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THE TRIAGE AND MANAGEMENT OF PREGNANT WOMEN IN A QUEENSLAND HOSPITAL EMERGENCY DEPARTMENT: A PARTICIPATORY ACTION RESEARCH STUDY

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In September 2012

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in the School of Nursing, Midwifery and Nutrition
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DECLARATION

I declare that this thesis is my own work and has not been submitted in any form for another degree or diploma at any university or other institution of tertiary education. Information derived from the published or unpublished work of others has been acknowledged in the text and a list of references is given.

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DECLARATION ON ETHICS

The research presented and reported in this thesis was conducted within the guidelines for research ethics outlined in the National Statement on Ethics Conduct in Research Involving Human (1999), the Joint NHMRC/AVCC Statement and Guidelines on Research Practice (1997), the James Cook University Policy on Experimentation Ethics. Standard Practices and Guidelines (2001), and the James Cook University Statement and Guidelines on Research Practice (2001). The proposed research methodology received clearance from the James Cook University Experimentation Ethics Review Committee (approval number H2627) and the Townsville Health District Service (protocol number 18/07).

18/12/12

______________________________ ____________

Signature **Date**

STATEMENT ON THE CONTRIBUTION OF OTHERS

This thesis has been made possible through the support of many people as follows:

Supervisors:

Principal Supervisor: Professor Colin Holmes
School of Nursing, Midwifery and Nutrition, James Cook University

Co-Supervisor: Professor Mary FitzGerald
(September 2007- December 2008)
Royal Hobart Hospital, Tasmania

Co-Supervisor: Associate Professor Lee Stewart
(January 2009 - Completion)
School of Nursing, Midwifery and Nutrition, James Cook University

Associate Supervisor: Dr Louis MacPherson
(Clinical Expertise in topic area)
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KEY TO TRANSCRIPTS

In the presentation of the research findings (Chapters 5, 6, 7 & 8), where excerpts from women and participants are included, the following abbreviations and font styles have been used:

Long quotes: All the names used within this thesis are pseudonyms. Quotes are indented from the left margin and italicised. Pseudonym name, transcript page and sentence number/s identify excerpts from participants interviews. For example:

> *Umm and so the nurse brought her out a umm ... panadol panadeine and a blanket and she said this is the best I can do. There's that wooden bench and she said you can lay on that. It's the best I've got, I'm really sorry and I was thankful that she was caring enough to do that, but I was so sad because I just wanted to take her somewhere private and let her grieve and let her cry and let her be ...*(Sue, p. 5, 200-206).

[ ] has been used to indicate where words of sentences have been removed from the middle of a quote (usually for the purpose of brevity). Three full stops in a row '...' indicate a pause for greater than 2 seconds.

Short quotes: When a few words, or word, have been applied within a sentence in the main text, this is specified through the use of double quotation marks. For example:

"The system just stinks" (Jodie, p. 12, 638).

Additional information:

Additional information is sometimes included within quotes to clarify words or to include a woman's/participant's action. Square brackets and the use of italics identify these. For example:

Yeah yeah she [the midwife] was really nice and she's like I don't know why emergency won't see you [Belinda laughs] but you know she...it was like she couldn't really say that, so I don't know whether I should say that or not (Belinda, p. 3, 115-118).

REFERENCING STYLE

EndNote X2 referencing software has been used to ensure consistency and accuracy with referencing of sources throughout this thesis. The referencing style chosen for this thesis is APA 5th edition. I acknowledge that EndNote X4 referencing software is available, which has APA 6th edition. However, to minimise any risk of data corruption by transferring from EndNote X2 to EndNote X4, the decision was made to continue using EndNote X2 to complete this document.

ABSTRACT

This study was born out of anecdotal evidence from midwives and nurses involved with the care of pregnant women, who claimed that the management of pregnant women in a Queensland Emergency Department (ED) could be significantly improved. Anecdotal examples were provided which demonstrated that care was often inconsistent and not woman-centred when a pregnant woman attended the ED. The ED is a demanding and sometimes chaotic place, with staff having to triage and manage the most life threatening and urgent cases on a priority basis. As evidenced by the literature and study results, the main reason for pregnant women attending an ED is threatened miscarriage; this can be a devastating event in the life of a woman and her family. Nevertheless, it is generally triaged as semi-urgent, since the woman's physical condition is stable. This particular scenario has led to many emotive media reports, uncorroborated by clinicians, such as, 'birth in toilet in hospital without care', as well as governments and hospital administrators advocating changes to practice, with little or no consultation or planning. Anecdotal evidence by both the ED staff and the maternity staff at the research hospital confirmed that such impulsive changes in this particular health district were considered inappropriate and unsustainable and would do little to address the problem and improve the care of pregnant women in the ED.

This study therefore endeavoured to employ a participatory strategy to improve the triage and management of pregnant women when they attended the ED. To achieve this the following research questions were formulated, with a view to conducting a participatory action research study: what is/are the current problem/s with the triage and management of pregnant women in the ED?; why does this problem exist?; how can the situation be improved?; and, how effective is the plan that has been developed and implemented in improving the situation for pregnant women who attend the ED?.

Action Research methodology underpins this study. Action research is a form of collective self-reflective enquiry undertaken by a group of people to understand and improve practices to real life problems (Kemmis & McTaggart, 1988). A key purpose of action research is to produce strategies and practical knowledge which are useful to people in everyday life (Reason & Bradbury, 2006). A multi-disciplinary Participatory

Action Research Group (PARG) made it possible to explore and assess the triage and management of pregnant women in the ED from the perspectives of nurses, doctors and midwives. Throughout each stage of the research process a critical theory standpoint informed the analysis, with particular reference to Habermas' theories of knowledge-constitutive interests and communicative action. The study's design promoted a collaborative working relationship with expert clinicians that created opportunities whereby the participants involved in the research were empowered to bring about positive change for pregnant women and themselves.

The PARG reached consensus on identifying three main themes in the data. These themes concerned communication, knowledge and care. The first theme, communication, was highlighted as an important area that staff could improve upon in order to provide more humanistic care to women, especially with the concept of language use. It was also identified that interdisciplinary communication was problematic as the different clinical areas had limited understanding of the everyday difficulties that each experienced, which caused tension and ineffective interactions. The second theme, knowledge, was also very important in understanding the reasons for inconsistency in the triage and management of pregnant women in the ED. Once the PARG identified the main areas of knowledge concern for both staff and women, they were able to formulate and implement strategies to help improve the situation. The final theme, care, represented the paucity of psychological care compared to physiological care in the ED and a deeper appreciation among the ED staff of the impact a miscarriage can have on a woman and her family. In addition, the PARG recognised situations where woman-centred care was in the background and health-professional centred-care was in the foreground, and the possible reasons for this occurring.

This research resulted in the implementation and the evaluation of a number of strategies that directly improved the triage and management of pregnant women in the ED. Strategies included, but are not limited to: new triage flow chart for bleeding in early pregnancy; advice sheet for women with bleeding in early pregnancy; revised policies; development of two pamphlets to distribute to women concerning miscarriage and available support options; education sessions for the ED staff on common pregnancy related conditions; new furniture and renovations to the gynaecology room in the ED; and a resource book for the ED staff containing information from the Stillbirth

and Neonatal Death Society (SANDS). Further significant outcomes of the research included an increased awareness and understanding by staff in both the ED and the maternity areas of the problems, and the improved networking and collaborative relationships that were established as a result of the PARG. This alone had significant impact on how women were triaged and managed in the ED. However, the most significant outcome is that even though the research is completed, the collaborative relationships that were established by undertaking this research continue to develop, grow and create a positive influence on the care that pregnant women receive when they attend this ED.

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LIST OF COMMONLY USED ABBREVIATIONS

Abbreviation	Definition
ANDAC	Antenatal Day Assessment Clinic
AR	Action Research
CNC	Clinical Nurse Consultant
D&C	Dilatation and Curettage
ED	Emergency Department
EPAS	Early Pregnancy Assessment Service
EPU	Early Pregnancy Unit
GP	General Practitioner
ISS	Ideal Speech Situations
KCI	Knowledge-Constitutive Interests
NGT	Nominal Group Technique
O&G	Obstetrics and Gynaecology
PAR	Participatory Action Research
PARG	Participatory Action Research Group
SANDS	Stillbirth and Neonatal Death Society
TCA	Theory of Communicative Action
USS	Ultrasound Scan

A table of commonly used abbreviations, used in more than one chapter, are supplied above. I have defined each abbreviation the first time it is cited in each new chapter for ease of reading.

GLOSSARY OF SELECTED MIDWIFERY TERMS

Amniotic Fluid Embolism *Is the escape of amniotic fluid through the wall of the uterus or placental site into the maternal circulation, triggering life-threatening anaphylactic shock in the mother.*

Antenatal/Antepartum *Is the time between conception and onset of labour, usually used to describe the period during which a woman is pregnant. Also referred to as prenatal.*

Antenatal Day Assessment Clinic (ANDAC) *Offers an alternative to hospital admission during the antenatal period where mother and or baby require assessment, monitoring and or treatment. This is a short day stay option for women with conditions such as hypertensive disorders during pregnancy, diabetes and concerns about foetal wellbeing. The clinic is staffed by at least one midwife and doctor.*

Birth Centre *Is a setting for labour and birth that provides midwifery led care and espouses a woman/family centred approach.*

Birth Suite *Is a unit or ward in a hospital that provides midwifery and obstetric care for pregnant women throughout their pregnancy (most often after 20 weeks gestation) and for labour and birth.*

Blighted Ovum *Is a fertilised egg that implants but does not develop. The gestational sac continues to grow but the baby does not develop within the sac. (Terminology not recommended for use anymore and is to be replaced with 'Early foetal demise' or 'Delayed miscarriage'*

Cardiotocography (CTG) *Is a machine or apparatus that allows a graphic response of the foetal heart rate to uterine activity (contractions) to be recorded.*

Complete Miscarriage *Is a miscarriage needing no medical or surgical interventions. Products of conception have been passed, and confirmed by ultrasound scan.*

Dilatation and Curettage (D&C) *Is a surgical procedure performed on women under general anaesthetic to scrap away the womb lining. It is often used as a form of treatment for incomplete miscarriage.*

Early Pregnancy Assessment Service (EPAS) *Is a coordinated service which provides pregnant women (usually up to 16 weeks pregnant, but some services will see women up to 20 weeks) with a place to go to receive assessment, treatment and counselling by professionals who are specialised in providing maternity care. These services tend to operate during business hours only (Monday-Friday) and no appointment or referral is necessary. Other names that are used interchangeably with EPAS are: Early Pregnancy Unit (EPU); Early Pregnancy Assessment Clinic (EPAC); and Early Pregnancy Assessment Unit (EPAU).*

Eclampsia *Is a life-threatening complication of pregnancy, results when a pregnant woman previously diagnosed with preeclampsia develops seizures and coma. Warning signs include, severe headache, blurred or double vision and nausea and vomiting.*

Ectopic Pregnancy *Is when the fertilised ovum implants outside the uterine cavity. Most common site is the uterine tubes.*

Foetal Heart Rate *Is the number of times the foetal heart beats per minute; normal range is 120 to 160 beats/minute.*

Foetal Monitoring *Is where the baby's heart rate is monitored in relation to the pregnancy and or during birth. This can be done intermittently or continuously using a doppler ultrasound or by using a cardiotocography machine.*

Gestation *Is the number of weeks since the first day of the last menstrual period; from conception through birth (i.e. the pregnancy).*

Gestational Diabetes *Is a form of diabetes of variable severity with onset first occurring during pregnancy.*

Gravid Uterus *Is a pregnant uterus.*

Hypercoagulable State in Pregnancy *Refers to normal physiological changes that occur with blood when pregnant. Fibrinogen, factors VII, X and XII all increase along with the number of platelets. Combined with a decrease in fibrinolytic activity these changes tend to prevent excessive bleeding at birth.*

Hyperemesis Gravidarum *Is excessive vomiting during pregnancy, leading to dehydration, electrolyte imbalances and starvation.*

Hysterotomy *Is a surgical incision of the uterus, performed as a method of abortion for a foetus greater than 12 weeks gestation.*

Incomplete Miscarriage *Is the loss of a pregnancy before the foetus is viable outside the uterus (miscarriage), however, products of conception (foetus and tissue) are not completely expelled. Women who have retained products for more than a week after the receiving a diagnosis of miscarriage, will normally be counselled to have a dilatation and curettage.*

Inevitable Miscarriage *Is a miscarriage that is imminent or is in the process of happening.*

Midwifery Continuity of Care Models *Is care that begins in early pregnancy, continues through pregnancy, labour and birth, and the postnatal period and is provided by the same midwife or by a small group of midwives.*

Miscarriage *Is the loss of a pregnancy before the foetus is viable outside the uterus; loss occurring before 20 weeks of gestation or if gestation unknown a foetus weighing less than 400 grams. About one-in-four pregnancies end in miscarriage and most (75%-80%) miscarriages happen in the first 12 weeks of pregnancy.*

Missed Miscarriage *Is a confirmed non-viable pregnancy with no bleeding; the foetus dies but the woman's cervix stays closed, there is no bleeding and the foetus continues to stay inside the uterus.*

Placenta *Is a specialised oval shaped organ that connects the foetus to the uterine wall and provides oxygen and nutrients to the foetus.*

Placenta Praevia *Is the abnormal implantation of the placenta in the lower uterine segment.*

Postpartum *Is the period following childbirth – usually the first six weeks.*

Preeclampsia *Is toxaemia of pregnancy, characterised by hypertension, protein in the urine, and oedema.*

Prolapsed Cord *Is where the umbilical cord becomes trapped in the vagina before the foetus is born.*

PV Bleeding *Refers to bleeding from the vagina; per vagina bleeding. If occurs during early pregnancy may progress to a miscarriage.*

Recurrent Miscarriage *Three or more consecutive miscarriages by the same woman.*

Threatened Miscarriage *Any vaginal bleeding other than spotting before 20 weeks gestation.*

Threatened Premature Labour *Is labour that threatens to commence between 20 and 38 weeks gestation.*

Thromboembolism *Is the formation of a clot (thrombus) in a blood vessel that breaks free and is carried by the blood stream.*

Trimester *Is three months, or one third of the gestational time for pregnancy. There are three trimesters in a pregnancy.*

Viable Pregnancy *Live ongoing pregnancy where the foetus is situated in the uterus.*

Sources: *(Davidson, London, & Ladewig, 2008; Fraser & Cooper, 2003; Health Data Standards Committee, 2006; Pairman, Tracy, Thorogood, & Pincombe, 2010; Stables & Rankin, 2010; Vardhan, Bhattacharyya, Kochar, & Sodhi, 2007).*

CHAPTER 1: INTRODUCTION

"Begin at the beginning," the King said, very gravely,

"and go on till you come to the end, then stop."

(Lewis Carroll, Alice in Wonderland)

This study used a participatory action research approach to develop a better understanding of how pregnant women were triaged and managed in a regional Queensland hospital emergency department. The chief investigator worked collaboratively with emergency nurses and doctors, midwives and obstetricians at this hospital to develop an understanding of the exact nature of the problem, which resulted in the implementation of a number of changes that improved the care pregnant women received when they attended this emergency department.

Introduction

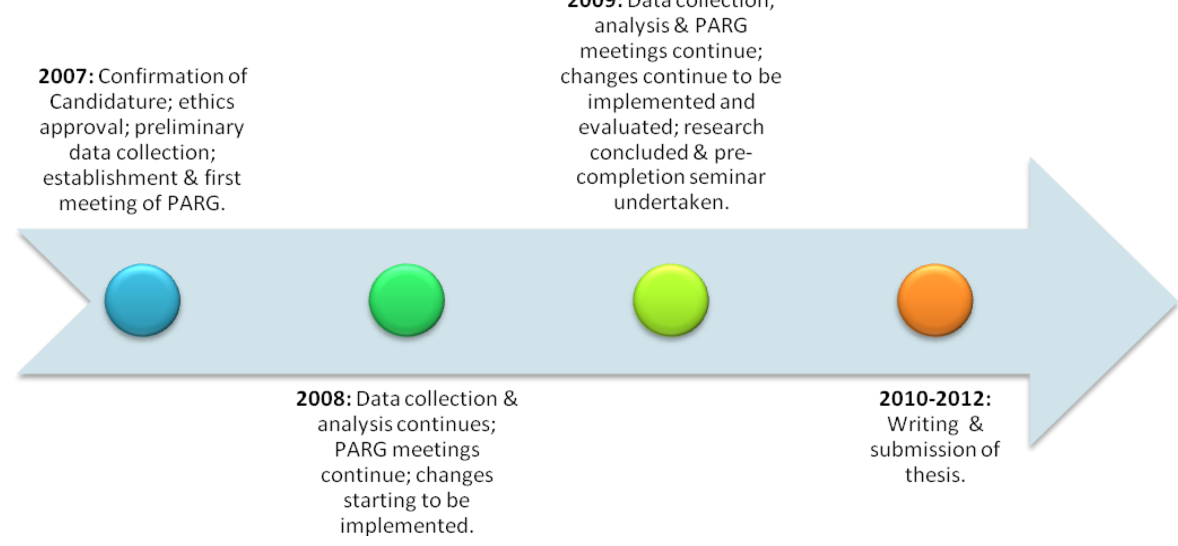
This study was conceived late 2006 following anecdotal evidence from midwives and nurses involved with the care of pregnant women, who identified that a problem existed with the triaging and management of pregnant women in a Queensland hospital emergency department (ED) (see Figure 1.1 for a brief overview of the PhD timeline). Anecdotal exemplars were provided which demonstrated that care was often inconsistent and not woman-centred when a pregnant woman attended this ED. This is supported by Pearlman and Desmond (2005) who claim that pregnant women can present to the ED with a myriad of complaints, making appropriate triage and management challenging. As evidenced by the literature (Brownlea, Holdgate, Thou, & Davis, 2005; Yuk Sang Ting, 2008) and this study's results, pregnant women attending an ED for early pregnancy related problems is a frequent phenomenon. Therefore based on anecdotal evidence from this hospital site, I felt, as did a number of my clinical colleagues, that this problem should be investigated to determine the exact nature and extent of the problem and the reasons why the problem existed.

In embarking on the decision to commence a PhD to investigate the above stated problem, I refer you to Pearson's statement below that fittingly portrays how I was feeling at the time:

> When Alan Pearson was asked about what tips he would give to someone new to research, his response was "I am not sure, but I would say that research itself is not mysterious or particularly clever. It requires real interest in questions, painstaking patience in design, doggedness in execution and a passion to finish a job in writing the report. Most importantly, though, it is a futile enterprise, except in terms of one's ego, if the findings are not translated into action in policy and practice". (Pearson, 2010, p. 94)

The key words that resonated with me were, "real interest in the questions", "painstaking patience in design", "passion to finish" and "futile enterprise...if the findings are not translated into action" (p. 94). The final statement is synonymous with action research (AR) and is one of the many reasons that AR was the most appropriate methodology to use, as the intended result was to implement changes that would improve the situation for pregnant women who attended the ED.

Figure 1.1 Overview of PhD timeline



This chapter will commence with a précis of my professional background to provide a context for my motivation for wanting to undertake a research study of this nature. Following this, background information pertaining to the research problem will be provided pursued by a brief overview of the methodology that was employed to undertake this study. Next, the significance of the study will be justified with the accompanying aims, questions and outcomes made apparent for the study. Finally, demographic information about the research setting and the normal everyday routines and processes of the hospital, in relation to pregnant women and the ED, will be described. It is hoped that this will provide a rich description of the research setting so that the transferability of the research findings to other settings can be determined. It is also important to make known the political, social and cultural backdrop that was occurring throughout the research, as this impacted directly and indirectly on the conduct of the study. Using a critical lens to view data goes hand in hand with an AR approach (Kemmis & McTaggart, 2005).

Before moving on to the substantive and necessary parts of this introductory chapter some 'housekeeping' type information about the thesis should be explained. Firstly, a glossary of selected midwifery language or terms has been provided just prior to the commencement of chapter one. The glossary affords a more robust description of some of the midwifery terminology used in the thesis and can be accessed if the reader so chooses. The second point is the pseudonym given to the hospital research site. To the best of my ability I will endeavour to protect the actual name of the hospital research site, although this is quite difficult when demographic information is required to provide a context for the study. However, for all appendices or when the hospital research site is referred to by name, it will be known as the *Many Happy Returns* hospital. The final point is in reference to Lewis Carroll (1832-1898), the English author, mathematician and Anglican clergyman who wrote the well-known children's books, known as '*Alice's Adventures in Wonderland*' and the sequel '*Through the Looking Glass*' (Merriman, 2007). I have decided to use quotes from his classic works to provide a little light relief throughout the thesis. I consider Lewis Carroll to have been an exceptionally clever and creative man in terms of how he used words and language to highlight the ridiculousness of some situations or the obviousness of others; it appeals to me and I hope that you will also enjoy some of his more well-known quotes throughout this thesis. The inaugural Lewis Carroll quote that commences this thesis, I think, is quite

appropriate; "*Begin at the beginning," the King said, very gravely, "and go on till you come to the end, then stop."* This was good advice in the writing of the thesis and I hope it will be helpful in the reading of it also.

Researcher's professional background for study

I have been a Registered Nurse for 24 years and Endorsed/Registered Midwife for 15 years. I have over ten years clinical experience working in EDs around the country, including Townsville, Brisbane, Melbourne, Canberra and remote localities, such as Woomera. In 2000, I moved from the clinical area to the university sector and became a full-time Lecturer for the School of Nursing, Midwifery and Nutrition at James Cook University, teaching in all three years of the undergraduate nursing program and in a number of postgraduate programs. I held the position of Midwifery Course Coordinator for a number of years and was a member of a funded AR study in Queensland during 2000-2002, which looked at the appropriateness of women's health services in Mount Isa, western Queensland. In 2011, I moved to the School of Medicine and Dentistry at James Cook University to take on the role of Senior Lecturer, teaching in the Clinical Skills Unit. My knowledge and clinical background in emergency nursing and midwifery make this research topic ideally suited to me.

To help explain why this research topic interested me so much, please allow me to share a little more of my clinical background. I graduated as a Registered Nurse in 1988 after completing my hospital based nursing training at the Townsville General Hospital. During the third year of my training I spent a significant amount of time in the ED, which I loved. The ED culture was different to anywhere else in the hospital I had worked; it was exciting, rewarding, fast-paced and I enjoyed the anticipation of never quite knowing what may happen from one minute to the next. Upon graduating as a Registered Nurse in 1988 I was assigned to work in the Mental Health Unit and after six months was transferred to the ED. Upon reflection, I was very fortunate to have been provided this opportunity which unquestionably made me a better emergency nurse when triaging and managing people that presented with mental health problems to the ED.

With this same thought, I decided to undertake my midwifery training in 1994. I had worked in a number of EDs throughout the country by this stage; Townsville, Brisbane, Canberra, Melbourne and rural departments such as Woomera in South Australia. In all of these emergency settings I had been confronted by pregnant women presenting with various complaints. I wanted to have the knowledge and confidence to triage and manage these women to the best of my ability. By the end of 1995 I had gained extensive experience and knowledge in emergency and trauma nursing and was also a newly qualified Endorsed Midwife. The philosophical transition to becoming a midwife was the most challenging aspect for me. Learning to see pregnancy as a normal healthy event in a woman's life and not an illness that needed medical intervention was a very different paradigm to the sickness and intervention models that I had been exposed to my entire career. The ED environment is 'set up' to cater for sick people, which of course is reasonable. Hospitals are meant to be for sick people and yet healthy pregnant women that have no complications go to hospital to have a baby. These conflicting ideas intrigue me. My desire to learn more about midwifery and educate my colleagues, family and friends about the normality of pregnancy became important to me.

Therefore, the combination of my experience as an ED nurse and being a midwife made this research topic of great interest to me. I essentially felt duty-bound to try and help find a solution to this problem because of the links I had with both areas of practice. I have been asked by colleagues and family, 'which area do you like better?' I can honestly answer that I love both areas of practice and understand the challenges that both areas face in their everyday work lives. For these reasons, I was well positioned to facilitate an AR research project to help improve the care of pregnant women in the ED.

Background to problem

In my role as Midwifery Course Coordinator (2004-2006) for the School of Nursing, Midwifery and Nutrition, James Cook University, collegial relationships were developed with a number of midwives from the hospital research site. These relationships enabled me to remain connected with the clinical environment and stay sensitive to real world problems. I am also a member of the Australian College of Midwives' (ACM) local group that meets regularly and provides a forum for midwives

to discuss a myriad of issues. It was because of the midwifery course coordinator role and my involvement in the local midwives group that I originally became aware of concerns with the way pregnant women were being triaged and managed in the ED.

Anecdotal reports from midwives suggested that women who present to the ED could be better managed. Midwives at this hospital conveyed two scenarios that had occurred. The first scenario was of a pregnant woman who presented to the ED with asthma. Asthma is not a pregnancy related complaint and requires medical management and review. This woman's asthma was well managed, but her stay was prolonged as she was kept in the ED for review by an obstetrician. This woman was then admitted, for further monitoring of her asthma, to the maternity ward which the midwife felt was inappropriate as her principal problem was medical and not pregnancy related. The second scenario is about a woman who presented with a pregnancy related problem. She was 16 weeks pregnant, experiencing vaginal bleeding and was very distressed. After considerable time in the ED she was discharged home with a diagnosis of threatened miscarriage. The woman was discharged from the ED without being seen by a midwife or obstetrician and advised to see her General Practitioner within a week for follow-up. In both instances the women were denied specialist care available in the hospital.

A contributing background factor to the exacerbation of this problem over the last ten years came with the opening of the new hospital, which resulted in the closing of the old public general hospital and the public maternity/women's hospital for the township. The old maternity hospital was a satellite facility about 12 kilometres from the main public general hospital. The maternity hospital contained the antenatal clinic, labour and birthing rooms, maternity ward, neonatal intensive care unit as well as a separate gynaecology ward. The services and staff from the maternity hospital were amalgamated with the new hospital services and staff, when it opened in 2001. When the maternity hospital was operational, women would present for all pregnancy related concerns, regardless of time of day. A busy 'outpatients' clinic in the form of an examination room would operate throughout the night, staffed by the registrar on-call for the maternity hospital and ward nurses and midwives as required. This greatly reduced the number of pregnant women attending the public general hospital ED; pregnant women tended to only present in emergency situations to the public general hospital ED and instead preferred to go to the maternity hospital. Moreover, ambulance

personnel would transport non-urgent pregnant women to the maternity hospital and not the ED. However, upon the maternity hospital's closure, all pregnant women were redirected to the new public hospital ED, increasing the number of presentations by pregnant women significantly.

Overview of methodology

The cyclic nature of Participatory Action Research (PAR) (i.e. critical reflection, planning, action, observation and further reflection) lends itself to clinically situated problems, of which this is one, and seeks to bring together action and reflection, theory and practice, in participation with others, in the pursuit of practical solutions to problems (Reason & Bradbury, 2006). The cyclic nature adds rigour as a result of the information and interpretation gained from earlier cycles being challenged in later cycles (Dick, 2004).

Participatory action research was chosen because a change of practice was sought that would improve the care that pregnant women received when they attend the ED. "The purpose of action research is to work towards change, not merely to describe a current situation" (Winter & Munn-Giddings, 2001, p. 18). Furthermore PAR allowed a diverse group of health professionals (midwives, obstetricians, emergency nurses and emergency doctors), to negotiate their various agendas in an atmosphere of trust and collegiality (Kemmis & McTaggart, 1988; Stringer, 1996; Wadsworth, 1998). The benefit of employing this method is that all participants were involved in an ongoing cycle of reflection and evaluation that lead to group decision making and action (Minichiello, Sullivan, Greenwood, & Axford, 1999).

My role was one of facilitator and resource person throughout the research (Stringer, 2007). I assisted the members of the participatory action research group (PARG) in defining the problems clearly and supported the group to work towards effective and sustainable solutions. I also played the role of motivator, organiser, educator, presenter, helper and friend when it was needed.

It seemed fitting to adopt a critical perspective for this study. Critical theory is concerned with bringing to light issues of power and oppression, and aims to expose processes which promote injustice and hegemony (Crossley, 2005; Crotty, 1998). The Queensland healthcare system is known for its disempowering abilities and power inequality is often rife within hospital settings. I was influenced by Habermas' theories of communicative action and knowledge-constitutive interests because they are consistent with a PAR approach. I will explore the relationship between the two at length in chapter three.

Significance of this study

Emergency departments in Queensland and around the world are increasingly being used for non-emergency care for a whole host of reasons which will be elaborated in chapter two. This increases the stress on ED staff and reduces resources available to individuals who present to the ED. One cohort of individuals who often find themselves needing to attend the ED for non-emergency type care are pregnant women with early pregnancy problems, and more specifically women who may be having a miscarriage (Indig, Warner, & Saxton, 2011). In this regional Queensland city there are limited options for pregnant women if they require assistance with early pregnancy related problems. The most readily accessible option and therefore the one that is most often chosen is the ED. This is unlikely to change anytime soon due to the restricted availability of other models of care for pregnant women with early pregnancy related concerns in this city. For this reason alone, this study has had a great deal of significance for pregnant women and their families within the community.

As mentioned earlier, this research was first conceived in late 2006 after discussions with staff at the hospital research site about the concerns they had over the way pregnant women were being triaged and managed in the ED. By August 2007, unconditional ethical approval had been received and data collection commenced in September 2007. At this time (September 2007) there was a highly publicised incident where a woman miscarried a 14 week foetus into a public toilet in the waiting area of a public hospital ED, in New South Wales (NSW). This incident produced headlines in most major national newspapers and a plethora of online news sites as well as televised

news shows, such as Channel Seven's '*Sunrise*'. The headlines were scathing of the ED staff and called for better care options for pregnant women that attend the ED. This event caused a flurry of women to contact media outlets with their own experiences of miscarrying in an ED. In response to this public outcry the NSW government made two announcements. Firstly, the day after the incident, the NSW Minister for Health announced a new model of care that would be implemented across NSW. The new model of care was designed for pregnant women who were experiencing a miscarriage and stated that all pregnant women attending hospital EDs would immediately be transferred to the maternity unit. Of course, not all hospitals with an ED in NSW had a maternity unit. Therefore, the second announcement had two parts. The first part, the instigation of a government inquiry (later to be known as the Hughes/Walters Inquiry) into the incident, and the second part, the additional remit of developing protocols so that the new model of care could be implemented across NSW, for hospitals with and without maternity units (NSW Health, 2007). At the time of this announcement feedback was sought from the ED staff and the maternity staff at the research hospital site about the feasibility and practicality of the proposed model. All agreed that such a model would not be appropriate in their current health care setting and would do little to address the problem. A short time after this, the NSW government announced the need for a "Special Commission of Inquiry into Acute Care Services in NSW Public Hospitals" and cited the miscarriage incident as one of the catalysts for the inquiry; this is referred to as the 'Garling Inquiry' (Skinner, Braithwaite, Frankum, Kerridge, & Goulston, 2009, p. 78). Recommendations from both these inquiries will be reviewed in the discussion chapter later in the thesis.

After the release of the Hughes/Walters report in October 2007, the Director of the ED and ten other emergency staff specialists at the hospital where the 'incident' happened wrote a letter to the *Sydney Morning Herald* newspaper, asserting that the inquiry had done little to uncover the real reasons why this incident occurred. The Director of the ED, Dr Robert Day and others, stated that the fundamental problem was the overcrowding in EDs due to chronic inpatient bed shortages and that the new model of care that had been proposed would be unlikely to prevent these types of incidents happening again. It was also noted, with concern, that no emergency medicine representative had been included on the review team which resulted in a number of the recommendations being unhelpful and erroneous (Day, et al., 2007). When I reflected

on this comment it reinforced the significance of using a PAR approach to undertake this research.

As mentioned these events were happening at the same time that the preliminary data collection commenced for this study. I recall watching the television morning news show *Sunrise* the day after the woman had miscarried in the toilet of the NSW hospital ED. The hosts of the show were saying how terrible it was that this had occurred and something had to be done about it, and asking whether there was anyone actually investigating this problem. I vividly recall sitting there talking back to the television screen, saying yes I am looking at this problem and I and others really want to try and improve this situation for women in our community. Clearly they did not hear me, but all of these events, news reports, television reports and anecdotal evidence only served to reinforce the significance of conducting this study. By using a PAR approach and working together we were able to better understand the problems and produce reasonable, sustainable and practical changes to improve the situation for pregnant women who attended this ED. The findings and changes to practice will be made explicit throughout this thesis.

Aims, questions and outcomes of the research

Research aims

This research project had five main aims. These are:

1. Collect data to assess the nature and the extent of the problem with triaging and management of pregnant women in a Queensland hospital ED. Furthermore, reasons why this problem arose and persisted were investigated.
2. Collaborate with the ED staff and the midwifery/obstetric staff at the hospital research site to develop and implement strategies for addressing identified areas of concern.
3. Facilitate/create opportunities whereby the participants involved in the research can empower themselves.

4. Evaluate the effectiveness of the strategies implemented and make further recommendations for refinement if needed.
5. Evaluate my effectiveness as a PAR facilitator.

It was also hoped that during the course of the research study, some of the participants would develop an understanding of, and the skills to undertake action research independently in the future.

Research questions

Research ideas can be derived from theoretical considerations or begin from the desire to solve practical problems that will improve the situation for those involved (Daly, Elliott, & Chang, 2002). This project and the questions that follow arose from the latter. The research questions that were answered by this study are:

1. What is/are the current problem/s with the triage and management of pregnant women in the ED? Why does this problem exist?
2. How can the situation be improved?
3. How effective is the plan that has been developed and actioned in improving the situation for pregnant women who present to the ED?
4. How do I, as the PAR facilitator, support co-researchers and/or participants to find solutions and generate practice knowledge?

Research outcomes

Projected outcomes for this research project included the following:

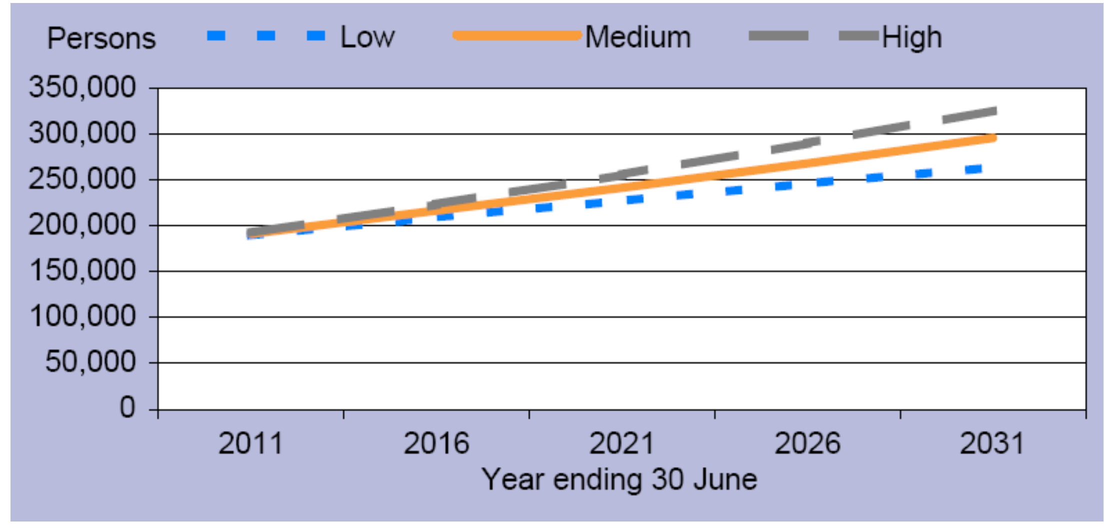
1. A better understanding of the nature of the problem so that appropriate strategies can be implemented to improve the management of pregnant women through ED.
2. Improved collaboration between clinicians in the ED, clinicians in the maternity area, and the researcher at the university, to develop strategies and hence improve service delivery to pregnant women.

3. Through the process of critical reflection and clinical supervision the PAR facilitator will create an environment whereby the participants are empowered to bring about change for the improvement of service delivery to pregnant women who attend the ED.

Context of the research setting

At 30 June 2011 the estimated population of the city in which the research hospital was located was 189,931 people (Office of Economic and Statistical Research & Queensland Treasury and Trade, 2012). The population and birth rate have steadily increased over the last decade with the Department of Demography and Planning projecting the population to be between 209,472 and 223,808 persons by the year 2016, and by 2031 the population is expected to be between a low and high range of 263,870 and 325,929 (Office of Economic and Statistical Research Queensland Government, May, 2011). Figure 1.2 illustrates the population trends and projections for the city over the next 20 years.

Figure 1.2 Population trends and projections for research city site



Source: Office of Economic & Statistical Research, Queensland Government (May, 2011).

A Clinical Nurse Consultant working in the birth suite at the research hospital site claimed that birth rates for the city have been steadily increasing with an estimated 10% rise in births each year at the public hospital (M. McAuliffe, personal communication, 1 September 2009). For the year 2008 there were 2,173 births at the research site hospital

and in 2010 there were 2,308 births. There are also approximately 1200 births per year at the local private hospital; the combination of both equates to over 3300 births a year for the city. This is in contrast to the data obtained from the Australian Bureau of Statistics which shows birth registrations for the city to be a lot lower. For example in 2008 there were a total of 2,736 recorded births for the city (Australian Bureau of Statistics, 2011). This difference could possibly be due to the delay in some families registering the birth of their baby. The other possible explanation is that women travel to the city to have their babies from rural and remote locations, as sadly maternity services have closed in a lot of these smaller towns. In such cases, the birth is recorded in the hospital figures, but when the parents register the birth they may write their home town.

Political, social and cultural environment

Because a critical PAR approach was used, it is important to consider the political, social and culture factors at the time of the research and how these may have impacted on the study and the people involved in the study. It is of particular importance to mention that during the period between August 2008 and August 2009, during the course of the study, there was an escalation in media reports about the *Many Happy Returns* ED. There was also noticeable disquiet among many ED staff due to overcrowding in the department and lack of inpatient bed availability, both of which had potential to create dangerous situations for both staff and patients. Let me take you through a timeline of some of the events which occurred during this twelve month period (see Figure 1.3).

On 28 August 2008 the ABC News (2008) reported that doctors at the *Many Happy Returns* hospital were instructed not to talk with the media about the hospital having been put on internal disaster status or ‘code yellow’. The code yellow was initiated because the ED had 23 patients requiring an inpatient bed and there were none available in the hospital. On the 7 September 2008 the Sunday Mail (Judge, 2008) ran a story with the headline “Elderly man dies waiting 8 hours for a [*Many Happy Returns*] Hospital bed”. The story claimed that this gentleman, who had cancer, died on a trolley in the ED after a long delay because there was no inpatient bed for him. The Queensland Premier at the time commented that a lot of our hospitals were under stress,

particularly EDs. Anecdotal reports from ED colleagues confirmed that overcrowding and lack of inpatient beds was a continuing problem they faced and one which they were verbalising more and more.

Figure 1.3 Timeline of media events between August 2008- November 2009

In February 2009, an expensive print, television and radio campaign was rolled-out by Queensland Health to educate the public on EDs and the way they operate. For example, it explained that the sickest are treated first and there may be long waiting times if your condition is not life threatening. It was reported that Queensland Health spent $347,097 on the campaign (O'Reilly, 2009a). On 18 March 2009, the Member of Parliament (MP) for the township raised serious concerns about the state of the ED at the House of Representatives Parliamentary Debate. The MP identified the hospital as "Queensland's most under-pressure hospital, with up to 26 people awaiting transfer from the emergency department at any one time" (Commonwealth of Australia, 2009, p. 3103).

On 22 May 2009 another news report was released on the state of the *Many Happy Returns* ED; this time announcing that elective surgeries had to be cancelled due to the ED being inundated with patients requiring an inpatient hospital bed. One month later the local paper ran an article on chronic staffing shortages at the hospital (Skene, 2009) followed by another ABC News article referring to the bed shortage issue as "still choking Qld emergency depts" (Pollard, 2009).

In August 2009, a very sad event affected the community. A wife and mother of two young children died from swine flu. Her name was Sheridan Wilson and she was a school teacher at my children's school. Sheridan presented to the *Many Happy Returns* ED in extreme discomfort from flu-type symptoms. This was at a time when all of Australia was on alert and a number of people had already died from the virus. As a result of the outbreak of the swine flu, the number of hospital staff reporting sick created severe shortages, decreased bed availability and increased stress on staff at this hospital. The Queensland Health policy, which changed on a number of occasions, stated that only 'at risk' individuals (i.e. pregnant women, elderly, obese, Indigenous people and those with other health problems) were to be offered Tamiflu, an antiviral medication. Financial considerations were at the base of this policy, as it was deemed too expensive to swab everyone and give them Tamiflu medication, and so the most 'at risk' were prioritised. As Sheridan was otherwise healthy, she was discharged home from the ED with advice to rest and take Panadol as required. Over the course of the next week Sheridan's condition deteriorated and she visited two further general practitioners to seek help and was given the same advice as per the Queensland Health directive. Her family eventually brought her back to the ED, at which time she was

admitted to the Intensive Care Unit; she died the following day after being transferred to Prince Charles Hospital in Brisbane. I mention this event as it had a significant impact on the ED staff and members of the PARG. No one individual was to blame for this tragic and sad event, but knowing that someone presented to the ED for care and did not receive the treatment they needed, obviously can have a profound effect on people, especially those who dedicate their working lives to helping people in need.

Ten days following this tragic event another news article was published by the Australian Medical Association (AMA) Queensland. The article called for the State Government to implement immediate solutions to help address significant bed shortage issues at the *Many Happy Returns* Hospital. They reminded the public (and government) that additional beds and hospital expansion plans had been promised in the 2006 election and yet these had not materialised (Australian Medical Association Queensland, 2009a).

I spoke with a colleague at the hospital in late August 2009 and she informed me that in the last three months office space at the hospital had been converted into wards and overall the hospital had seen an increase of approximately 30 beds, making the inpatient bed count for the hospital approximately 500 at that time. The last news report on the timeline is a positive one. Once again, the AMA Queensland announced at the end of November 2009 that the Queensland Premier had agreed to fast track urgently needed upgrades to the *Many Happy Returns* Hospital bed numbers and the ED (Australian Medical Association Queensland, 2009b). This was met with relief at the hospital site, although they knew that it would be sometime before the upgrades materialised. However, it was a definite plan and a way forward and planning for the development began in 2010.

Hospital research site

The hospital research site lies within the state of Queensland, Australia and is governed by Queensland Health. The hospital itself is relatively new, only opening its doors in 2001. The hospital is classified as a tertiary referral hospital and is approximately 1300km away from the main referral hospital in the state's capital. Hospital facility services include specialties such as intensive care, hyperbaric medicine, spinal

rehabilitation and cardiac surgery. A full range of allied health services are available as well as a wide range of clinics (Queensland Health, October, 2010). As at the end of June 2012 there were 541 doctors and 1,932 nurses employed at the hospital. The first three months of 2012 saw 15,015 patient admissions and 635 babies born at the hospital (Queensland Health, 2012b).

The hospital has been undergoing a 437 million dollar redevelopment since 2010 with the estimated time for all expansions and upgrades to finish in 2014. The redevelopment has added an additional 100 inpatient beds, making a total of approximately 600 inpatient beds currently. This is a considerable improvement on the bed numbers when the hospital was opened in 2001 with approximately 450 inpatient beds, but still far short of what is needed for the population it serves.

The redevelopment of the hospital has been divided into four stages. Stages one and two, which are now complete, saw the development of the new ED, maternity unit, intensive care unit, medical imaging, theatre block and neonatal intensive care unit. Stages three and four, which are due to conclude by June 2014, include redevelopment of the cancer services, pathology, mortuary, kitchen and central energy facility (Queensland Health, 2011). This is a mammoth undertaking, considering the hospital is just over a decade old. Even before the hospital opened its doors, staff knew that the hospital would not be adequate to meet the needs of the community it was built to serve, and many have since been advocating for further beds and facilities. The redevelopments have taken over a decade to be realised and still do not fully address the community's needs, but they are a significant improvement and a great achievement for those who agitated for better health services for our region.

The ED at the hospital research site

The research hospital site ED has been overwhelmed for many years, which is a common phenomenon across the state and country. Queensland's ED attendances are the fastest growing in the country; growing 34% in the last four years (Queensland Health, 2012b). There is only one hospital ED in the city, which services not only the local population of approximately 190,000 people, but also acts as the main referral centre for the northern and north-western region of the state, this would account for at

least 600,000 people. As mentioned above the hospital ED commenced redevelopment in 2010 and the new expanded ED was officially opened 17 July 2011, despite Cyclone Yasi's efforts to delay progress. The ED presentations are approximately 70,000 per annum with an approximate monthly figure of 5,800 presentations and an average of 200 people at day presenting to the ED for treatment (Queensland Health, 2012b).

Throughout the research period (2007-2009) the ED had a total capacity of 40 beds and six short stay beds. One of the consultation rooms was a dedicated obstetrics and gynaecology room with a shower and toilet (Figure 1.4). In June 2011, with the opening of the new ED, the total capacity of ED beds increased to 75 along with a total of 16 short stay beds. The new department also has a dedicated obstetrics and gynaecology room with a shower and toilet, which was largely secured through the efforts and advocacy of one of the PARG members (Figure 1.5).

Figure 1.4 The ED O&G room – old department floor plan

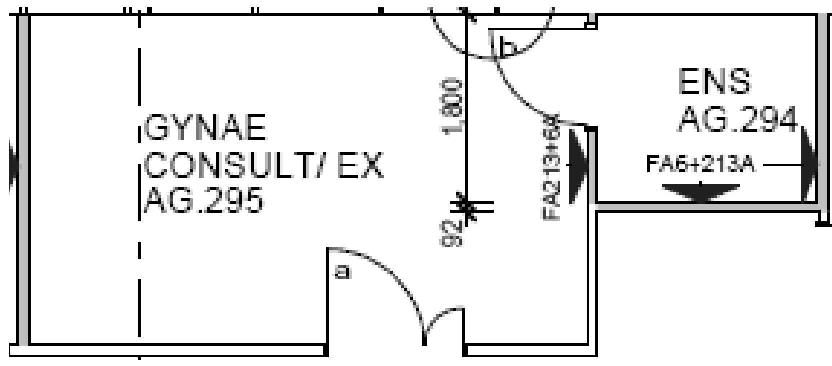
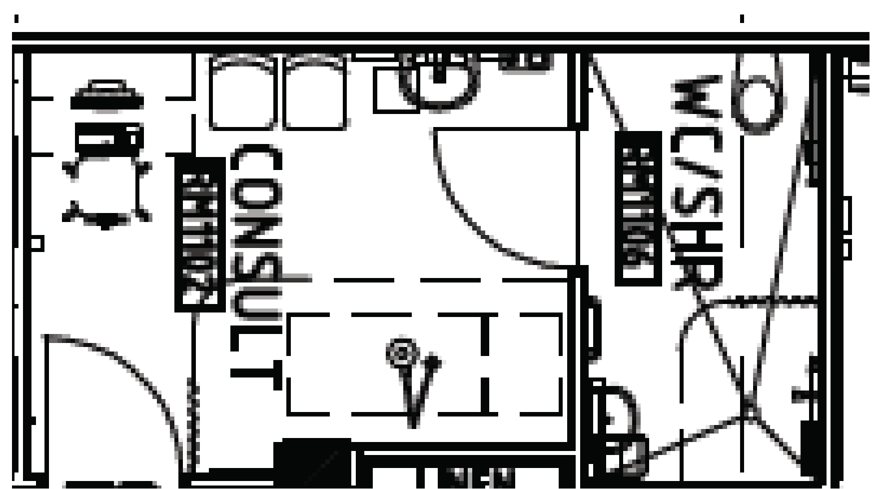


Figure 1.5 The ED O&G room – new department floor plan



Emergency department short stay units (SSU) were opened with the aim of improving care of patients through extended observation and treatment, while reducing unnecessary inpatient admissions and associated health care costs. The SSU are managed and staffed by the EDs in Queensland, but are not meant to be used as an ED overflow area for patients who are waiting for an inpatient hospital bed. Ideally, the purpose of SSUs is for people who do not require inpatient admission, but require observation or treatment for less than 24 hours (Queensland Health, 2012a).

The staffing of the ED prior to July 2011 consisted of approximately 80 to 100 nurses who worked a combination of both full-time and part-time positions and consisted of both Enrolled Nurses and Registered Nurses. Overall there was a higher portion of junior ED nurses compared to senior ED nurses. Four of the Registered Nurses also held the qualification of a Registered Midwife. The staff mix with ED doctors also consisted of a higher portion of junior doctors, compared to ED registrars and ED physicians. Post the re-development of the ED and with the increase in beds, the staffing numbers have also increased for both the nursing and medical staff. Exact numbers are unknown, but additional nurses and doctors were employed in the ED to accommodate the increased capacity of the department. Anecdotally, I have been informed that there has been an increase in ED registrars since July 2011, to provide more support for junior doctors in the department. The staff mix of junior to senior nurses remains relatively the same.

Typical pathway through the ED

Most people present directly to the triage desk upon arrival at the ED. The triage nurse (who is a Registered Nurse skilled in the art of triaging) interviews the person and does a brief assessment to determine the nature and severity of the person's condition. This generally takes about two to three minutes. The triage nurse will then assign a triage category between one and five to the person, referred to as the Australasian Triage Score (ATS). An ATS of one is life threatening conditions and will be seen immediately by the ED doctor and at the other end of the scale, an ATS of five are non-urgent and may be required to wait a number of hours to be seen by the ED doctor. After the person has been seen by the doctor they will either be discharged home with advice and treatment, admitted to the short stay unit of the ED for further observation and treatment, admitted to the hospital as an inpatient or referred to another health practitioner for further investigations and or management.

Maternity services at the hospital research site

During the period of the research (2007-2009), the maternity unit was a 25 bed unit housing a mix of both antenatal and postnatal women plus gynaecological patients. Combined units such as this are referred to as ‘integrated units’. The health care system has constructed this unit in such a way that nursing and midwifery work in an integrated way. The unit was often at 120% capacity, meaning that two women in one bed in one day would frequently occur. As mentioned above, the maternity unit was part of stages one and two of the hospital redevelopment and opened in June 2011. The new unit is located directly above the new ED on floor two of the northern block building. With the opening of the new maternity unit in June 2011 the bed numbers increased to 34.

In addition to the maternity unit, there exists an antenatal clinic and a birth suite within the hospital. The hospital provides an inpatient and outpatient maternity service, community midwifery home visiting service, antenatal education service and community midwife clinics (Queensland Health, 2009). The community midwife home visiting service is a midwifery led service providing antenatal and postnatal care for women at home; they usually see women in their home for up to seven days postnatal. The birth suite is able to provide care for both low and high risk women, with women able to self-refer after 20 weeks gestation.

There are a number of different models of care offered at the hospital, but only one option if a woman chooses continuity of care by a known midwife. This option became available with the opening of the birth centre in late 2008. The birth centre building is located on the same grounds as the hospital site connected by a covered walkway. As a member of the birth centre implementation committee, I know how hard consumers and midwives advocated and lobbied for this choice of service for women in the community and how much negotiation was required with our medical counterparts to get this service up and running. The service has now been running for nearly four years with great success; and the staffing has more than doubled in an attempt to accommodate the needs of the community.

Typical pathway through the ED for a pregnant woman

The same process as explained above applies to a pregnant woman who presents to the ED with a non-pregnancy related concern or if she is less than 20 weeks pregnant. However, there is an alternative pathway if the woman is 20 weeks or more pregnant and presents with a pregnancy related concern. The triage nurse will still complete an interview and assessment and assign a triage score, but then the pathway differs at this junction. The triage nurse will ring the birth suite and inform them of the woman's condition and her imminent transfer. If able, the midwife from the birth suite will come down and retrieve the woman and escort her to the birth suite or if a midwife is unavailable the triage nurse will arrange for the woman to be transported to the birth suite by other means. These pregnant women are not seen by the ED doctor, they tend to bypass the department after being seen by the triage nurse and go directly to the birth suite as per the hospital policy.

Summary and structure of this thesis

The following chapter provides a review of the literature pertaining to the topic area of triage and management of pregnant women in the ED. The literature review chapter has been structured using themes. The first theme gives a brief background on maternity services that are currently available in Australia in order to provide the reader with an understanding of why pregnant women may choose to attend the ED and, how decisions are made about priority of care. The second theme provides an overview of EDs, their workload, and how they generally operate to provide a context of what an ED setting is typically like in an Australian hospital. The third theme is an integration of the literature about the reasons why pregnant women present to the ED. The final theme pertains to care provided in the ED for other specialty areas, such as the care of children (pediatrics) and the care of people with mental health related problems. The chapter concludes with justifying the need for the research, restating the research questions and advising what archive system was used for safe storage of data.

Chapter three is devoted to introducing and discussing the theoretical perspective, research methodology, and the methods that were used in order to conduct the research. My own worldview reflects the emancipatory philosophy of the Frankfurt School

theorists, in particular Habermas. In addition, I value participatory approaches and believe that it is important to work *with* people in order to understand their situation and potentially assist with developing changes to improve the situation. The methodology that best fits with this viewpoint is PAR, which is discussed in detail in this chapter. In line with a PAR approach, I chose a critical lens in which to view the data, specifically Habermas' (1984) theories of communicative action (TCA) and knowledge-constitutive interests (KCI). Habermas' TCA was employed in this study to draw out the emancipatory function of deliberative democratic dialogue though the encouragement of ideal speech situations (ISS) in the PARG. The concepts of 'ISS', 'lifeworld', 'system', and 'colonisation of lifeworld' are all explored in this chapter. Habermas' theory of KCI states there are three different kinds of knowledge and that these are shaped by the particular human interest that they serve (Carr & Kemmis, 1986a). For the purpose of this study Kemmis' (2006) definition of the three types of KCI have been used and will be further elaborated in this chapter. The chapter concludes with an overview of the study design and methods used, and a brief discussion concerning rigour and ethical considerations for this study.

Chapter four provides the reader with a detailed description of the conduct of the research and could be followed as a framework if other researchers wanted to conduct a similar study to this one. This chapter is divided into five stages, commencing with the pre-research preparation stage and concluding with the disbandment of the PARG and ending of the study. In stage one, important considerations, such as gaining support of 'gatekeepers' and obtaining access to the research setting will be discussed, with a detailed account of what strategies I used to help facilitate this process. Stage two explores the methods used to help understand what the problems were, with specific details about the application of each of the methods. Stage three discusses the establishment of the PARG, followed by stage four, which focuses on the maintenance of the PARG throughout the study period. The final stage, ending of the PARG and thus the subsequent research study, is reflected upon, and will conclude the chapter.

Chapter five is the first of the results chapters. The information contained within this chapter is primarily the results from the preliminary data collection, which includes the focus groups, chart audit and review of relevant hospital policy documents. The results for the focus groups and the chart audit are explained in narrative style as well as being

summarised in tables for conciseness. In addition, an overview of each of the women's stories that were interviewed for this research is provided.

Chapters six, seven and eight are themed chapters about the three major findings of this study. All three chapters have been analysed from a critical perspective, specifically according to Habermas' TCA and theory of KCI. In addition, all three chapters are structured the same way for consistency and clarity. Each chapter's structure commences with theme-specific information and evidence to support the theme being discussed, and is then followed by the: problems identified by the PARG members; changes implemented by the PARG members; and, evaluation of the changes by the PARG members.

Chapter six concerns problems that were identified with respect to *communication*. Communication among clinicians from the different speciality areas was frequently aimed at goal achievement rather than understanding. This would often give rise to ineffective communication, dissatisfaction and potential conflict between clinicians. Examples of ineffective communication between clinicians are provided in this chapter and a number of these examples are analysed according to Habermas' TCA and theory of KCI. Communication between clinicians and pregnant women, especially concerning the use of language, not being listened to and withholding of information, was also identified as a problem and excerpts from the women's interviews are shared to illustrate these sub-themes.

Chapter seven is themed around the concept of *knowledge*. Lack of knowledge of the junior ED clinicians about the management of non-urgent, early pregnancy problems, was identified as a problem that led to the woman receiving inconsistent care. This affected decisions about what constitutes an appropriate referral from the ED to the birth suite or the maternity ward and ultimately resulted in inconsistent care. Conversely, midwives believed that they were out of their depth and would become frustrated when a pregnant woman was admitted to the birth suite or the maternity ward with a non-pregnancy related problem. In addition, the quality and the amount of information that was given to pregnant women were viewed by women as often insufficient to answer their questions or allow them to make an informed decision.

Chapter eight is the final themed chapter and is focused on the concept of *care*; specifically psychological care requirements of pregnant women who experience an early pregnancy loss. In this chapter a number of examples will be shared to illustrate where psychological care was lacking and/or not woman-centred. At the time of the research there were a number of policies and processes in place that directly influenced the care of pregnant women in the ED. These will be explored in this chapter with excerpts from the women's interviews and the PARG meetings being used to support conclusions made throughout the chapter. This chapter will also give examples of where clinicians wanted to provide better care, but due to a system with many restrictions were prevented from doing so. According to Habermas (1984), these are examples of colonisation of the lifeworld by system.

Chapter nine, *Discussion of Findings*, draws together the study's major findings and discusses them from a critical perspective. A summary of the changes implemented throughout the course of the study are highlighted with reference to which KCI the 'change to practice' best fits with. The majority of changes were technical in nature, however, the emancipatory changes were the most significant because of the change of attitudes and the heightened awareness that resulted among clinicians. In addition, this chapter will provide a synopsis of similar studies and the clinical relevance of this study's finding.

Chapter ten is the final chapter of this thesis and is the *conclusion and recommendations chapter*. This chapter will show how the research questions have been answered and how the aims and outcomes of the research have been achieved. This chapter also provides me with an opportunity to reflect on the research process and on what my strengths and weaknesses were as the study's facilitator. Excerpts from the PARG member's final interviews will also be shared, to bring to light their experience with being involved in this study. Furthermore, this chapter outlines the study's limitations, strengths and the recommendations made as a result of this research. Self-reflection is important to PAR and this will be evident throughout this chapter.

Conclusion

This chapter has provided an introduction of the research topic with background information on the research problem. Background information about me was also given to demonstrate my suitability for conducting a research project of this nature. The research questions, aims and outcomes have all been outlined, along with why this study was significant to undertake. Information about the research context was provided because this is important from a critical perspective, and provides a clear picture of the *Many Happy Returns* hospital ED and the maternity departments. This chapter concluded with a summary of the structure of the thesis; the following chapter will now provide a comprehensive review of the literature.

CHAPTER 2: LITERATURE REVIEW

"The time has come," the Walrus said,
"To talk of many things:
Of shoes and ships – and sealing wax
Of cabbages – and kings
And why the sea is boiling hot
And whether the pigs have wings"
(Lewis Carroll, Through the Looking Glass)

Introduction

According to Hart (1998) a literature review is a critical analysis of the relevant available literature, be it research or non-research literature, on the topic being studied. A literature review should be objective (contain no personal biases), gather information about the subject topic from a collection of many sources and bring the reader up to date with contemporary information about the topic area (Cronin, Ryan, & Coughlan, 2008). Daly, Elliott and Chang (2002) assert that being familiar with what is already known in the area will help develop a research project with newly identified questions. The subject topic for this literature review was the triage and management of pregnant women in emergency departments (EDs). A popular approach when structuring a literature review, and the one which I have used here, is to assign information to categories or themes, allowing for the integration of both theoretical and empirical literature (Carnwell & Daly, 2001). Furthermore, literature was reviewed as an ongoing process throughout the research, to continue to add to the critical mass (Patton, 2002).

As mentioned above, the literature review has been structured into themes. The first theme to be discussed will give a brief background of what maternity services are currently available in Australia. The second theme provides an overview of EDs and how they generally operate. These two themes have then been integrated and literature associated with both pregnant women and ED presentations will be presented. The final theme pertains to care provided in the ED for other specialty areas, such as the care of children (paediatrics) and the care of people with mental health related problems. The

chapter will conclude with justifying the need for the research, restating the research questions and advising what archive system was used for safe storage of data.

Searches and strategies

Very little information was found after an extensive deductive (McMurray, Pace, & Scott, 2004) literature review (CINAHL, MEDLINE, Google Scholar, PsycINFO) was conducted, demonstrating that there is a gap in the knowledge about the triage and management of pregnant women in EDs. Because of easy access to vast quantities of literature on the internet, it is common that most literature reviews are completed using computers and electronic databases rather than by manual means (Nagy, Mills, Waters, & Birks, 2010; Younger, 2004). CINAHL was used as it is one of the most important and useful electronic databases for nurses along with MEDLINE and PsycINFO, which are also listed as essential databases for locating literature on nursing and medical research (Polit, Beck, & Hungler, 2001). The search engine, Google Scholar was included due to the extensive array of literature that it accesses. Additional databases and search engines that were reviewed included: Google Web; Dogpile; ProQuest; Health Reference Centre; IngentaConnect; PubMed and Joanna Briggs Institute. Specific professional ejournals, such as Australasian Journal of Emergency Nursing, Accident and Emergency Nursing, Emergency Medicine Journal, Journal of Midwifery and Women's Health and Journal of Nurse-Midwifery were also searched. If an article was found that was appropriate to address the research topic the link to *'find similar articles'* was searched, along with reviewing the reference list of the article for further potential relevant literature. Ancestry approach (Polit & Beck, 2010) is a search strategy term used when searching for citations by using the reference list of a relevant article. A combination of these different search strategies were employed for this study.

One of the most common methods of identifying literature is by using keyword searches (Ely & Scott, 2007). When combining searches, using the Boolean operators or the icon option of *combine searches*, of key words such as 'pregnant women' and 'emergency department' there were many results, but the majority of articles concerned domestic violence issues or psychosocial issues during pregnancy. Table 2.1 illustrates these results with the selected key terms shown for four of the major databases that were

searched. The searches were all limited to the English language and only one search was restricted by publication year.

Table 2.1 Summary of selected database searches

Key Terms	Limits to Search	CINAHL	Google Scholar	MEDLINE	PsycINFO
1. Pregnant Women	Limit 1	3,227	474,000	28,375	6,048
2. Emergency Department	Limit 1	6,815	508,000	17,989	4,191
3. Pregnant Women and Emergency Department	Limit 1	12	34,700	47	141
4. Pregnant Women and Emergency Department	Limit 1 & 2	6	13,000	23	111
5. Triaging of Pregnant Women	Limit 1	0	270	0	0
6. Emergency Room Management of Pregnant Women	Limit 1	0	24,900	0	0
7. Emergency Rooms	Limit 1	244	52,800	686	560
8. Pregnant Women and Emergency Rooms	Limit 1	0	18,600	3	9
9. Emergency Nursing	Limit 1	7,499	154,000	3,664	435
10. Pregnant Women and Emergency Nursing	Limit 1	6	18,500	1	16

Key- Limit 1: LA= English; Limit 2: PY= > 2002

In Australia and New Zealand, 'the department' is usually referred to as the emergency department (ED). In the United Kingdom, Hong Kong, Singapore and Ireland it is usually called the accident and emergency department (A&E), and in the United States it is usually referred to as either ED or emergency room (ER). Leading journals, such as the Annals of Emergency Medicine, and the Emergency Medicine Journal consistently use the term ED. Therefore, both of the terms (ED and ER) were included as key words when searching the databases. Furthermore, the keyword A&E was also substituted as part of the database search, but did not yield any new literature of significance.

The search using the combined key words of 'Pregnant women' and 'Emergency Department' was repeated across all databases limiting the search to articles after the

publication year 2002. When applying the publication year limit to >2002 for both 'CINAHL' and 'MEDLINE' the results indicated that half of the 'hits' were within the last five years and 'PsycINFO' recorded approximately 79% within the last five years. However, Google Scholar yielded a different result with approximately 37% of the 'hits' occurring after 2002 and the majority occurring prior to 2002. Upon reviewing the results after 2002, it was confirmed that the majority of the articles still related to pregnant and non-pregnant women who presented to the ED with domestic violence issues or psychosocial issues, such as suicide and depression.

When viewing emergency medical and nursing textbooks (Cameron, et al., 2004; Cameron, Jelinek, Kelly, Murray, & Heyworth, 2000; Newberry, 2003), most contained information on the emergency management of a woman in labour or pregnancy related emergencies, such as bleeding or hypertension. They also provided information about the emergency management of pregnant women following motor vehicle accidents or domestic violence. There was little information available relating specifically to non-urgent management of pregnant women in ED for both pregnancy and non pregnancy related presentations.

In view of the dearth of relevant information, the literature review was extended to include other speciality areas, such as paediatrics and mental health, to determine how these clinical presentations are triaged and managed in the ED. It is important, however, before considering the literature on other speciality areas to start with an overview of the literature on maternity services within the Australian context. This is followed by literature explaining the roles and functions of EDs; the purpose of which is to develop a greater understanding of the problem within the context of the ED environment.

Maternity services in Australia

The purpose of including a brief synopsis on maternity services in Australia is to provide the reader with background information on what services are currently available to pregnant women. This is indirectly related to the research topic, but has been included because it is important to understand why pregnant women may choose to attend an ED for pregnancy related concerns.

Pregnancy is essentially a normal physiological life event, experienced by women, usually ending with the birth of a baby (Lane, 2010). Viewing pregnancy as a normal, healthy life event is a difficult concept for some nurses, doctors and even midwives. In fact, some health care professionals and members of the general public view pregnancy as an 'illness condition' requiring intervention to proceed smoothly, which is why in Australia most births occur in hospitals under the care of an obstetrician (Australian Government- Department of Health and Ageing, 2009). This is often referred to in the midwifery literature as the medicalisation of childbirth (Lane, 2010). The current medicalised system creates dissatisfaction among a significant number of midwives working in Australia because it does not allow them to work within their full scope of practice (Barclay, Brodie, Tracy, & Leap, 2002). Best practice literature for normal pregnancies supports women's choice and continuity of care models, preferably with a midwife as the lead maternity provider (Chalmers, Enkin, & Kierse, 1996; Guilliland & Pairman, 1995, 2010). 'Midwifery continuity of care' is usually defined as care that begins in early pregnancy, continues through pregnancy, labour and birth, and the postnatal period, and is provided by the same midwife or by a small group of midwives (Homer, Brodie, & Leap, 2008). Therefore, with this type of model if a woman developed a pregnancy related problem she would contact her midwife in the first instance to seek advice, rather than presenting to an ED or her general practitioner. These types of continuity of care models are scarce in Australia, especially in rural and remote Australia.

Models of midwifery care

Over the last two to three decades there have been a number of midwives and consumers of maternity care, championing the cause of continuity led care for pregnant women. Homer et al. (2008) discuss a number of factors influencing midwifery continuity of care models, including: systems of funding for midwifery; government and health service policy; the support of obstetricians, general practitioners, managers and midwives working in hospital settings; the setting in which care is provided; and, the level of autonomy and work preferences of the midwives involved. A brief overview of the main models of care available at the research site can be found in table 2.2.

Table 2.2 Models of maternity care available at the research site

Model of Care	Description
Shared Care	Care is shared between the woman's General Practitioner (GP) and the hospital. Antenatal care is usually attended to by the GP until 35 weeks gestation and then the woman attends weekly antenatal appointments at the hospital until the birth. The woman labours and births at the hospital with midwives and or doctors who are rostered on at the time. Postnatal, the woman is visited by a midwife at home for up to seven days and then further support is available from the woman's GP or the Child Health Clinic.
Collaborative /Combined	Care is provided by in a public hospital system by doctors who specialise in obstetrics and registered midwives. The woman attends the antenatal outpatient's clinic and will be seen by a midwife or doctor, usually depending on staff rostering for the day. Women who are considered 'high-risk' pregnancies will normally be seen by a doctor. The woman labours and births at the hospital with midwives and or doctors who are rostered on at the time. Postnatally, the woman is visited by a midwife at home for up to seven days and then further support is available from the woman's GP or the Child Health Clinic.
Team Midwifery	This is a small team of midwives that work between the antenatal clinic, birth suite and home visiting services. There is debate about what constitutes a small number, with teams varying from five to 16 midwives. In Australia, most team are between six to ten (Homer et al., 2008). Teams can be designed for 'low-risk' pregnancies or 'high-risk' pregnancies. The original concept with team midwifery was to increase continuity of care for the woman, but with the size of some of the teams, this is often not achieved.
Case Load Midwifery	The woman receives one to one care by a known midwife throughout the antenatal period, during labour and birth and in the postnatal period, for up to six weeks. Midwives that work in this model will have a 'partner' in the practice (a reciprocal arrangement between the two) and they will stand in for each other if needed. The two midwives are often present for the birth. Midwives that work in this model are 'on-call' and carry either pagers or mobile phones. A common setting where this model of care is used is in Birth Centre environments and group midwifery practices. For this model to work well it is important for collaborative relationships to exist between midwives and obstetricians, for the benefit of the woman.
Private Care	The woman receives care from a private obstetrician of her choice during the antenatal period, labour and birth and in the postnatal period. Depending on the availability of the obstetrician at the time of the birth, midwives will provide care for the woman in a private (or public) hospital setting. The woman will visit the obstetrician's office to receive postnatal follow up care or be referred to the woman's GP or the Child Health Clinic.

Individual hospitals and or communities, especially rural and remote communities, may also have models of maternity care unique to their context. Sadly, over the last few years many maternity services have closed in rural and remote areas of Australia and innovative strategies have had to be devised to promote safety of emergency maternity care in these locations (Kildea, Kruske, & Bowell, 2006).

Consumer advocacy groups and changes to practice

Homer et al. (2008) discusses the importance of collaboration in maternity care as essential if improvements in care are to be made. In Australia, consumer advocacy groups, such as the Maternity Coalition, have been working collaboratively with providers of maternity services to improve the system for pregnant women. Their main objective is to promote choice for pregnant women and their families. They do this by lobbying both state and federal governments for better maternity reforms (Maternity Coalition, 2012). Their efforts have resulted in some noteworthy changes in maternity services, including the establishment and subsequent amendment and passing of: *The Health Legislation Amendment Act 2009* (Midwives and Nurse Practitioners), therefore giving 'eligible' midwives access to Pharmaceutical Benefits Scheme (PBS) and Medicare; the *Midwife Professional Indemnity Act 2010* (Commonwealth Contribution); and, the *Midwife Professional Indemnity Act 2012* (Run-off Cover Support Payment) (Commonwealth of Australia, 2011). These legislative changes have the potential to provide more options for birthing women and increase autonomy and job satisfaction for midwives.

Alternatives to attending the ED

As established above, a large portion of maternity care is delivered in tertiary settings and by specialist obstetricians. In 2006, 97.3% of women gave birth in a hospital setting, with public hospitals delivering 55% of antenatal care, private obstetricians delivering 30% of antenatal care and GPs delivering 15% of antenatal care (Australian Government- Department of Health and Ageing, 2009). Therefore, one could predict that a significant number of women who experience pregnancy related concerns would attend an ED for help, especially if they were already being cared for in the public system, or their primary caregiver (obstetrician or GP) was unavailable. In searching the

literature, a number of alternatives to attending the ED were identified and will briefly be reviewed now.

Early pregnancy assessment units

Early pregnancy assessment units (EPAUs), also known as early pregnancy assessment services (EPASs), deal specifically with problems in early pregnancy, of which the most common are early pregnancy bleeding and/or pain. These units are well established in the United Kingdom (UK), the first, as reported in the literature, was established in 1991 (Acharya & Morgan, 2001; Draycott & Read, 1996), and have been successful in demonstrating improvement in the quality of care and reduced length of hospital stay for women with early pregnancy problems (Bigrigg & Read, 1991; Shillito & Walker, 1997). In the UK, these units are often situated in the gynaecology ward and staffed by a gynaecology nurse, doctor and sonographer. Referrals can be made by the woman, a GP or the ED. In Australia, an early pregnancy problem service (EPPS) clinic was established in June 1996 at the St George Hospital ED in Sydney, to determine if this would improve service delivery and help reduce length of stay in ED for women with early pregnancy problems (EPP). The research concluded that the EPPS significantly reduced the time that women spent in the ED and reduced the likelihood of women representing to the ED; resulting in "more streamlined management of women with EPP while in the ED" (Brownlea, et al., 2005, p. 111). A clinical guideline released by the Women's Hospitals Australasia (2008) recognised the importance and value of EPASs within hospitals and acknowledged that in smaller communities or rural and remote areas this service would generally be provided by GPs. There are currently a number of EPASs or EPAUs in Australia (Crilly, Wendt, & Beatson, 2012; King Edward Memorial Hospital, 2011; Mater Mothers' Hospital, 2011; Royal Prince Alfred Hospital, 2004; The Royal Women's Hospital, 2011), usually situated in large metropolitan EDs although some are co-located in the birth suite or maternity/gynaecology areas. Most appear to have been established in the last five to eight years and they generally operate Monday to Fridays between 8.30am-12.30pm. Women who require assistance outside of these hours would therefore still present to the ED.

Obstetric triage units

In America, obstetric triage units emerged in the mid 1980s to help decrease the number of women presenting to, and occupying beds in, the labour and delivery room (birth

suite) for non-obstetric complaints. These units also helped to reduce the strain on finances, personnel and other valuable hospital resources (Angelini, 2000, 2003). Many of these emergency triage units employed midwives to triage, assess and manage the care of women who presented to the obstetric triage unit, because they were skilled and well educated in providing maternity care (Angelini, 2000, 2003; Angelini & Mahlmeister, 2005).

In one study (American College of Nurse-Midwives, 1999) there were a number of purposes listed for designing obstetric triage units. These included: to utilise beds more efficiently; to expedite obstetric assessments; to prevent unneeded admissions to labour and delivery; to save time, money and improve patient flow; to decrease patient waiting time; to be used as an admission “gatekeeper”; and to determine assessment and management needs of obstetric patients. No literature has been discovered which refers to obstetric triage units existing in any other country but America.

The ED setting

Emergency care as a clinical speciality has only evolved during the late 20th century (Newberry, 2003). The appropriate staff ratio profile for an ED is unclear and is largely driven by local demand and presentation types (Fry, 2011; Williams, Souter, & Smith, 2010). Throughout Australia there are an estimated 1,340 hospitals, both public and private; of this total number, there are 166 acute public hospitals in Queensland. Furthermore, public hospitals provide approximately 94% of all ED services (Australian Institute of Health and Welfare, 2012).

Queensland Health (QH) provides quality free emergency services across the state to people who require treatment for serious illness or injury (QH, 2007). The public hospital EDs operate differently to General Practitioners’ offices or hospital clinics, in so far as no appointment is needed and treatment is provided free of charge at QH hospitals (QH, 2007). This makes the ED an attractive option for many people requiring medical care and an unpredictable one for those working in it. All people are seen by a nurse upon arrival at the ED. The nurse (referred to as the triage nurse) undertakes a rapid primary assessment to determine the urgency of each person’s health condition.

From there, each person is assigned a triage category score, which equates to their level of urgency for medical treatment. This is influenced by the triage nurse's level of overall ED experience, level of specialist knowledge (i.e. obstetric/midwifery), the busyness of the department and the types of presentations in the department, and the staffing and skill mix. The person then waits to be seen by an ED doctor to determine treatment/management options.

Triage

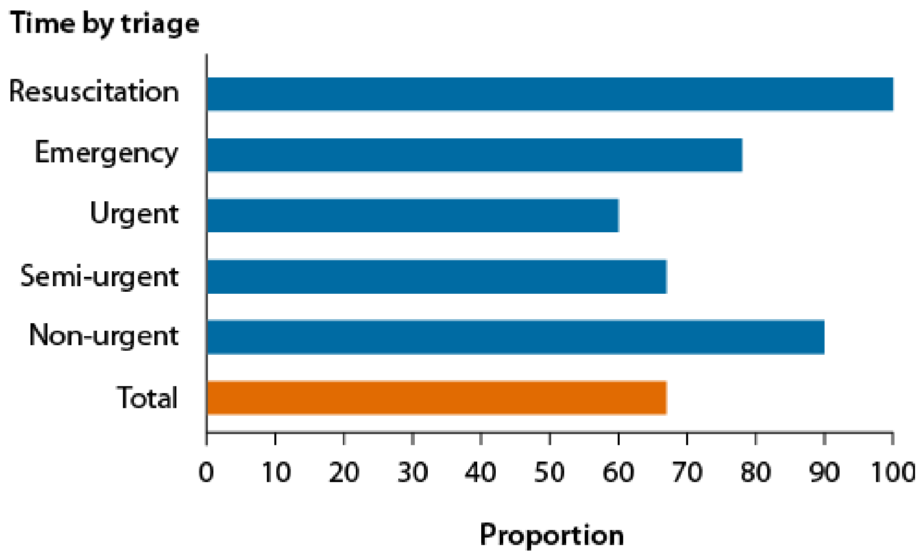
Triage is a common term, derived from the French word 'trier' meaning 'to sort' (Biedermann & Harvey, 2001; Wuerz, Fernandes, & Alarcon, 1998). Triage was introduced in Australian hospital EDs in the 1970s to ensure urgent treatment was given to those most in need (Andersson, Omberg, & Svedlund, 2006; QH, 2007). In 1988, Dr Gerry FitzGerald introduced what he called the Ipswich Triage Scale at the Ipswich hospital. The validation of his triage scale (FitzGerald, 1990) led to its adoption as the National Triage Scale and subsequently the Australasian Triage Scale (ATS), which has been in use nationally since 1994 (FitzGerald, Jelinek, Scott, & Gerdtz, 2010; Gerdtz, et al., 2009; Jelinek, 2008). During triage, the person seeking help is given a rating from one to five, with one assigned to those in need of the most urgent medical care and five to those who are able to wait longer to receive medical care. As per the QH (2007) protocols, the five triage ratings are:

- Triage Rating 1(Resuscitation): Individuals who need to have treatment immediately or within two minutes are called immediately life threatening patients. i.e. cardiac arrest.
- Triage Rating 2 (Emergency): Individuals who need to have treatment within 10 minutes are called imminently life threatening patients. i.e. severe pain, chest pain.
- Triage Rating 3 (Urgent): Individuals who need to have treatment within 30 minutes are called potentially life threatening patients. i.e. severe illness; dehydrated.
- Triage Rating 4 (Semi-Urgent): individuals who need to have treatment within one hour are called potentially serious patients. i.e. migraines.

- Triage Rating 5 (Non-Urgent): Individuals who need to have treatment within two hours are called less urgent patients. i.e. minor complaints that may have been present for more than a week.

Throughout Australia, 70% of patients were seen within the recommended time for their triage category, and in Queensland this figure is 67% (Australian Institute of Health and Welfare, 2012) (see Figure 2.1). Failure to treat and manage patients in a timely manner "often results in intense media scrutiny" (Duffield, Conlon, Kelly, Catling-Paull, & Stasa, 2010, p. 181).

Figure 2.1 Percentage of people seen within recommended time by triage category for ED attendances in Queensland, 2010-11



Source: Australian Institute of Health and Welfare (2012, p. 12).

In a study conducted by Gerdtz et al. (2009) to "investigate how the characteristics of the nurse, the type of patient presentation and the level of hospital service influence the reliability of the ATS" (p. 278), it was identified that significant problems with consistency of triage was evident for 'pregnancy presentations'. Forty-four triage nurses (national sample) completed a survey which included 234 triage scenarios; "particular scenarios involving mental health and pregnancy related presentations were observed to have significantly lower levels of concordance" (p. 281). In other words, Gerdtz et al. found wider variation between the allocated triage score in pregnancy and mental health triage scenarios. This was similar to a UK study (Lewis, 2007), which recommended

that all ED staff receive education on recognising a sick pregnant woman. This highlights the need for further indicators, apart from the ATS, to help improve the triage of pregnant women in EDs.

Why do people get admitted to hospital?

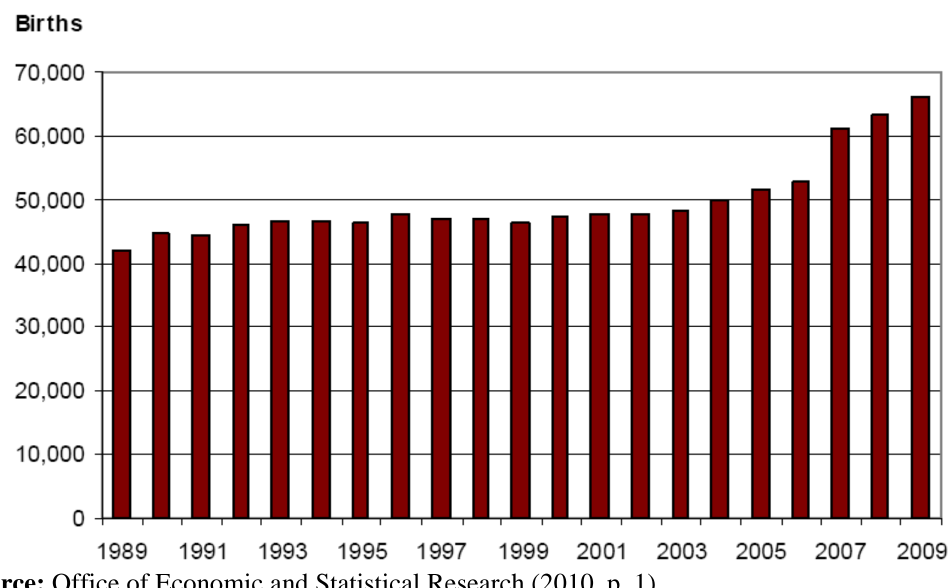
People are admitted to public hospitals (apart from psychiatric hospitals) for five main reasons (Department of Health and Ageing, 2010). These reasons include: acute medical admissions (i.e. kidney failure, heart attack, cancer); individuals requiring surgery (i.e. appendectomy, hip or knee replacements); women requiring maternity services (i.e. pregnancy and childbirth services); individuals requiring medical procedures (i.e. colonoscopy, haemodialysis) and; non-acute persons requiring rehabilitation services (i.e. physiotherapy, geriatric evaluation or palliative care). The category ‘women requiring maternity services’ covers any condition that is related to pregnancy and accounts for approximately 6% of public hospital admissions (Department of Health and Ageing, 2010). It is therefore possible to conclude, as most hospital admissions transpire via the ED, that pregnant women presenting to an ED, in Australia, is a relatively frequent occurrence. Furthermore, Queensland is the fastest growing state in Australia (Queensland Government, 2008) with birthrates increasing each year. The birthrates between 2006-2009 respectively were: 52,665; 61,249; 63,132; and 66,097 (Australian Bureau of Statistics, 2008, 2010; Office of Economic and Statistical Research, 2010). (see Figure 2.2). This would also account for an increasing number of women in Queensland requiring hospital admission for maternity services.

How many people attend the ED?

According to a report released by the Department of Health and Ageing (2004, 2010), EDs have become busier over the last five to ten years. The 2010 report cited that in 1998-99, there were 5.0 million presentations to Australian public hospital EDs for treatment, in 2003-04 there were 5.9 million presentations to Australian public hospital EDs, and in 2008-09 there were 7.2 million presentations to Australian public hospital EDs (see Figure 2.3). The latest available figures show that this has increased further to 7.7 million presentations in 2010-11(Australian Institute of Health and Welfare, 2012) (see Figure 2.4). Between the period 1998-99 and 2008-09 there were significant

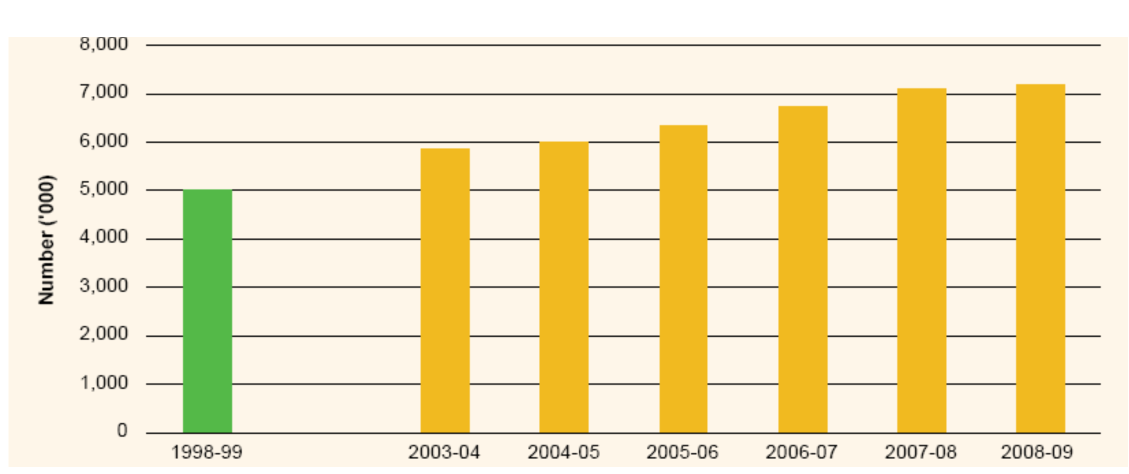
changes in the percentage of ED attendances by triage category (see Figure 2.5). This means, according to the report, there has been an increase in emergency (triage category 2) and urgent cases (triage category 3) and a decrease in semi-urgent (triage category 4) and non-urgent (triage category 5) cases in ED. The increase in presentations to the ED and severity of the presentations directly affects the stress and workload experienced by ED staff and affects the waiting times for less urgent cases, such as pregnant women who present with minor ailments of pregnancy or early pregnancy bleeding. Predominantly these scenarios would be either a triage category 4 or 5.

Figure 2.2 Registered births in Queensland 1989-2009



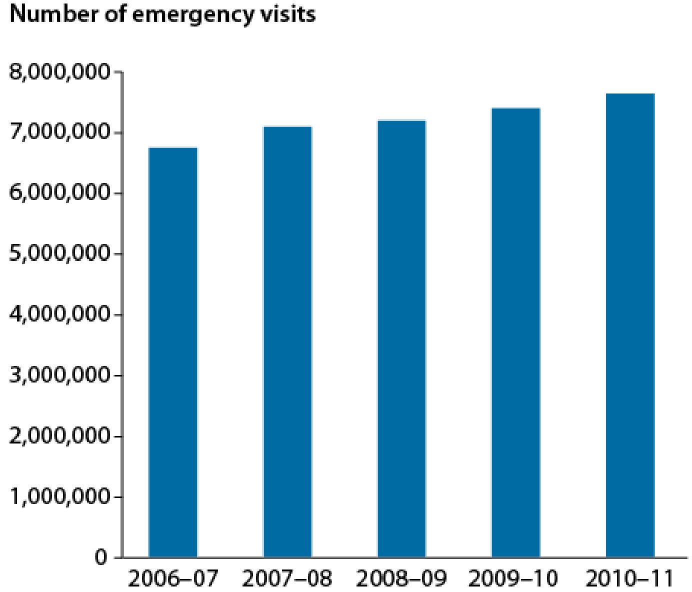
Source: Office of Economic and Statistical Research (2010, p. 1)

Figure 2.3 ED attendances in Australia, public hospitals, from 1998-99, and 2003-04 to 2008-09



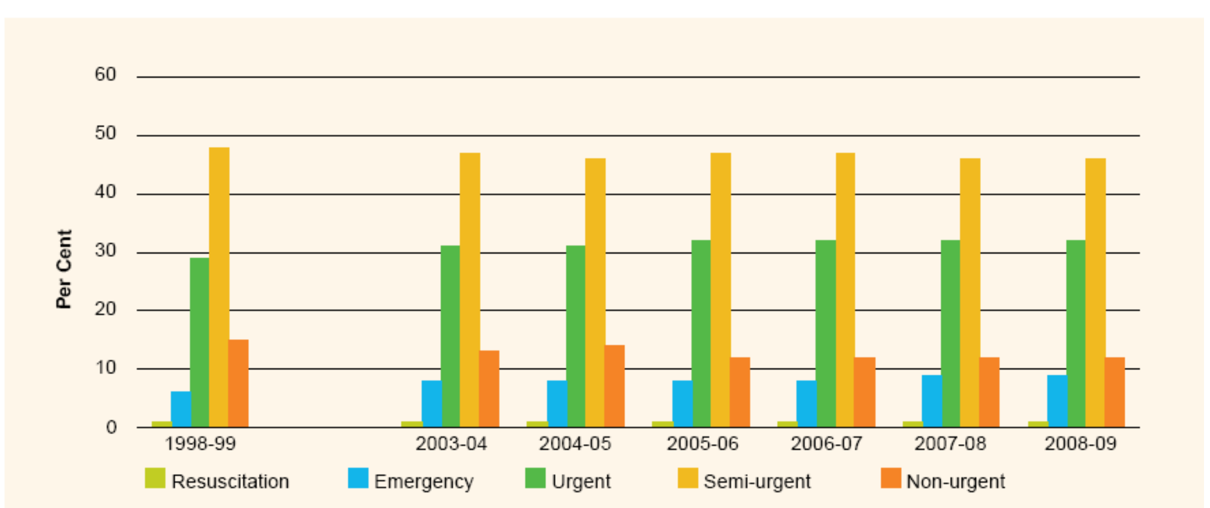
Source: Department of Health and Ageing (2010, p. 23).

Figure 2.4 Public hospital ED attendances in Australia, 2006-07 to 2010-11



Source: Australian Institute of Health and Welfare (2012, p. 11).

Figure 2.5 ED presentations, public hospitals, by triage category, 1998-99 and 2003-04 to 2008-09



Source: Department of Health and Ageing (2010, p. 25).

Why do people attend the ED?

Around the world (Australia, New Zealand, United Kingdom, Canada, United States of America, Switzerland) hospitals are experiencing increasing pressure from rising

numbers of people presenting to the ED; this, coupled with less inpatient bed capacity in hospitals, leads to prolonged stays in ED (Department of Health, 2009; Department of Health and Ageing, 2009; Drummond, 2002; Duffield, et al., 2010; Lowthian, et al., 2011; Pitts, Niska, & Xu, 2008; Santos-Eggimann, 2002; Working Group for Achieving Quality in Emergency Departments, 2008). This further increases waiting times, disrupts timely access to emergency care and diminishes patient care and safety (Lowthian, et al., 2011).

Due to the unavailability of afterhours health services, such as access to General Practitioners (GP), people with minor injuries or illnesses are forced to resort to attending the ED (Callen, Blundell, & Prgomet, 2008; Siminski, Bezzina, Lago, & Eagar, 2008). A United States Management and Technology Consulting Firm, Booz Allen Hamilton (2007, p. 66), conducted a national Australian research study to determine the reasons for attending an ED rather than a GP. There were 349 respondents and the results revealed the following information:

- 59% said “it was outside the GPs opening hours”;
- 34% said “needed hospital/emergency treatment”;
- 17% said “the ED had a better range of services than the GP”;
- 14% said “could not get an appointment with a GP soon enough”;
- 9% said “it was faster to get to the ED than to the GP”;
- 5% said “the ED had a better quality of services than the GP”;
- 4% said “the doctors’ fees and other specialist fees would have been too much”;
- 3% said “the specialist the patient needed was only at the hospital”;
- 3% said “the ED has a better quality of care than a GP”;
- 2% said “difficulty finding a GP in the area due to GPs not taking any new patients”; and
- 3% were listed as ‘other’.

Many of the reasons mentioned above were confirmed by a study conducted by Land and Meredith (2012), which evaluated the reasons why patients attend a hospital ED in the UK. All of these reasons impact on the stress placed on ED staff and contribute to a reduction in resources available to individuals that present to the ED. A study in Holland (van Uden, Winkens, Wesseling, Crebolder, & van Schayck, 2003) demonstrated a decrease in ED attendance when there was a GP ‘gatekeeper’ referral

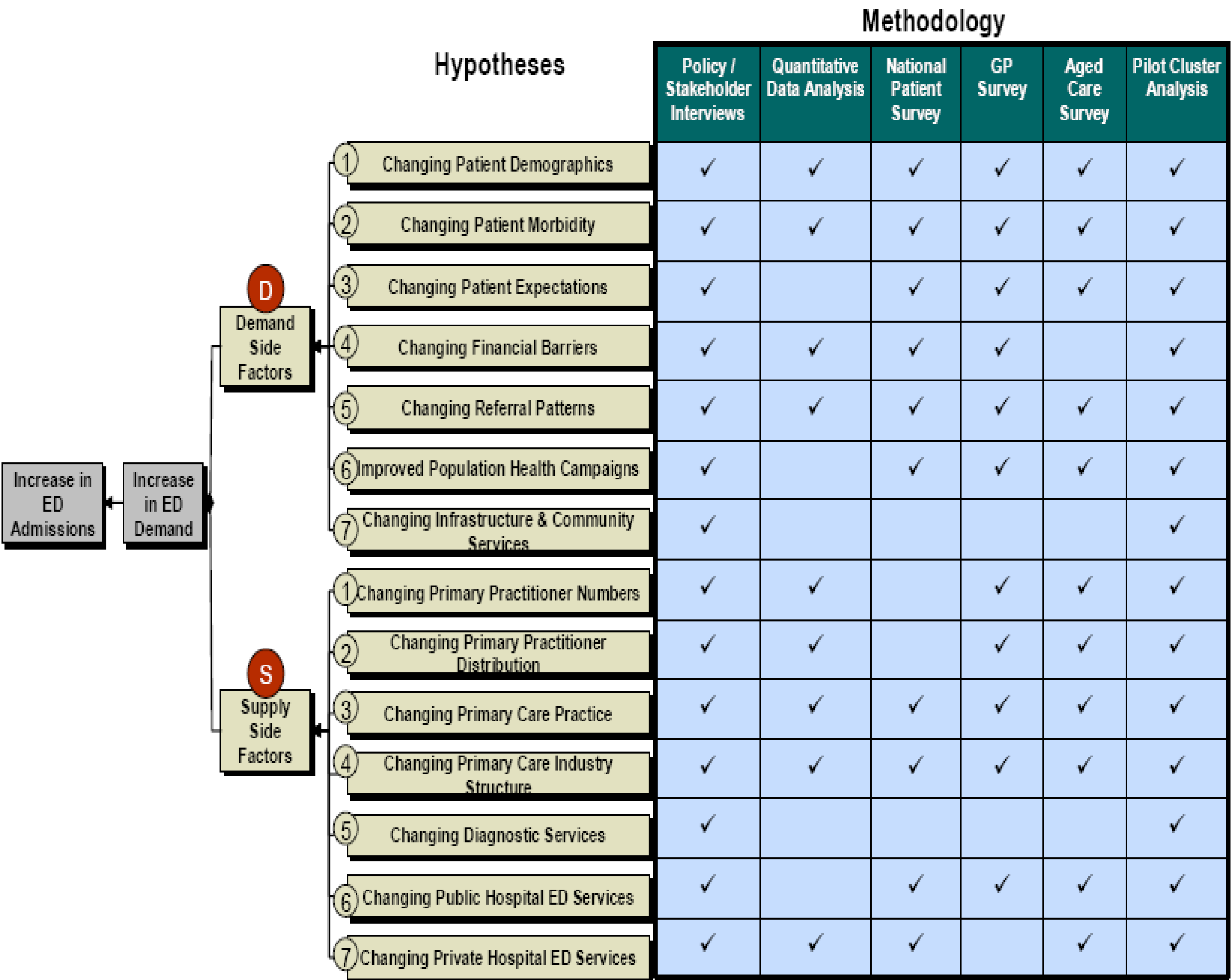
required before being seen in the ED. An out of hours GP clinic was situated next to the ED and all patients presented there in the first instance. However, there is another body of literature that does not attribute the overcrowding of ED to ‘GP type presentations’; instead they believe it is caused by people waiting in the ED for an inpatient bed, referred to as ‘access block’ (Cameron, Joseph, & McCarthy, 2009; Fatovich, Hughes, & McCarthy, 2009; Liggins, 1993; Mitra, Cameron, & De Villiers Smit, 2010; Richardson, 2002; Richardson & Mountain, 2009). These authors believe that to address the problem of ED overcrowding, the access block needs to be resolved; an increase in the number of available GPs will not alter people having to wait for an inpatient bed.

The following comments, made by a local doctor where the hospital research site is located, will be shared to further illustrate the effects of access block on EDs. These comments were made at an anti-development rally held in 2008 for the city. The doctor, who had worked in the city for more than 30 years, told the meeting that when he arrived in the city there were approximately 600 hospital beds (old hospital) to a population of approximately 50,000 people. At the time of the rally the population was approximately 160,000 people, over three times the original population. The doctor’s comment was that you would expect there to also be an equivalent increase in hospital beds to support the growing population of the city. However, when a new hospital was built for the city in 2001 there was a decrease in the number of hospital beds to 450. It is difficult to understand the justification behind this decision. Health care professionals and the public advocated to politicians and hospital administrators for more hospital beds, and yet this plea appeared to fall on deaf ears. Additional to this and as highlighted in the introduction, the hospital is the main referral hospital for all of north Queensland, catering for a population of far greater than the 189,931 people that currently reside in the city. It is therefore no wonder that reports of patients having to wait on stretcher beds in the ED or worse in the corridors of the department for days for an in-patient bed become headline news (Macdonald, 2009; Raggatt, 2008). The domino effect of access block is ED overcrowding, increased ED waiting times, poor quality care for people attending the ED and hospital, and a feeling of dissatisfaction among ED staff who are trying to do their best in a system that appears not to listen to them or heed their advice. These events described above and a number of other events described in chapter one helped to speed-up the decision to commence re-development of the hospital, which then commenced in 2010.

Booz Allen Hamilton (2007), were tasked by the New South Wales (NSW) Department of Health to undertake research to determine the key demands on EDs in Australia. They formulated hypothetical sets of demand and supply issues and then used policy/stakeholder interviews; national patient survey; GP survey; aged care survey; quantitative data analysis; and, pilot cluster analysis to refine their hypotheses. Figure 2.6 is an illustration of the hypotheses with the accompanying methodologies used. A summary of the results of the study confirmed that there are four significant drivers of demand in EDs. These were (Booz Allen Hamilton, 2007, pp. 80-81):

- Changing patient expectations: There is a strong trend towards patients bypassing their GP in the decision to attend an ED, with up to 86% of patients self-referring to the ED. Patients are willing to travel a significant distance in order to obtain all the required services in the one place. There are two different age cohorts impacting demand in different ways. The under 25 years age cohort is using the ED as a primary care substitute, seeking convenience and wanting to access services all in one place. The 65 years and over cohort is more likely to be using the ED for true emergency services and their growth is driven by the ageing population and more chronic problems.
- Changing referral patterns: The strongest referral trend is that more patients are self referring, and that ambulance usage is increasing rapidly. While ambulance transportations tend to be for non-primary care patients they nonetheless contribute a high volume of attendances. Aged care facilities self report that their use of EDs is on the rise and while aged care referrals are currently low, they are likely to grow as the population ages and residential aged care facilities face additional difficulties and begin to refer more patients.
- Changing population health campaigns: Patients are being informed about a variety of health conditions via advertising [for example heart week] and this is impacting their choice to attend the ED.
- Changing patient demographics: A small proportion of the growth in ED demand can be explained by growth in the population. The ageing population is also reflected in the increased age of patients in the ED. However, younger patients (under 25 years) are growing much faster than older patients (over 65 years) and these groups have fundamentally different needs in the ED.

Figure 2.6 Booz Allen Hamilton Research: Methodologies applied to hypotheses set



Source: Booz Allen Hamilton (2007, p. 55)

Not all demand hypotheses mentioned in figure 2.6 were found to be fully supported by data. For example hospital records did not support an increase in complex health conditions as a reason for people attending the ED. Additionally, the National Patient Survey recorded that 91% of people stated only one condition for their attendance to ED, indicating a potentially non-complex problem. There were also seven supply factors hypothesised in figure 2.6 that potentially would increase ED presentations. However, following the research the main four supply drivers were found to be (Booz Allen Hamilton, 2007, pp. 101-102):

- Primary care practitioner numbers: While the number of GPs relative to the population is growing, they are increasingly difficult to access as they have been reducing their average workload overall and providing longer consultations,

meaning fewer patients can be seen per GP. General Practitioners are also ageing and older GPs tend to work fewer hours. In addition, in some of the larger metropolitan areas the GP workforce is becoming increasingly feminised, with female GPs working on average 13.6 hours fewer than their male counterparts, limiting access to GPs in those areas.

- Primary care practice: Driven by a reduction in effective working hours of GPs, primary care patients are reporting that GP accessibility is by far the strongest factor in the decision to attend the ED rather than GP. General Practitioners are continuously providing less afterhours services, leaving patients with little choice other than attending an ED. General Practitioners, due to de-skilling and the increased threat of litigation, are now providing fewer services within their practice, electing to refer patients for specialist and testing services. Patients are then confronted with the choice of being referred to multiple medical services by their GP or attending the ED where all the services are available in one place.
- Primary practitioner distribution: Analysis of demand by rural versus metropolitan Area Health Services (AHS) provides compelling evidence that GP supply is a major determinant of demand transfer from primary care into EDs. Rural divisions of GPs have a significantly worse GP to population ratio compared to the metropolitan divisions, and the Rural AHS also has the highest presentation of primary care patients within its EDs.
- Changing public/private hospital services: While public hospital EDs are increasing their bed capacity annually at 4%, the number of private hospitals providing ED services over the past two years has fallen by half. The volume that was previously in the private system has now been diverted into public EDs.

The town in which this research project was undertaken did have a private ED, but it closed after approximately three years of operation because the hospital administrators deemed it was not financially sustainable. The closure impacted on the workload of the *Many Happy Returns* hospital ED, as it once again became the only ED available to the community.

Booz Allen Hamilton’s (2007) research demonstrates that people are generally more proactive in seeking out health care that meets with their own expectations, which often includes being able to have all their investigations and examinations done in the one place. The ED is also readily accessible, compared with the restricted opening hours of

many GP surgeries and limited after-hours services available. The demand on EDs will increase further with the predicted increase in aged care facilities referring residents to the ED. Furthermore, the closing of many rural and remote health services creates the need for additional referrals and transfers from these locations to regional or metropolitan EDs. These multi-factorial reasons cause an increase in demand for ED services and subsequently increase the number of ED presentations. The results of this study concur with Callen et al. (2008) and Siminski et al. (2008) in reference to reduced access to GP services and the statistical figures from the Australian Institute of Health and Welfare (2012) confirm the increase in ED presentation numbers over the last decade.

Context of the ED

SBS television show: Excerpts from ED clinicians

To shed light on the context of EDs in Australia some excerpts from a transcript from the SBS television show, 'Insight' will be shared (SBS Insight, 01 Sep 2009). This episode was aired 1st September 2009 to discuss 'emergency departments and what happens when the system breaks down'. Jenny Brockie (host) asked one of the ED doctors what they said to the Prime Minister when he 'dropped into their hospital' recently.

> *We work in a system that is often not properly resourced, so we don't have the beds we need, we don't have the staff we need, we don't even have the physical equipment we need and that means that often we are made to feel like meat in the sandwich. It's a very awful thing to take someone who really, really cares about something, and wants to do it well and compromise their ability to do it.*

Jenny Brockie asked Dr Sally McCarthy from the Australasian College of Emergency Medicine, what her opinion was of the 'blockages' in ED.

> *It is about available beds, the problem for us in emergency, is that whilst we can treat patients and get them stable, we need to move them on into the hospital. Almost 40% of our workload now is looking after patients who have finished their emergency phase of care and who should be in a bed within the hospital. It's like I mean, talking about frustration amongst staff, it's like sending staff to work with their hands tied behind their back because we really don't have beds*

to treat our new emergency patient on, when all our beds are full of patients who should be elsewhere in the hospital.

Next, Jenny Brockie asked Dr Roger Harris, who previously had run one of Sydney's busiest ED, but now is an intensive care doctor, what his thoughts were on the ED situation.

I trained as a specialist in emergency medicine like many of my colleagues here and invested 10 years of my life training in that speciality, only to be in many ways, crushed by it.

Jenny asked, 'what do you mean crushed by it?'

Well, many of the words that I've heard used here, like hands tied behind your back is a very familiar feeling – being trained to do a job and to look after patients but trying to do it in a system that didn't work...we don't put the resources at the front door and get it right at the start...I don't think any other business, no other organisation would operate the way health operates.

A final excerpt is from Dr Peter Nugus, sociologist. Jenny Brockie asked: "Peter... you have spent nearly a year looking at the inner workings of emergency departments. What is the relationship like between doctors in emergency and other parts of the hospital"?

Well, at an individual level, the relationships between doctors from the emergency department and inpatient departments are pretty cordial and professional generally speaking but there is a power imbalance between doctors in the emergency department and doctors in inpatient departments, a source of some of the problems that have been talked about tonight is actually the way the hospital is organised. It's organised according to particular organs of the human body. The good thing...and there's specialised knowledge that comes along with that...An inpatient specialist will always have more power knowing more about their particular organ and when they are under pressure because we are not talking about individuals being good or bad, when they are under pressure, it's easy for them to say, I am sorry, that's not my problem, the Renal problem is more pressing than that heart problem, so emergency clinicians find it's harder to sell these patients.

These excerpts have been shared as they strengthen the need for a critical perspective for this study, especially when analysing and interpreting the data. The power imbalances and injustices that exist within the health system need to be made explicit so that emancipation of staff becomes possible. This helps put in context the environment in which emergency nurses and doctors work and the often stressful and complex interactions they manage on a daily basis.

Violence in the ED

Further to demand and supply issues that EDs face, there is a growing trend of aggression and violence towards ED staff, both nationally and internationally, from people presenting to the ED (Ferns, 2005; Gates, et al., 2011; Hodge & Marshall, 2007; Lau, Magarey, & McCutcheon, 2005; Lau, Magarey, & Wiechula, 2011a, 2011b; Luck, Jackson, & Usher, 2009; Wells & Bowers, 2002; Wilkes, Mohan, Luck, & Jackson, 2010). Jones and Lyneham (2000) note that nursing has been identified as one of the most 'at risk' occupations in Australia, out-ranking police and prison officers. The consequences of ED staff having to work in an often violent environment have been reported to be linked to increased attrition rates, increased sick leave and disruption to quality patient care (Lyneham, 2000).

The increase in violence and aggression has been attributed to: long waiting times; the stress associated with sudden illness or death of a loved one; high volume of people with some under the influence of chemical substances; the escalating rise of violence in society in general; and, the ED being a high stimuli, crowded and noisy environment (Luck, et al., 2009; Lyneham, 2000; Sands, 2007; Whelan, 2008). In the study by Luck et al. five attributes that emergency nurses embodied, highlighted their desire to 'care' for violent people in the ED and try and reduce violent episodes. The five attributes were: being safe (positioning themselves to avoid being physically hurt and removing potential weapons); being available (using good communication skills); being respectful (using person's preferred name and working harmoniously with them); being supportive (making them comfortable, offering tea, coffee and welcoming family and friends to visit); and finally, being responsive (giving people space, providing a comfortable and safe environment).

Even though the statistics suggest high rates of violence against ED staff, it is important to note that there are still a significant number of violent instances that go unreported by staff (Lau, Magarey, & McCutcheon, 2004). Reflecting back on my experiences as an ED nurse there were many occasions where patients or family would become verbally aggressive and on occasion even physically violent; at one ED I worked there was a police officer on duty in the department between 9 pm and 3 am on Friday and Saturday nights due to the increased violence reported against staff on these nights. Aggression, especially verbal aggression, was part of the culture within the department; it was expected and often tolerated by staff. Concessions were made by staff because of the high stress that some patients and families were under and I know at times I felt that it was part of my role as an ED nurse to 'accept' the abuse. In fact, at times I felt that it was my clinical responsibility to protect the patient and family, even if their behaviour was unacceptable, because of the stressful circumstances in which they found themselves.

Pregnant women who present to the ED

A pathway that is often used for women with bleeding or pain in early pregnancy is to present or be referred to the ED for assessment and management.

> This might involve prolonged waiting times for the patient, assessment by multiple medical staff and delays in diagnosis because of difficulties in obtaining an ultrasound for all nonemergent cases. At times, the ED is not able to provide suitable privacy for such patients who are often distressed and require a pelvic examination. (Brownlea, et al., 2005, p. 108)

There is scant literature available that looks at the problem of triaging pregnant women in the ED. Emergency department staff face frequent challenges in caring for pregnant women who present "with complaints that may or may not be obstetrical in nature" (Pearlman & Desmond, 2005, p. 1). Two American doctors, Mark Pearlman and Jeffrey Desmond, an obstetrician and emergency doctor respectively, believe that it is essential to have "a structured systematic approach to caring for these patients, and open, clear lines of communication between obstetrical and emergency physicians" (p. 1). They also believe that complaints which are definitely pregnancy related should be triaged

directly from the ED to the birth suite, and if not pregnancy related should remain in the ED.

Emergency presentations

As mentioned earlier, emergency presentations are usually given an ATS score of between categories one to three; the higher the ATS score the more urgent the need to be assessed. For example, an ATS score of category one would need to be seen immediately, whereas category three can wait for 30 minutes.

Pregnancy related emergencies

The leading causes of maternal death directly related to pregnancy, in Australia, are thromboembolism, amniotic fluid embolism, and hypertension (eclampsia) (Sullivan, Hall, & King, 2008). In England, the main direct causes of death are thromboembolism, pre-eclampsia and ectopic pregnancy (Centre for Maternal and Child Enquiries (CMACE), 2011). Sadly, even though these women died, the emergency care that they received in the ED was described as excellent and appropriate (Centre for Maternal and Child Enquiries (CMACE), 2011). Unfortunately, these are life threatening conditions and even though lives have been saved with these conditions, it is not always possible to prevent a woman's death.

Krause and Graves (1999) and Parkinson (2007) report that one in five pregnant women will experience bleeding in their first trimester (first 12 weeks of pregnancy). Some of these cases will be urgent in nature and need immediate treatment and others will be non-urgent and require education, support and monitoring. It is important that the ED staff can differentiate between the two, so they can provide appropriate and timely management. The management of non-urgent bleeding in the first trimester is well within the scope of practice for midwives, compared with obstetricians, and clinical referral parameters in the ED should be in place to ensure that appropriate support and education is given to the woman and her family (Krause & Graves, 1999).

Unexpected birth in the ED is classified by most ED staff as an emergency situation (Cameron, et al., 2004). Even the most qualified and experienced ED staff and midwifery staff find unexpected birth in the ED to be an anxiety provoking experience

(Blake, 2012; Lyons, 2010; McLoughlin, 2001). McLoughlin discovered that the ED nurses' reflection upon their practice and subsequent discussion has been shown to lead to valuable information which helps to reduce anxiety for ED staff in similar situations. Lyons advocates that a set of guidelines be developed to help staff prepare for, and manage, unexpected births in the ED. Blake has attempted this by developing a 'checklist' of procedural steps that ED staff should follow if a woman presents in labour. The checklist promotes a medicalised view of birth and not one that would be advocated by the Australian College of Midwives, nevertheless it does help to increase knowledge and consistency of care for women who present to the ED in unexpected labour. The methodology of action research chosen for this study allowed both the ED staff and the maternity staff to critically reflect on their practice and decide what strategies they believed would be effective for them in their context. This was aimed, in part, at bridging the divide between the ED clinicians and the maternity clinicians to foster better working relationships and thus better woman-centred care.

Further obstetric emergencies as listed in Cameron et al. (2004) include ectopic pregnancies and bleeding after the first trimester of pregnancy, such as in the case of placenta praevia (this is where the placenta sits in the lower part of the uterus), placenta abruption (premature separation of the placenta not associated with the birth of the baby) or following the birth, such as a postpartum haemorrhage. These conditions are all directly related to pregnancy and need immediate management (Parkinson, 2007). Overall, most of the literature concurred that pregnant women receive a high quality of care in the ED for emergency conditions (triage category one & two) (Cameron, et al., 2000; Centre for Maternal and Child Enquiries (CMACE), 2011; Curtis, Ramsden, & Friendship, 2007). Emergency staff are well equipped to deal with the life and death situations which, unfortunately, are their core business.

Non-pregnancy related emergencies

Trauma during pregnancy varies in degree and causation. It is caused by motor vehicle accidents, accidental injury and domestic violence (Gilbert, 2011; Gilbert & Harmon, 2003). Grossman (2004), Flik et al. (2006) and Worcester (2003) estimate that approximately seven percent of pregnant women will suffer some form of trauma during their pregnancy. However, trauma will most likely cause the death of the foetus, not the mother (Bobrowski, 2006). One of the main reasons for this statistic is that pregnant

women today continue to work, drive, travel and remain physically active throughout pregnancy and therefore are exposed to the same potential risks for accidents and trauma as the rest of the community. As the frequency of injury appears to increase with gestation, the highest risk for injury is in the third trimester (29 – 40 weeks gestation). The main non-obstetric related causes of maternal death, in Australia, were cardiac disease, psychiatric related causes and haemorrhage (Sullivan, et al., 2008).

Haemorrhage from trauma, especially involving the abdominal region puts the pregnant woman at great risk due to the physiological changes which occur in pregnancy, such as 50% blood volume increase in the third trimester, an enlarged gravid uterus putting pressure on major arteries and organs; and, because pregnancy is a hypercoagulable state, there are added risks for thrombosis (Centre for Maternal and Child Enquiries (CMACE), 2011; Gilbert, 2011). Oh (1997) states that maternal deaths can result from a failure of management, as blood loss is frequently underestimated and volume replacement delayed. Therefore, a multidisciplinary approach with open communication between emergency and obstetric staff is required (Chang, 2009; Pennsylvania Patient Safety Advisory, 2008). Health professionals involved in the front line management, such as ED staff, should have a structured plan of management which can be activated immediately in order to provide optimal care for the pregnant woman in these life threatening situations. The Centre for Maternal and Child Enquires supports this:

> Emergency medicine clinicians should be trained in the identification and management of seriously ill pregnant or recently delivered women, especially those with atypical presentations. They should be able to recognise obstetric emergencies and to understand the physiology differences in pregnant women and how these interact with disease processes. (p. 167)

Physical and emotional violence against pregnant women is a problem which affects women not only in Australia but worldwide (Datner, Wiebe, Brensinger, & Nelson, 2007; Greenberg, McFarlane, & Watson, 1997; Jasinski, 2004; Keeling & Mason, 2010; Larkin, Rolniak, Hyman, MacLeod, & Savage, 2000; Saunders, 2000). Domestic violence (DV) screening tools have been introduced into antenatal environments and EDs in Queensland, although anecdotal evidence suggests that they are not being implemented routinely. There is also debate about whether or not routine screening tools are beneficial. Spangaro, Zwi and Poulos (2009) argue:

> There remains considerable debate as to whether enough is known about the benefits or risks of screening for DV to recommend its routine application. The debate intensified following the publication of three key systemic reviews between 2002-2004 which concluded that there was insufficient evidence to recommend routine screening for IPV [intimate partner violence] in health settings. (p. 56)

Maternal abuse of legal and illegal substances continues to cause concern to health care professionals as it contributes to illness, injury, violence and relationship breakdowns (Burns, Mattick, & Cook, 2006; Degenhardt, Whiteford, Hall, & Vos, 2009; Dowdell, Fenwick, Bartu, & Sharp, 2007; Miles, Francis, & Chapman, 2010; Tuten, Jones, Tran, & Svikis, 2004). Gilbert (2011), an American author, cites that 15% of all pregnant women have a substance abuse problem. In Australia, Burns et al. (as cited in, Australian Institute of Health and Welfare, 2007) reviewed 400,000 birth records and found approximately 1.2% of women used either opioids, cannabis or some form of stimulant drug during their pregnancy. It was estimated that in the late 1990s, in America, 3% of pregnant women used illicit drugs in early gestation (Briggs, 2003) and in a recent report by the Substance Abuse and Mental Health Services Administration (2009) it had increased to 4%. Mothers who use drugs also tend to eat poorly, drink alcohol heavily, smoke and come from poor socioeconomic backgrounds (Gilbert & Harmon, 2003). The mother suffering with a substance abuse problem gains advantages from early identification of the substance abuse. By adopting a proactive and collaborative approach health care professionals may be able to lower the risks associated with substance abuse for the mother and the foetus.

Asthma occurs in about 4% of pregnancies (Blaiss, 2004; Cydulka, et al., 1999). Uncontrolled asthma can be a threat to both maternal and foetal wellbeing and survival. If asthma is well controlled and managed throughout pregnancy, then a severe asthma attack during labour is rare (Stone & Nelson-Piercy, 2012). A prospective cohort study conducted by Cydulka et al. found that the ED doctors were more likely to withhold corticosteroid therapy from pregnant women, as they were concerned about the effects of the medication on the foetus. However, Cydulka et al. claim that there is more harm to the foetus from severe uncontrolled asthma than the drug therapy. They stress the

importance of emergency doctors working collaboratively with specialists, such as obstetrics and respiratory specialists, to ensure a good outcome for mother and baby.

Acute appendicitis occurs in approximately one in 1700 pregnancies (Mourad, Elliott, Erickson, & Lisboa, 2000). Even though this is a relatively rare occurrence, it can be confusing for ED staff because the signs and symptoms of appendicitis can be masked by the pregnancy, plus the growing uterus can make it more difficult to assess the woman. Epilepsy is also another condition which may cause concern during pregnancy, with one in 200 pregnant women having a diagnosis of epilepsy and requiring antiepileptic drugs (Adab & Chadwick, 2006). While pregnancy usually proceeds without problems, it is still important for ED doctors and obstetric doctors to work collaboratively in managing these women; the risks and potential long term effects need to be discussed with the mother and family.

Non-emergency presentations

Non-emergency presentations are usually given an ATS score of either category four or five; this requires the patient to be seen within one or two hours respectively.

Pregnancy related

There are a number of minor ailments of pregnancy for which women may present to the ED. These include: mild nausea and vomiting, commonly referred to as ‘morning sickness’; heartburn; carpal tunnel syndrome; and various skin changes (Biko, 2007). A more severe form of nausea and vomiting, referred to as hyperemesis gravidarum, is a frequent presentation to the ED (Yuk Sang Ting, 2008) and may need to be triaged with more urgency depending on the woman’s condition. Bleeding in early pregnancy has been discussed above in the emergency presentation section, but it is more often viewed as a non-emergency presentation in the ED because the bleeding is only described as light (spotting) to moderate. Miscarriage is the most common presenting reason (Winicoff & Hinshaw, 2005), with the majority of women that present with vaginal bleeding being haemodynamically stable and therefore triaged as a category four (Clinical Update 143, 2011; Indig, et al., 2011). According to Bryan (2003) women who present with bleeding in early pregnancy have a 30-50% chance of having a miscarriage. Chung, Cheung, Sahota, Haines and Chang (1998) reported, in a Hong

Kong study, that only eight of 470 women required urgent surgical management because of bleeding in early pregnancy. Miscarriage is a tragic event for the woman and her partner/family. As mentioned in chapter one, such events are often reported quickly and carelessly by the media. Table 2.3 provides a summary of media reports about a woman, who sadly miscarriage her baby in the toilet of the Royal North Shore Hospital, NSW ED waiting room, in September 2007; the emotive nature of headlines used by the media are clear.

In response to this event the NSW Health Minister, Reba Meagher, announced that all pregnant women who attended a NSW ED would immediately be referred to the maternity ward. The 'advertised' intention with this directive was to provide appropriate clinical and emotional support to women with pregnancy related problems (NSW Health, 2007). Anecdotal evidence by both the ED staff and the maternity staff at the *Many Happy Returns* hospital confirmed that such changes were considered inappropriate and unsustainable and would do little to address the problem and improve the care of pregnant women in the ED.

Table 2.3 Selection of media reports following a miscarriage in the ED

MEDIA REPORTS FOLLOWING A MISSCARRIAGE IN THE ED

1. **The Sydney Morning Herald**: 'Birth in toilet in hospital without care'
2. **The Daily Telegraph:** '[Name] baby agony: No one helped me'
3. **ABC Online:** 'The world today – hospital under scrutiny after toilet miscarriage'
4. **ABC News:** 'Miscarriage hospital illegally understaffed'
5. **Brisbane Times:** 'Tragedy prompts plan for pregnant women'
6. **The West Australian:** 'Pregnant women need better care'

Source: (ABC News, 2007; Benson & Smith, 2007; Brisbane Times, 2007; James, 2007; Lauder, 2007; Sikora, 2007)

The incident mentioned above was a trigger for two major inquiries undertaken in NSW. The first, by Hughes and Walters, was specifically charged with investigating the incident at The Royal North Shore Hospital. Their report was released 26 October 2007 and listed 45 recommendations. The NSW Government response to the Inquiry was released in early 2008 and agreed with 43 of the 45 recommendations. The recommendations from the Hughes and Walters report that are relevant to the findings of my research will be highlighted in the discussion chapter of this thesis.

The second inquiry was instigated in response to the public disquiet over the state of The NSW public health system. Peter Garling, a Supreme Court Judge and former Commissioner, was appointed by the NSW Government to conduct the inquiry into the delivery of acute care services in public hospitals in NSW. Garling submitted the final report, which was extensive, spanning some number of pages and making 139 recommendations for change, on 27 November 2008. The Greater Metropolitan Clinical Taskforce (GMCT), NSW, responded to the report in 2009, giving their support to his recommendations. A number of the recommendations Garling advocated will also be included in the discussion chapter as they are relevant to the finding of this research and support a number of the strategies that the PARG recommended for implementation.

Non-pregnancy related

Pregnant women present to ED with a number of non-urgent complaints. These include, but are not limited to, ear aches, flu symptoms, stomach ‘bugs’, migraines and minor injuries such as fractures, sprains and bruises. All of these complaints require medical care and treatment, but do not necessarily require review by an obstetrician or midwife. However, they do require the ED staff to have a certain level of knowledge so that: the appropriate questions are asked to check for potential pregnancy related problems; the correct medications are prescribed that will be suitable for a pregnant woman to take; and the education, support and follow-up advice is fitting for the gestation of the pregnant woman. To date, no literature that specifically discusses non-pregnancy related concerns has been located and this therefore represents a significant knowledge gap about non-emergency presentations of pregnant women to the ED.

Specialist care in the ED

Very few EDs have a dedicated area or staff for pregnant women, yet they do cater specifically for other specialty type presentations, such as children and mental health patients. To gather more information as to why certain specialties are catered for and others are not, a wider net was cast to look at literature for paediatric and mental health individuals who present to the ED. A brief search has been conducted, in respect of these two areas.

Paediatric presentations

A dedicated paediatric area, in the ED, for the treatment of children has recently become a standard facility in most hospitals. Play therapists are employed by some EDs to put children at ease in order to reduce the anxiety caused by visiting the ED, as well as provide distraction therapy for simple procedures. Despite separate facilities for children and extra dedicated staff, it was reported in a newspaper article authored by Weaver (2007), that children were being put at risk by substandard and inconsistent care in ED. According to Weaver, auditors found that doctors were failing to document vital signs and brain observations in babies and toddlers under the age of two with head injuries, meningitis, seizures and other illnesses. Children were also receiving vastly differing treatment depending on which ED they were taken to. This same inconsistency has been reported by clinicians as existing with the treatment of pregnant women in Queensland EDs (McAuliffe, M., personal communication, 2 December, 2006).

Furthermore, the news article makes reference to mandatory guidelines for the 12 most common reasons babies and children are admitted to ED, which were implemented across the state of NSW in 2007. The guidelines contain advice on treating conditions such as asthma, abdominal pain, croup, fever, gastroenteritis and sore throats. Weaver (2007) reports that Dr Annette Pantle, director of clinical practice improvement for NSW, describes the guidelines evolving from a two-year research project and as offering a blueprint for other states. She says "This isn't trying to make ordinary doctors into pediatricians, it's about trying to give ordinary doctors and nurses confidence with dealing with children." It is this sentiment that guides this research project; it is about

devising a ‘change to practice’ to give doctors and nurses confidence with triaging and managing pregnant women when they present to the ED.

In a more recent UK article it was confirmed that 25-30% of all ED presentations were children and that most of these presentations were cared for by Registered Nurses without paediatric qualifications (Grant & Crouch, 2011). This is contrary to what was recommended in the UK Platt report in 1959, which stated “that children in hospital must be cared for by staff trained in caring for children” (as cited in Grant & Crouch, 2011, p. 209). Grant and Crouch place emphasis on multidisciplinary collaboration to develop emergency nursing training courses which incorporate children’s emergency care as well as recognising emergency nursing as a specialty in its own right.

Individuals with mental health problems

In the early 1990s it became apparent to ED staff that the ATS was inappropriate when trying to triage people with mental health problems who presented to the ED. This lead to the development of a mental health triage scale (MHTS) (Broadbent, Moxham, & Dwyer, 2010) which subsequently demonstrated an improvement in confidence and competence in ED staff when triaging people with mental illness (Broadbent, Jarman, & Berk, 2004). The emergency triage requirement would function as normal and if the ED staff member deemed further mental health triage was necessary they would refer for a more specialist assessment. Broadbent (2001) defines mental health triage as:

> ...a secondary triage process. Having been referred from the ED the mental health triage worker conducts a full examination and assessment of the client and then refers the client to the most appropriate treatment facility such as community support or admission as an inpatient. (p. 32)

In Australia, mental health nurse practitioner (MHNP) and psychiatric liaison nurse positions have been established to function collaboratively with ED staff in large hospitals (Sharrock & Happell, 2000, 2001; Summers & Happell, 2003; Wand, 2004; Wand & Fisher, 2006). This role was developed in response to increasing numbers of people with mental health problems presenting to ED (Marynowski-Traczyk & Broadbent, 2011; Sinclair, Hunter, Hagen, Nelson, & Hunt, 2006; Wand & Schaecken, 2006). Wand and Schaecken evaluated the Mental Health Liaison Nurse’s role in a

NSW ED and found an overwhelmingly positive response from both people with mental health problems accessing the ED and from staff who work in the ED. The points that emerged from the evaluation included: "the perceived benefit of having someone who can see them quickly and expedite the ED process"; "…being seen by someone who understood them and knew what to do without the consumer having to explain their situation in great detail"; and "…the mental health nurse took time to listen and provide emotional support" (p. 18).

An Australian study (Summers & Happell, 2003) measured the satisfaction levels of individuals with psychiatric problems with the services received in the ED of a Melbourne metropolitan hospital. The results indicated a high level of satisfaction, particularly with the availability of staff with psychiatric qualifications and experience. These findings supported the need for psychiatric consultancy services to be available in the ED, and further identified the need for triage guidelines to be tailored to the needs of individuals with mental health problems. In addition, ED triage staff to be appropriately educated to adequately triage these people.

Another study in the United Kingdom (Cassar, Hodgkiss, Ramirez, & Williams, 2002) confirmed that the ED may be the most frequently used setting for urgent mental health assessments in central London. The authors of this British study argued that mental health liaison services based in inner-city ED should be developed to improve the management of these patients. In a final research report, Clarke, Brown, Hughes, and Motluk (2006) conducted a study in a Canadian ED with the aim of improving the triage of mental health patients by offering education to ED triage nurses. They found combining education sessions for ED nurses and psychiatric nurses produced shared problem solving opportunities and a deeper learning experience, which enhanced the care for mental health patients. This highlights the importance of a collaborative approach and lends further support to using action research as the methodology for this study.

Need for the research

Nature of the problem

As illustrated throughout this chapter, pregnant women present to the ED with a myriad of complaints, making appropriate triage challenging (Pearlman & Desmond, 2005). Several midwives and emergency nurses at a hospital in Queensland identified that a problem existed with the triage and management of pregnant women in their ED and believed that care could be improved. Although this problem was identified anecdotally, the exact nature and extent of the problem and the reasons why the problem existed remained unknown. This study worked with clinical staff to develop an understanding of the exact nature of the problem and to develop a 'change to practice' that improved the management of pregnant women in the ED.

Summary of the literature

The literature demonstrates that:

- Within Australia maternity care is often medicalised, under the domain of obstetricians and occurs within hospital type settings. This leads to fragmented care for the woman and often dissatisfaction for the midwife.
- Evidence has shown that continuity of care models by a known midwife are safe and increase women's satisfaction.
- EDs are busy and stressful environments to work in, owing to high usage and access block problems.
- The study by Gerdtz et al. (2009) identified significant problems with consistency of triaging pregnant women when using the Australasian Triage Scale.
- There has been an increase in the number of urgent and emergency presentations to the ED, with the most common presentation for pregnant women being early pregnancy bleeding. Because this is a non-urgent presentation, in most cases, waiting times will increase in the future for these types of presentations. Even though, from a physiological standpoint, these presentations are not urgent, from

an emotional and psychological standpoint they are very dramatic events for the woman and family. This was demonstrated by the emotive media headlines.

- Department of Health and Ageing (2010) list pregnancy related conditions as one of the top five reasons for going to a hospital. It is therefore possible to conclude, as most hospital admissions transpire via the ED, that pregnant women presenting to an ED, in Australia, is a relatively frequent occurrence.
- Collaboration and communication have been identified as essential elements to improve the care of pregnant women in the ED. An action research approach will promote multidisciplinary collaboration and mutual understanding.
- A number of other speciality areas (paediatrics and mental health) have identified and developed processes to better manage their 'specialised group' in the ED and therefore provide improved care.

Research questions

This research was conducted to answer the following research questions.

1. What is/are the current problem/s with the triage and management of pregnant women in the ED? Why does this problem exist?
2. How can the situation be improved?
3. How effective is the plan that has been developed and actioned in improving the situation for pregnant women who present to the ED?
4. How do I, as the action research facilitator, support 'co-researchers' to find solutions and generate practice knowledge?

Further questions arose as the research project unfolded and data collection commenced, but only to address the research problem. By providing answers to the above questions a 'change of practice' was planned, implemented and evaluated in order to improve the care of pregnant women in the ED.

Archive system

Where possible, references and abstracts were directly exported to the Endnote bibliographic database. All other references unable to be directly exported to Endnote were manually loaded. Additionally, all electronic pdf copies of articles and reports are

saved to a USB or DVD and hard copies of articles are being kept in a filing system, indexed by key search terms.

Conclusion

This chapter has reviewed the available literature on the topic of triage and management of pregnant women in the ED. To begin with, literature exploring available maternity services in Australia was briefly discussed. Next, a description of the nature of EDs was explored to help contextualise the environment where the research is located. Literature looking at reasons why pregnant women present to the ED was then highlighted, including both urgent and non-urgent presentations. Pregnant women who present with emergency presentations were managed well by the ED staff. However, the most common non-urgent presentation, early pregnancy bleeding, was shown to be frequently criticised in the media as being poorly managed in the ED. The literature describing other 'specialty' type presentations, such as paediatrics and mental health patients, demonstrated the importance of the ED staff having collaborative working relationships with health professionals from the 'speciality discipline' and ensuring that lines of communication are kept open. This promotes effective management and care for these 'speciality' groups. A research methodology was chosen which facilitates a collaborative and multidisciplinary approach, namely action research, and this will now be discussed.

CHAPTER 3: RESEARCH METHODOLOGY

"I'm not strange, weird, off, nor crazy, my reality is just different from yours."
(Lewis Carroll, Alice's Adventures in Wonderland and Through the Looking Glass)

Introduction

The previous chapter reviewed what was known about the care of pregnant women when they attended the emergency department (ED) and established 'why' this research was important to undertake. This chapter will be devoted to examining the 'how' of the research process, including a discussion on my worldview (advocacy/ participatory/ emancipatory), interpretative framework (critical social theory, in particular Habermas' theories of communicative action [TCA] and knowledge-constitutive interests [KCI]), methodology (action research [AR]/ participatory action research [PAR]); and the methods used to collect data.

Creswell (2007) claims that all qualitative researchers bring their own *weltanschauung*, a German word meaning world (*welt*) view (*anschauug*), or sets of beliefs and assumptions as well as interpretive and theoretical frameworks to shape their research project. He also claims that good research involves making these worldviews and frameworks explicit in the writing of the study. Crotty (1998) supported this assertion in a similar statement, "Inevitably we bring a number of assumptions to our chosen methodology. We need, as best we can, to state what these assumptions are. This is precisely what we do when we elaborate our theoretical perspective" (p. 7). Crotty (1998, p. 2) suggested that researchers need to ask themselves four main questions prior to undertaking research. They are:

- What methods do you propose to use?
- What methodology governs your choice and use of methods?
- What theoretical perspective lies behind the methodology in question?
- What epistemology informs your theoretical perspective?

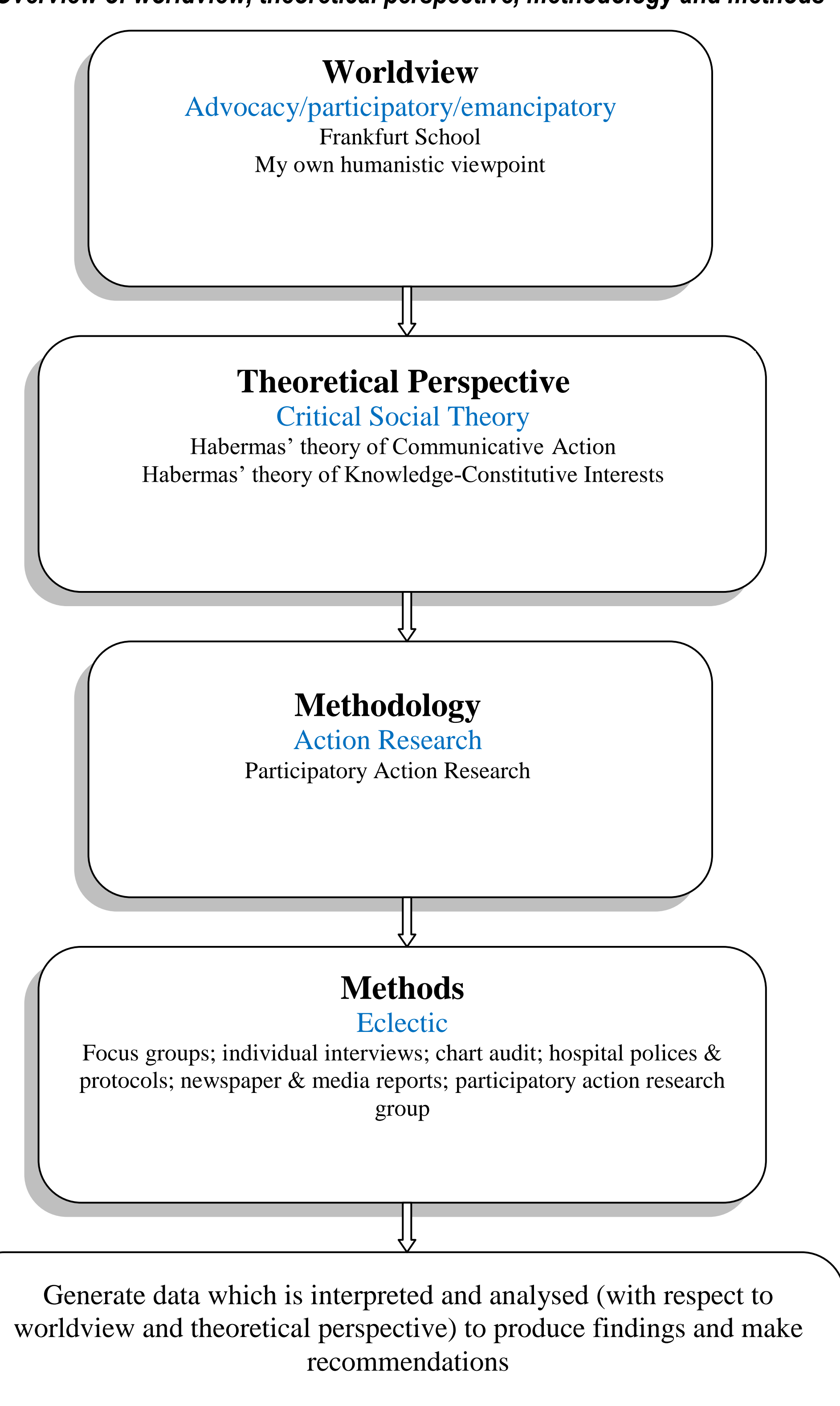
To help answer the above questions, Birks and Mills (2011, p. 50) pose further questions to help the researcher identify their theoretical sensitivity and underlying assumptions. The questions they recommend each researcher ask themselves are:

- How do we define our self?
- What is the nature of reality?
- What can be the relationship between researcher and participant?
- How do we know the world, or gain knowledge of it?

It is important to ask these questions and understand one's own assumptions, beliefs and values, as understanding where you are methodologically, will "overtly reshape the interactive relationship between researcher and participants in the research process" (Mills, Bonner, & Francis, 2006, p. 9). Furthermore, it is important to be aware that hidden assumptions, discourses, ideologies and constructions can become exposed through interaction and dialogue, although full disclosure may never be possible since many biases and ideas are not consciously known or talked about (Giddens, 1984). A diagrammatic representation of my approach to this study is illustrated in Figure 3.1. My worldview stems from my own humanistic viewpoint, which champions egalitarianism and justice and therefore entails an advocacy role and moreover reflects the emancipatory philosophy of the Frankfurt School theorists, and in particular Jürgen Habermas. Emancipatory philosophy purposely aims to raise awareness of the forces which shape and constrain social life, advocate a participatory approach to assist individuals to develop ways in which to resist and overcome these forces, and is based on the belief that individuals must share responsibility for their own liberation. A participatory approach to research inevitably follows a critical theory perspective and is considered by some to be virtually axiomatic for critical theory research (Kemmis & McTaggart, 2005).

Throughout this chapter I will address the above questions and justify why a critical AR approach was chosen to best answer the research questions and to achieve the aims of this research project. Links between my worldview, theoretical framework and methodology will be made explicit throughout the chapter. To conclude a detailed description of the research design, data collection methods, methods used in data analysis, rigour and ethical considerations will be presented.

Figure 3.1 Overview of worldview, theoretical perspective, methodology and methods



Worldview (*Weltanschauung*)

The definition that I will use for worldview has been described by Guba (1990, p. 17) as "a basic set of beliefs that guide action". In order to answer the earlier questions by Crotty (1998) and Birks and Mills (2011) and make my own set of beliefs clear, I will draw on the following five concepts as a guide. *Ontology* (what is the nature of reality?), *epistemology* (what is the relationship between the researcher and that being researched?), *axiology* (what is the role of values?), *rhetorical* (what is the language of research?) and *methodological* (what is the process of research?). Assumptions about these five areas lead an individual to choose qualitative research and their individual stance on each of these, will then guide how they design and conduct their research (Creswell, 2007).

Denzin and Lincoln's (2005) definition of qualitative research sits well with my own views on how research should be conducted. They propose a generic definition of qualitative research as one that:

> is a situated activity that locates the observer in the world. It consists of a set of interpretive, material practices that make the world visible. These practices transform the world...qualitative researchers study things in their natural settings, attempting to make sense of, or interpret phenomena in terms of the meanings people bring to them. (p. 3)

They further note that qualitative researchers use many methods (i.e. field notes, photographs, interviews, conversations, memos) to turn the world into a series of representations. This is consistent with my own ontology on research. As a researcher I believe that the aim should be to increase understanding about a situation, with the general purpose of improving the situation for the people involved. The research process should be guided by rational human interests (Habermasian influence) and the rich data that is gathered should advance the research to reach an outcome that benefits those involved in the research process. I believe that people can bring about positive change for themselves given the right circumstances. I acknowledge that there are circumstances where people are so constrained, disempowered and oppressed that this may not be possible, even if given assistance. The forces of social, political, economic, military, religious and cultural systems that individuals may be immersed in can

prohibit or inhibit positive change and instead work to maintain the potentially oppressive status quo. Furthermore, I believe that to understand the meanings people give to certain phenomena the research process must be collaborative, reflective, reflexive, respectful and include the perspectives of all those involved.

As a researcher, I believe it is important to study real world problems in their natural settings in order to change practices to improve the situation for those involved. I am comfortable using different methods to gather data as I consider this translates to a greater understanding of the phenomena. Qualitative researchers "deploy a wide range of interconnected interpretive practices, hoping always to get a better understanding of the subject matter at hand" (Denzin & Lincoln, 2005, p. 4). For this study, I used a combination of a participatory action research group (PARG), individual interviews, focus groups, field notes, chart audit, and written documents to generate a greater understanding of the phenomena being studied. A full description of the study design will be discussed later in this chapter.

Epistemology is the philosophy of knowledge and addresses such questions as 'what is knowledge?', 'how do we acquire it?' and 'what uses does it have?' (Klein, 2005). I believe that people are capable of rationality, and are conscious, purposive actors who have ideas about their world and attach meaning to what is going on around them (contextual), based on information (subjective and objective) and their previous experiences. The ability to reflect is vital in understanding how the world is and what it means. I believe it is possible for people to want to come together with the shared aim of generating new knowledge with the intent of improving the status quo. Acquiring knowledge in this way (from multiple people who are affected by the phenomenon) promotes collaboration and teamwork, and is representative of the individuals' desire to develop a mutual understanding of the situation from multiple perspectives. Furthermore, I believe if the right circumstances are in place (trust, collegiality, respect, and justice) the shared knowledge generated is given sincerely and truthfully (from the individual's perspective) and in turn encourages individuals to use their new knowledge to implement positive change for themselves and others. Ideally, a collaborative relationship between the researcher and those involved in the research offers the opportunity for reciprocal dialogue and sharing of knowledge to better understand the phenomena of interest and to discover new ways to improve the situation. The

collaborative nature of participatory action research implies that a critical partnership exists between the researcher and 'participants' (Baldwin, 2006; Heron & Reason, 2006) and that the research should be conducted *with* participants not *on* participants. As beautifully stated by Martin-Baro (1994),

> All human knowledge is subject to limitations imposed by reality itself. In many respects that reality is opaque, and only by acting upon it, by transforming it, can a human being get information about it. What we see and how we see is of course determined by our perspective, by the place from which we begin our examination of history; but it is determined also by reality itself. Thus, to acquire new psychological knowledge, it is not enough to place ourselves in the perspective of the people; it is necessary to involve ourselves in praxis, an activity of transforming reality that will let us know not only about what is, but also about what is not, and by which we may try to orient ourselves toward what we ought to be. (pp. 28–29)

Person-centredness is a concept I firmly support. It is one of the key concepts embedded in the Australian version of the *Kozier and Erb's Fundamentals of Nursing* textbooks (Berman, et al., 2012), of which I am a co-author. Putting the focus on the person, whether it be in a patient or a health professional role, gives the person freedom to make their own choices and be involved in decision making that directly affects them. I consider the concept of person-centredness to be linked with humanity, in so far as a holistic position is taken which respects all elements of the individual. This concept of humanity attracted me to Habermas' work.

Axiology is concerned with the role of values and ethics; knowing right from wrong, good from bad, just from unjust and so on. Embree (1979, p. 595) discusses Husserl's writings on "what, in contrast to an *is*, is an *ought*?" The main example that Husserl uses to illustrate the potential for value judgements is in regard to these two words. This once again illustrates the importance of language in promoting effective and respectful communication. The example as outlined by Embree (1979) is: 'a warrior *ought* to be brave' in contrast to 'this warrior *is* brave'. The second assertion uses the proposition 'is', while the first uses 'ought'. Additionally, the second assertion is specific by using 'this warrior' opposed to the first assertion which uses a universal term, 'a warrior'. Next, Husserl demonstrates how the first assertion can easily be changed to a universal

negative assertive. For example, ‘a warrior *ought not* to be cowardly’. Husserl declared that this would be a logical inference or syllogism to make – “if an A ought to be B and a B ought to be C, then an A ought to be C” (Embree, 1979, p. 596). Therefore, the first assertion becomes equivalent to a value judgement. For example, ‘only a brave warrior is a good warrior’ and the third assertion above becomes ‘A cowardly warrior is a bad warrior’. The use of language and how a person chooses to frame statements can turn a person from being non-judgemental to judgemental in less than ten small words.

As a professional Registered Nurse and Midwife I have been adhering to codes of professional conduct and ethics my entire career. As a young impressionable nursing student I was often told by nursing educators that a person’s behaviour, both personally and professionally, had to be beyond reproach or one could risk being ‘kicked out’ or worse not being permitted registration. Stories of nurses who had lost their registration (I am sure most of these were fictitious or exaggerated) would be whispered about in the tearoom and in corridors, no doubt to instil in students/staff a sense of doing what is good and right. Many years later in my role as a nursing and midwifery lecturer, I endeavour to embed in my teaching plans the importance of person-centred care and respect for an individual’s race, culture, religion, age, gender, sexual preference, physical and mental state. This directly reflects the Australian Nursing and Midwifery Council’s (ANMC) (2005), *National Competency Standards for Registered Nurses* and the ANMC, Royal College of Nursing Australia (RCNA) and the Australian Nursing Federation’s (ANF) (2008) *Code of Ethics for Nurses* in Australia. However, with that said, there are exceptions to supporting this standpoint, for example if I feel that the person’s request or behaviour is illegal or immoral (paedophilia) or their beliefs and/or behaviours cause oppression or harm to another individual, I could not respect their wishes and would feel obligated to seek or advocate for justice in such a situation.

I was raised by Christian parents and learnt at a young age the importance of helping other people who were seen as ‘less fortunate’ than ourselves. I have endeavoured to live by this mantra of ‘helping others’ throughout my life and as a result I became more aware of the injustices and inequality that existed in the world; therefore values of equality and justice became important to me. A consequence of my desire to help and please others was the development of a passive personality during my teens and early adulthood years. Recognising this about myself, I engaged with the reflective practice

and assertive communication literature. Learning how to be more assertive proved to be an empowering exercise and allowed me to achieve my own desires and needs while at the same time respect the needs of others. The values of respect, honesty and integrity became more important to me. Once again communication and language were important in my life as a way to learn to value myself, without having to devalue others.

Reflective practice also enabled me to learn more about myself; the way I worked with and interacted with people in my family and work life. It made me aware of and challenged long held assumptions and biases, and caused me to recognise what I valued and believed in. Reflective practice and reflexivity, which is the awareness of own attitudes and values (Payne & Payne, 2004), will be discussed in more detail later in the chapter.

Rhetoric is concerned with the nature of language in research. Action research appealed to me because it used language that included words such as: collective and collaborative; real-world problems; improve situations for everyday people in everyday situations; self reflective inquiry; clinically driven research; and a continual process of planning, acting, evaluation and reflection. These words mean something to me because of my strong clinical background and love of the clinical environment; I wanted to research a real clinical problem to improve the situation for those that the problem affected. Furthermore, I wanted to work alongside clinicians to achieve this so that the solutions and new treatment protocols that were formulated belonged to them and therefore would be more readily accepted and implemented. I can recall many times in my clinical career being told to implement a new policy by management without any consultation with me [the worker], and feeling disheartened and undervalued that I and my colleagues, who understood the problem and were living it each day, were not given the respect or opportunity of being asked our opinions and ideas. This experience made me value collaboration and working with people to understand and improve situations.

Other examples of words used to describe AR include: planning, acting, evaluating and reflecting, words which are also used in the nursing process. This language is therefore familiar to nurses and midwives because it is part of nursing's curricula, thus making it easier for clinicians to understand AR and become involved. Research is often a scary prospect for clinicians and I wanted there to be a sense of familiarity to lessen the

‘scary’ part and make it seem attractive and ‘doable’ for clinicians. The use of language and how we phrase words is so important in encouraging and helping people develop better self-esteem and self-worth. This is why AR in this situation is ideal, as it allows this process of working with participants in a mutually respectful partnership to occur. In addition, by using Habermas’ TCA, I was able to establish opportunities for ideal speech situations (ISS) to occur via the PARG meetings. I will talk more about Habermas’ TCA shortly and share examples of where I believe ‘ISS’ occurred in later chapters.

The fifth and final concept, methodological, refers to the process of research. It is widely accepted (Creswell, 2009; Denzin & Lincoln, 2005; Holmes, 2008) that in order to choose the right methodology the researcher must first be honest and open about their experiences and beliefs. The researcher needs to be comfortable with the methodology but also ensure that the methodology is suitable to address the research question/s being asked. The research process, as mentioned earlier, had to allow me to be collaborative in nature, to work alongside clinical colleagues, not only to understand the problem but to also discover new ways to improve the situation and then implement these changes. I wanted this research to bring about change so that the situation was improved for the participants and so that the participants felt empowered to continue to improve the situation for themselves and others, after the research was finished. The methodology that made it acceptable for me to do this was PAR.

There are two different ideas concerning worldviews. Denzin and Lincoln (2005) and Holmes (2006) persuasively argue that worldviews cannot be mixed. Holmes asks “Can we really have one part of the research which takes a certain view about reality nested alongside another which takes a contradictory view?” (2006, p. 5). On the other hand mixed methods researchers such as Greene and Caracelli (1997) and Creswell (2009) argue that one can use multiple worldviews, as long as the researcher makes them explicit and honours them in the research process. Creswell (2011) also asks “Is the idea of mixing realities actually all about whether one paradigm takes precedence over another...?” (p. 276). These differing perspectives deserve further discussion and debate in the literature as they are important philosophical questions, but here I have taken the former view, conducting the research from a consistent critical theory perspective.

Creswell (2007) focuses on four main worldviews that inform qualitative research. They are: Postpositivism, Social Constructivism, Pragmatism and Advocacy/participatory. In light of my personal experience, assumptions, beliefs and values stated above, I was able to discern the worldview that fits most with my own research agenda is Advocacy/participatory. Creswell (2007, 2009) purports that the basic tenet of this worldview is for action that will change the lives of participants, institutions and that of the researcher. Issues such as oppression, domination, suppression, equality and hegemony are important to study (Creswell, 2007; Freire, 1972; Reason & Bradbury, 2006). Creswell (2009) further elaborates to include that advocacy/participatory research contains an action agenda for reform that may change the lives of participants, the organisations in which the participants/individuals work and live and the researcher's life. This worldview advocates for participants to help shape the research and be involved in the research process thus allowing their voices to be heard. The theoretical framework that goes hand in hand with this worldview is critical theory.

Theoretical framework

Theoretical perspective can be defined as "the philosophical stance informing the methodology and thus providing a context for the process and grounding its logic and criteria" (Crotty, 1998, p. 3). The theoretical framework is usually regarded as the theory that informs the methodology (Holmes, C., personal communication, August 11, 2011). It can be difficult to find a theoretical framework that benefits the research project and at times research topics may be investigated from a non-theoretical standpoint (Schneider, 2003). In the latest edition of Denzin and Lincoln's (2011) qualitative handbook they have written in the preface:

> We no longer just write culture. We perform culture. [ ]. It is a new day for our generation. We have drawn our line in the sand, and we may redraw it. But we stand firmly behind the belief that critical qualitative inquiry inspired by the sociological imagination can make the world a better place. (p. x)

It is a premise of critical social theory, which is the theoretical framework for this research project, that we should strive to make the world a better place. This was not a difficult decision, since it articulates beliefs and aspirations similar to my own.

Critical social theory

Critical theory was developed through the work of members of the Institute for Social Research in Frankfurt, Germany in 1923 and known as the Frankfurt School (Street, 1992). Critical theory, inspired by the writings of Marx, Habermas and Freire, includes emancipatory movements (Polit & Beck, 2010; Weaver & Olson, 2006) and is concerned with countering oppression and redistributing power and resources (Lutz, Jones, & Kendall, 1997; Maguire, 1987) by challenging basic social assumptions which maintain hegemony (Street, 1992). Critical theory explains social order in such a way that it becomes the catalyst for change (Fay, 1987) and transforms conscious ways of thinking (Carr & Kemmis, 1983). Habermas (as cited in, Fay, 1975) contends that when critical theory is combined with political determination and has the aim of freeing people from their oppressive everyday lives, it should be referred to as critical social theory.

There are three key elements which Fay (1975) claims characterise critical social theory. Firstly, it rejects positivism as the only paradigm for social science; secondly, it must have a process of enlightenment and self-understanding that demonstrates that peoples' actions may not be out of conscious knowledge and choice, but instead be due to social conditions that control them; and thirdly, rational discourse must be the foundation upon which the oppressed person makes a change in his/her basic self-conception. For rational discourse to transpire and for the person to develop a new awakening Faye suggests that:

> It requires an environment of trust, openness, and support in which one's own perceptions and feelings can be made properly conscious to oneself, in which one can think through one's experiences in terms of a radically new vocabulary which expresses a fundamentally different conceptualization of the world, in which one can see the particular and concrete ways that one unwittingly collaborates in producing one's own misery, and in which one can gain the emotional strength to accept and act on one's new insights. (1977, p. 232)

Nursing's engagement with critical theory in Australia can be traced back to the early 1980s with Deakin University School of Nursing developing a pre-registration nursing course based on Habermas' three types of knowledge-constitutive interest (Holmes,

1989, 1996; Nelson, 2012). "Increasingly in the nursing literature, theorists have examined the use of critical theory in nursing (especially as understood by Habermas) and many have advocated it as a research approach to guide knowledge development in nursing" (Mill, Allen, & Morrow, 2001, p. 109). Critical theory appeals as a framework for nurses' professional growth and development as it helps to address oppressive socio-political conditions influencing health care (Browne, 2000; Hardcastle, 2004; Kuokkanen & Leino-Kilpi, 2000; Stewart, 2007; Williams, 2005). Wells (1995, p. 52) proposes that critical nursing theory "offers a research perspective that may help uncover the nature of enabling and/or restrictive practices, and thereby create a space for potential change and, ultimately, a better quality of care for patients".

Ultimately, this study is concerned with pregnant women being oppressed by an inadequate healthcare system. However, it is also important to acknowledge that the nursing profession itself has a longstanding history of being oppressed (Ford & Walsh, 1994; Lovell, 1982; Street, 1992; Whitehead, 2007). Roberts (1983b) and Hedin (1986) are of the opinion that the oppressive conditions in which nurses operate leads to internalisation of negative messages about themselves and subsequent destructive behaviours, for instance horizontal violence, often seen in the nursing profession. I do not agree with this comment, and believe it is itself an example of horizontal violence. Nursing should not be blamed for its subordinate position (Benjamin & Curtis, 2010). Chavasse (1992) insists that before nurses can empower others [patients] to engage in positive behaviours, they themselves need empowering. I do not presume to have the ability to empower people. What I hope is that by using a critical PAR approach I will be able to create opportunities for people where they may choose to be empowered through emancipatory processes. Grundy (1987) supports this notion and discusses it extensively in her work with teachers and curriculum development.

Within the critical theory paradigm, research becomes a means for taking action and a theory for explaining how things could be (Maguire, 1987). A desired focus is praxis, or the combination of reflection and action to effect transformation (Mill, et al., 2001). Grundy (1987, p. 139) notes that "within the Habermasian theory, enlightenment is reflexively related to action. In the work of these teachers we see that the development of a critical consciousness was an important precondition of emancipatory praxis". Freire (1972, p. 28) adds that the deliberate conscious process is praxis; purposeful

"reflection and action upon the world in order to transform it". Fay (1987) describes false consciousness as "the systematic ignorance that the members of...society have about themselves and their society" (p. 27). The concept of 'hegemony' was developed by Gramsci (Crossley, 2005) to explain the process whereby the dominant power [bourgeoisie] win the hearts and minds of the people and give the impression that the condition of the people is good and appropriate and beneficial for all (Crossley, 2005; Taylor, 2000).

Reflective practice

Reflective practice was first described by Schön in 1983 (as cited in Nelson, 2012) as "the cyclical interaction of learning and experience" (p. 203). Cycles of reflection and action are essential to the success of AR (Koch, Mann, Kralik, & van Loon, 2005; Winter & Munn-Giddings, 2001), therefore all members of the PARG in this study were encouraged to keep a reflective journal. Journaling (or writing) is but one way that a person can engage in reflective practice; other activities that can stimulate reflective thinking include drawing, music, creative art, dancing and audio taping (Taylor, 2000). Regardless of the method used to stimulate reflective practice, it was important that the PARG wrote down their thoughts. In this way, their reflections would easily be recalled and be available for discussion during the meetings. To encourage reflective practice and journaling, exercise books and pens were distributed at the first meeting of the PARG. No members of the group had previously kept a professional or research journal, but voiced their support and said they would be comfortable to do so throughout the research study. Emden (1991) believes that professionals with a strong commitment to improving practice want to be reflective practitioners, therefore it was hoped that the PARG would embrace the suggestion of journaling and remain engaged with journaling throughout the project and beyond. This is supported by Schön's (Schön, 1983) research which discovered that reflective practice among expert teachers came naturally without them having to try.

Reflection within PAR is a dynamic evolving process. Van Loon and Mann (2006) in their research with female victims of sexual abuse, found that when an action did not produce the result that was wanted by the woman she was encouraged to think about why it did not work and try and make sense of the problem though 'sense making' conversations with the group. The outcome often brought about new meaning to the

situation and the desired action was no action at all. "Such sense making conversations bring about understandings that can be critiqued, reshaped and embodied" (van Loon & Mann, 2006, p. 131). Schön (1983) refers to this process as 'reflection-on-action'.

There are various levels of reflection (Burns & Bulman, 2000; Koch, et al., 2005; Usher, Foster, & Stewart, 2008; Usher & Holmes, 2006). Descriptive reflection relates to events and responses to the discussions experienced by the group, evaluative reflection critiques actions, thoughts and feelings, as related to the inquiry process and practical reflection occurs when a summary of the communications is given as feedback to the group. Collaborative, reflective discussions are helpful in generating deeper insights and understandings (Grundy, 1987; Street, 1992). Taylor (2000) describes emancipatory reflection as leading to 'transformative action' "which seeks to free nurses and midwives from take-for-granted assumptions and oppressive forces which limit them and their practice" (p. 196). Taylor (2000) refers to emancipatory reflection, with the intent of bringing about change as praxis.

Group reflection facilitates emancipatory knowledge by allowing the participants to recognise connections between their experiences and that of others who may share similar experiences (Koch, et al., 2005; Winter & Munn-Giddings, 2001). There is a common understanding that can help the participants feel free to express their ideas if others in the group have similar thoughts and feelings as themselves. The PARG meetings provided an environment in which group reflection, sharing and understanding could occur. According to Habermas' TCA, this provided the opportunity for 'ISS' to arise.

Jürgen Habermas the philosopher

Habermas' work crosses many disciplinary boundaries and as such he is often regarded as an interdisciplinary theorist (Finlayson, 2005), and is considered to be the leading scholar of the second generation of the Frankfurt school, following prominent figures such as Horkheimer, Adorno and Marcuse (Outhwaite, 1994). Habermas has published a great deal, but for this thesis I will be mainly refer to his Theory of KCI and TCA.

Habermas describes critical social theory as generating knowledge, based on free, equal, uncoerced and undistorted communication (Fulton, 1997). Habermas has lived a remarkable life and accomplished a great many achievements; he has recently celebrated his 83rd birthday (18 June 2012) and continues to present at conferences and contribute to the literature. He was the middle child born to Ernest and Grete Habermas, having an older brother and younger sister. He married Ute Wesselhoeft in 1955 and they had three children; Tilmann, Rebekka and Judith (Gregersen, 2009). An account of Habermas' life and work achievements can be found in Appendix A.

Habermas' theory of knowledge-constitutive interests (KCI)

Habermas' earlier work focused on knowledge and human interests (Harrison-Barbet, 2011). Not surprisingly, for someone of his status, there has been significant response to and critique of his work (Midgley, 1996; Ottman, 1982; Ulrich, 1983) especially around his concept of KCI. Habermas (as cited in Reynold, 2002, p. 1163) defended his position; "My point is that in the last few years the framework of discussion has changed in a way which makes criticism less urgent. What is now needed is the construction of a theory of communicative action". The emancipatory KCI appears to be the focus of his TCA. Reynolds purports that Habermas developed the theory of KCI out of a "need for, and remains one of the most robust expositions of an epistemological critique against positivism" (p. 1163). This view is not necessarily shared by others because the Frankfurt School had already demolished positivism before World War 2 and there was little left for Habermas to do in this respect. Holmes' view is that the theory of KCI was a precursor to Habermas' TCA and was more "aimed at elucidating the nature of social life and developing a reasonable solution to the agency/structure dilemma" (Holmes, C., personal communication, August 11, 2011). I would agree with this view.

Habermas' view was that different kinds of knowledge are shaped by the particular human interest that they serve (Carr & Kemmis, 1986a; Harrison-Barbet, 2011). The three types of knowledge that Habermas describes are: technical, practical and emancipatory (Kemmis, 2006). I have used Kemmis' definition of these concepts for the purpose of this study.

> Technical – is orientated essentially towards functional improvement measured in terms of its success in changing particular outcomes of practices. This kind of action research is a form of problem-solving, and it is regarded as 'successful' when outcomes match aspirations – when the defined goal of the project has been attained. But such action research does not necessarily question the goals themselves, nor how the situation in which it is conducted has been discursively, socially and historically constructed.
>
> Practical – it has technical aspirations for change, but it also aims to inform the (wise and prudent) practical decision-making of practitioners... practitioners aim not only to improve their practices in functional terms, but also to see how their goals, and the categories in which they evaluate their work, are shaped by their ways of seeing and understanding themselves in context...Unlike technical action research, however, practical action researchers aim just as much at understanding and changing themselves as the subjects of a practice (as practitioners) as changing the outcomes of their practice.
>
> Emancipatory – aims not only at improving outcomes, and improving the self-understandings of practitioners, but also at assisting practitioners to arrive at a critique of their social or educational work and work settings...It aims to connect the personal and the political in collaborative research and action aimed at transforming situations to overcome felt dissatisfactions, alienation, ideological distortion, and the injustices of oppression and domination. (pp. 95-96)

All three of these types of knowledge interests were found in my research and will be explored later in the results and discussion chapters. Table 3.2 represents a summary of Habermas' three types of KCI.

Table 3.2 Habermas' three types of KCI

Interest	Knowledge	Medium	Science
Technical	Instrumental (casual explanation)	Work	Empirical-analytic or natural sciences
Practical	Practical (understanding)	Language	Hermeneutic or 'interpretive' sciences
Emancipatory	Emancipatory (reflection)	Power	Critical sciences

Source: Carr & Kemmis (1986, p. 136).

Habermas' theory of communicative action (TCA)

Habermas' TCA draws out the emancipatory function of deliberative democratic dialogue, which is the most common style in which action researchers work, collaborate, gather and reflect on data (Reason & Bradbury, 2006). In essence, the TCA aims to explain how people communicate in an attempt to reach a mutual agreement about themselves and their actions in the world. Habermas' TCA is complex, involving a number of different concepts and overlapping with some of his other works on KCI and the public sphere; I have already discussed the former above and will touch on Habermas' work on the public sphere, only with reference to this study.

Forms of 'action' and the three worlds

Communicative action is interaction mediated through talk and oriented towards agreement of a plan of action (Greenhalgh, Robb, & Scambler, 2006). Habermas describes four forms or models of action: teleological or goal oriented (with strategic action as a subset); normatively-regulated; dramaturgical; and communicative (Mitrovic, 1999). Teleological action involves making decisions based upon the rational notion of doing certain things to achieve certain ends; in normatively-regulated action, agents in a social group are pursuing common values and norms of the group, so that their behaviours are similar and agreed upon by the group; and in dramaturgical action,

an agent interacts with the 'public' or 'audience' and evokes a certain image or impression of themselves (Bolton, 2005; Outhwaite, 1994; Stewart, 2007). Holmes (1992, p. 947) contends that dramaturgy can be a means of emancipation, highlighting "...the tragedy, gravity and splendour of human life, the unity and continuity of the Self, the importance of genuineness and the pursuit of the realization of the best potentials of self and others". Habermas describes strategic action as doing something to achieve a certain end (as with teleological) that involves getting other people to do things (Finlayson, 2005). Strategic action is oriented to success (what might be called ulterior motive) rather than to understanding (Greenhalgh, et al., 2006). Popper and Habermas (as cited in Holub, 1991) propose that in practice we use these types of actions simultaneously in three different worlds; the subjective world, the objective world and the normative world.

The objective world (or external world) refers to states of affairs and objects, for example, 'the Prime Minister of Australia is a woman'. The subjective world (or internal world) refers to ideas, thoughts and emotions; for example 'I am really pleased that Australia has a female Prime Minister', and the final world is the normative world, which refers to intersubjectively determined by norms and values. An example here would be, 'it is not right to judge a person's ability to do a job on their gender' (Holub, 1991; Stewart, 2007). Habermas claims that every statement a person makes relates to these three worlds and in turn these relationships imply validity claims (as cited in Holub, 1991).

Validity claims

According to Habermas, speech or language is used to coordinate human actions and when people use language to justify their deeds and actions to others, on the basis of good reason, they constitute 'validity claims'. Validity claims have a rational status because they are connected with good reasons (Finlayson, 2005). Habermas argues that any sincere speech-act makes three different validity claims: a validity claim to truth (true or not true); a validity claim to rightness (appropriate or inappropriate, justifiable or unjustifiable); and a validity claim to truthfulness (sincere or not sincere, authentic or not authentic) (Finlayson, 2005; Forester, 1992; Greenhalgh, et al., 2006). To illustrate this distinction, an example has been amended from Anderson (1999): As a teacher, I say to a student "You should try not to pick up a shift on the weekend, as you have a lot

of assignments due". The student could deny the truth of what I said: "No I don't have a lot of assignments due". The student could deny the appropriateness or rightness of me advising them not to accept any shifts: "You have no business deciding how much time I need to complete my assignments and whether or not I should accept a shift"; and the student could deny my sincerity or truthfulness: "She doesn't want me to accept a shift because she wants the extra work herself".

Lifeworld, system and the colonisation of the lifeworld

Lifeworld and system are the respective homes of communicative and strategic action. Lifeworld is a concept of everyday life where individuals interact and socialise with each other in informal and unmarketed domains of social life, such as with household members and is generally conducive to autonomy (Finlayson, 2005). Habermas recognised three key elements of the lifeworld: culture, society and person – "which are 'made possible' by three enduring and interacting sets of processes – cultural reproduction, social integration and socialization" (Kemmis, 2006, p. 97).

The system (which is developed out of the lifeworld) comprises economy and state with each being divided into two different subsystems; money (economy) and power (state) (Finlayson, 2005; Greenhalgh, et al., 2006; Habermas, 1984; Outhwaite, 1994). Habermas acknowledges the contributions of the system to social life, but warns of the dangers with instrumental (strategic) action, which is not related to understanding or consensus, leading to commodification (money) and bureaucratisation (power) (Finlayson, 2005; Greenhalgh, et al., 2006; Mitrovic, 1999).

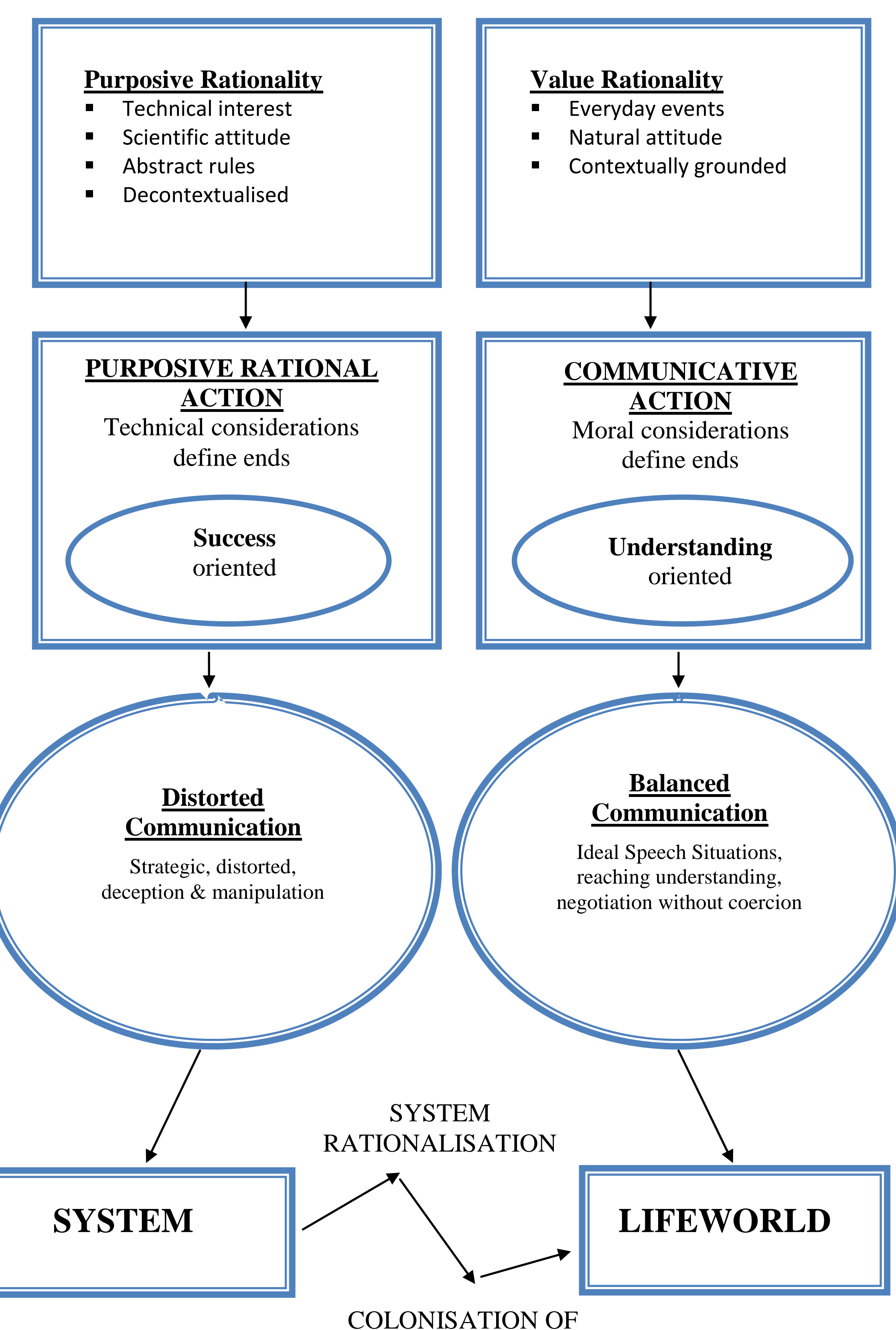
When economy and state (money and power) intrude in inappropriate and unacceptable ways into lifeworld they can be said to colonise it (Greenhalgh, et al., 2006; Habermas, 1987; Mitrovic, 1999). Habermas argues that colonisation of the lifeworld causes instability and fragility of the lifeworld (Finlayson, 2005). Pathologies resulting from the colonisation of the lifeworld include:

> decrease in shared meanings and mutual understanding (anomie); erosion of social bonds (disintegration); increase in people's feelings of helplessness and lack of belonging (alienation); consequent unwillingness to take responsibility for their actions and for social phenomena (demoralization); destabilization and breakdown in social order (social instability). (Finlayson, 2005, p. 57)

The Australian health system is a classic example of lifeworld and system ‘tug-of-war’. This will be a subject of discussion later in the thesis. Figure 3.2 is a diagrammatic representation of Habermas’ TCA.

Habermas’ (1984) TCA proposes that in society today there is a struggle between two types of rationality (purposive and value), which in turn produces two different types of worlds. One is the ‘lifeworld’ where value-based rationality informs dialogue and communication and the other is the ‘system’, in which purposive rationality guides communication. As depicted in Figure 3.2, communicative action is oriented towards mutual understanding through rational and explicit communication. These conversations are about everyday occurrences and are contextually grounded. As illustrated by the diagram, moral considerations define ends in communicative action. It is assumed that a rational person would take into account someone’s emotions and the humanity of a decision before agreeing. For example, a hospital rules that babies born 24-28 weeks gestation will not be provided with any extraordinary resuscitation measures because of the financial burden to the hospital, and instead the money saved would be re-directed to saving full term babies or young children. Technically, this may be considered a rational argument. However, Habermas would argue that this is not a rational argument because it ignores the humanity of people/person. Conversely, distorted communication is born out of purposive rationality where technical interests and a scientific worldview drive the communication towards a success oriented outcome. Manipulation and deception are often used in order to achieve success oriented outcomes opposed to negotiation without manipulation or coercion, which is used to achieve communicative action or balanced communication. As mentioned earlier, when the ‘system’ intrudes in inappropriate and unacceptable ways into the lifeworld it is said to colonise the lifeworld.

Figure 3.2 Habermas' TCA



Source: Adapted from (Barry, Stevenson, Britten, Barber, & Bradley, 2001, p. 488)

The ideal speech situation (ISS)

In TCA, Habermas refers to the ISS. The principles of an ISS are that: people leave their power at the door when entering a collaborative interaction; people take the phenomena being discussed seriously; and people stick to the facts and not let emotions take over (Carspecken, 1996). Ideal speech situations are motivated towards a desire for consensus (about truth statements and validity of norms), not compliance. Bernstein recommended (1995) that three central elements must be present for ISS to occur. Firstly, there must be equal rights of discourse; to satisfy this requirement I had to ensure that all PARG members were able to voice their views on all aspects of the research. Secondly, there must be an absence of role privileges; as before I had to ensure that all members of the group shared the same status during group meetings, and finally, freedom from coercion and constraint. When all constraints (status, power, authority) are lifted Habermas believes that good faith discourse between individuals will allow them to reach a consensus about truth and the validity of norms (Crotty, 1998; Stickle, n.d.). The methodology of PAR fits nicely with providing the opportunity for ISS to occur. Further discussion on how this process (ISS) was facilitated is provided in chapter four.

Public sphere

This is the final Habermasian concept to be discussed. " 'The public sphere' denotes a space, real or virtual, in which individuals, who otherwise live private lives and have their own private concerns, come together to discuss issues of common concern with the purpose of thrashing out their different views and arriving at a common position" (Crossley, 2005, pp. 227-228). Habermas first released his writings on the topic of public spheres in Germany in the 1960s. In 1989 his writings on public spheres was published in English; the book was titled *The Structural Transformation of the Public Sphere* (Holub, 1991). Habermas' writings on public spheres were extremely influential receiving both affirmative and negative comments from most German scholars of the day; few ignored entering into the debate on the topic (Holub, 1991).

I believe that PARG meetings can be classified as a public sphere. In the same way that coffeehouses became a place where individuals could enter into relationships with one another without the restrictions of family, society or the state (Norberg, 2007), so too did the PARG use the meetings to discuss and understand the differing views of each

member and arrive at a common goal. Individuals (midwives, obstetricians, emergency nurses, emergency doctors and a nursing/midwifery academic) came together to discuss their concerns on how pregnant women were being managed in the ED and ways that current protocols could be improved. Often different views were expressed and lively discussion ensured until a common position was held by members of the group. "Rational discourse that is free from both domination and linguistic pathology, and orientated towards intersubjective understanding and consensus is precisely the type of activity appropriate to the public sphere" (Holub, 1991, p. 8).

Methodology: Action research (AR)/participatory action research (PAR)

"*A thought which does not result in an action is nothing much, and an action which does not proceed from a thought is nothing at all.*" – Georges Bernanos.

(O'Leary, 2005, p.189)

This study was conducted using AR/PAR as the methodology. The study involved working collaboratively with clinical colleagues at a large regional hospital to bring about a change to practice in order to improve the care pregnant women received when they attended the ED. Action research is becoming more widely used in nursing and midwifery research (Chien, 2007; Corbett, Francis, & Chapman, 2007; de Koning & Martin, 1996; Deery, 2003, 2005; Deery & Kirkham, 2000; Fournier, Mill, Kipp, & Walusimbi, 2007; Gates, et al., 2011; Glasson, et al., 2006; Glasson, Chang, & Bidewell, 2008; Heslop, Elsom, & Parker, 2000; Hunt, 1987; Jenkins, et al., 2005; Lindsey, Sheilds, & Stajduhar, 1999; MacLaren, 2006; Meyer, 2000; Price & Johnson, 2005; Taylor, 2001; Taylor, Edwards, Holroyd, Unwin, & Rowley, 2005; Whitehead, Taket, & Smith, 2003; Zuber-Skerrit & Fletcher, 2007) and as Greenwood asserts:

> this is to be welcomed as it reflects a recognition, on behalf of the nursing research community, that nursing is a social practice the central purpose of which is to bring about positive change in the health status of individuals and communities. (1994, p. 13)

This study is an example of PAR. The PARG was comprised of midwives, nurses and doctors (workers) working together with the aim of improving the situation through

critical reflection and improved understanding. The PARG orchestrated how the research would be developed, after I did the initial reconnaissance, analysed the data, agreed on the changes to implement and formulated the evaluation strategies to use. A collaborative approach is the most favourable when dealing with clinical research problems, to ensure that accurate and sustainable strategies are developed and implemented. Participatory action research involves the participants in the design, data collection and evaluation stages of the research, making it more sensitive to the interests of the participants and ultimately the service users (Johnson, 2003). A detailed account of the process is given in the next chapter.

Definition

"Research that produces nothing but books will not suffice" (Lewin, 1946, p. 35). As earlier mentioned, AR will be used to explore this problem. According to Kemmis and McTaggart:

> Action research is a form of collective self-reflective enquiry undertaken by participants in social situations in order to improve the rationality and justice of their own social or educational practices, as well as their understanding of these practices and the situations in which these practices are carried out. (1988, p. 5)

Put simply, AR is "learning by doing" - a group of people identify a problem, do something to resolve it, see how successful their efforts were, and if not satisfied, try again (O'Brien, 2001). O'Brien purports that while this is the essence of the approach, it is different to everyday problem solving activities because the emphasis is on scientific study whereby the researcher studies the problem systematically and ensures the intervention is informed by theoretical considerations. "Much of the researcher's time is spent on refining the methodological tools to suit the exigencies of the situation, and on collecting, analysing, and presenting data on an ongoing, cyclical basis" (O'Brien, 2001, p. 1). Stringer (2007) claims that unlike experimental research, AR focuses on specific contexts with the aim of identifying localised solutions opposed to providing generalised explanations for all contexts.

Kemmis and McTaggart (1988) and O'Leary (2005) discuss certain aspects which are fundamental to AR. They argue that: AR is a group activity which is participatory; the

research topic generally arises out of concerns shared by a group of people and involves real world issues; there is a desire among the group to improve ‘things’; the group will describe their concerns, explore what others think, and probe to find what it might be possible to do; the group plans action together, acts and observes self and each other; and, the group critically reflects together and reformulates plans if needed.

Origins of AR

Action research has its origins in the work of German social psychologist Kurt Lewin who is generally considered the father of AR (Greenwood & Levin, 1999; Kemmis & McTaggart, 1988). Two concepts that were crucial to Lewin’s work were the ideas of group activity and having a commitment to change (Kemmis & McTaggart, 1988). Lewin first coined the term ‘action research’ in 1946 characterising AR as “a comparative research on the conditions and effects of various forms of social action and research leading to social action”, using a process of “a spiral of steps, each of which is composed of a circle of planning, action, and fact-finding about the result of the action” (O'Brien, 2001, p. 4). There has been some criticism of Lewin’s work, suggesting that his desire for collaboration and democracy were in an effort to gain cooperation from workers rather than as a key principle for social action and his recommendations for change did little to address the oppressive conditions faced by workers (Adelman, 1993; Carr & Kemmis, 1986a). However, most AR writers have found his writings highly influential and useful in resolving organisational problems (Argyris, Putnam, & Smith, 1985; Hart & Bond, 1995; Whyte, 1991).

In Australia, AR has a strong history in education and improving curriculum (McNiff & Whitehead, 2006; Reason & Bradbury, 2006), but in more recent times is being used by groups of practitioners who have a desire to improve their lives and those of others by bringing about positive change to a situation. This methodology is ideally suited to the health professions. In critical AR in healthcare the “critical health professional” exposes the assumptions of existing research orientations, critiques of the knowledge base, and through these critiques reveals ideological effects on nurses, doctors, midwives, hospitals and the culture’s view of health care (Kincheloe, 1991).

Principles of AR

Winter (as cited in O'Brien, 2001) describes six key principles of AR. They are: reflexive critique; dialectical critique; collaborative resource; risk; plural structure; and theory, practice, transformation. I utilised these six principles to guide my conduct throughout the research process and will give examples that reflect the use of these principles throughout the thesis. Below is a definition of each principle.

1. Reflexive critique

An account of a situation, such as notes, transcripts or official documents, will make implicit claims to be authoritative, i.e., it implies that it is factual and true. Truth in a social setting, however, is relative to the teller. The principle of reflective critique ensures people reflect on issues and processes and make explicit the interpretations, biases, assumptions and concerns upon which judgments are made. In this way, practical accounts can give rise to theoretical considerations.

2. Dialectical critique

Reality, particularly social reality, is consensually validated, which is to say it is shared through language. Phenomena are conceptualized in dialogue, therefore a dialectical critique is required to understand the set of relationships both between the phenomenon and its context, and between the elements constituting the phenomenon. The key elements to focus attention on are those constituent elements that are unstable, or in opposition to one another. These are the ones that are most likely to create changes.

3. Collaborative resource

Participants in an action research project are co-researchers. The principle of collaborative resource presupposes that each person's ideas are equally significant as potential resources for creating interpretive categories of analysis, negotiated among the participants. It strives to avoid the skewing of credibility stemming from the prior status of an idea-holder. It especially makes possible the insights gleaned from noting the contradictions both between many viewpoints and within a single viewpoint.

4. Risk

The change process potentially threatens all previously established ways of doing things, thus creating psychic fears among the practitioners. One of the more prominent fears comes from the risk to ego stemming from open discussion of one's interpretations, ideas, and judgments. Initiators of action research will use this principle to allay others' fears and invite participation by pointing out that they, too, will be subject to the same process, and that whatever the outcome, learning will take place.

5. Plural structure

The nature of the research embodies a multiplicity of views, commentaries and critiques, leading to multiple possible actions and interpretations. This plural structure of inquiry requires a plural text for reporting. This means that there will be many accounts made explicit, with commentaries on their contradictions, and a range of options for action presented. A report, therefore, acts as a support for ongoing discussion among collaborators, rather than a final conclusion of fact.

6. Theory, practice, transformation

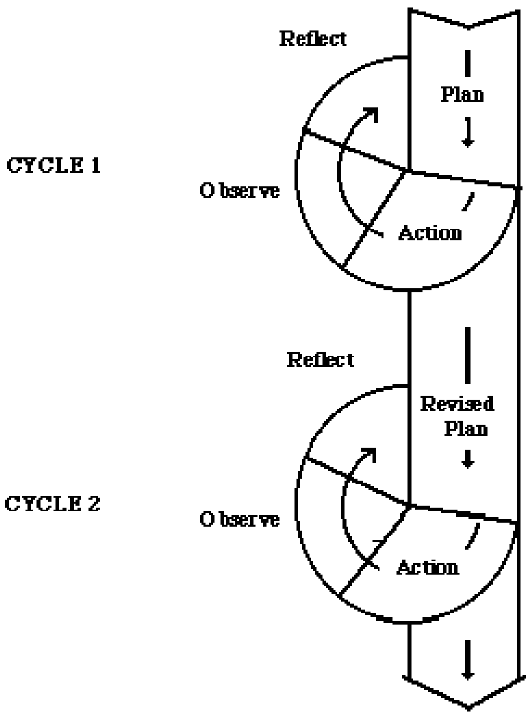
For action researchers, theory informs practice, practice refines theory, in a continuous transformation. In any setting, people's actions are based on implicitly held assumptions, theories and hypotheses, and with every observed result, theoretical knowledge is enhanced. The two are intertwined aspects of a single change process. It is up to the researchers to make explicit the theoretical justifications for the actions, and to question the basis of those justifications. The ensuing practical applications that follow are subjected to further analysis, in a transformative cycle that continuously alternates emphasis between theory and practice.

The AR process

Kemmis (Kemmis & McTaggart, 1988) developed a simple model of the cyclical nature of the typical AR process which is depicted in Figure 3.3. Each cycle has four steps: plan, act, observe, and reflect. As mentioned earlier this mimics the nursing process,

which is familiar to nurses and midwives. Within the planning step of the cycle I also included an initial reconnaissance of the situation; this is depicted in Figure 3.4, phase one, 'what is the problem?'. Reconnaissance is widely considered an important component of AR projects (Reason & Bradbury, 2006).

Figure 3.3 Simple AR model



Source: Maclsaac 1995 as cited in (O'Brien, 2001, p. 2)

Action research will often start with a 'fuzzy' question because the researcher and the participants are more likely to achieve their action outcomes if they take the needs and wishes of each other into consideration (Dick, 2004). Therefore it is hard to know the exact questions until the researcher has commenced the research and gathered preliminary data about the nature of the problem. I constructed four preliminary questions, more to appease university processes and ethics boards, but was aware that they would change/evolve as the research proceeded and my and the PARG's understanding and knowledge of the situation developed. The questions are restated below for easy reference.

1. What is/are the current problem/s with the triage and management of pregnant women in the ED? Why does this problem exist?

2. How can the situation be improved?
3. How effective is the plan that has been developed and actioned in improving the situation for pregnant women who present to the ED?
4. How do I, as the AR facilitator, support co-researchers/ participants to find solutions and generate practice knowledge?

In summary, a key purpose of AR is to produce practical knowledge which is useful to people in their everyday conduct of their lives (Reason & Bradbury, 2006). It is about working towards practical outcomes and creating new forms of understanding that will improve the situation for themselves and the greater community (Reason & Bradbury, 2006; Richardson-Tench, Taylor, Kermode, & Roberts, 2011; Todd, 2002). AR has been chosen because a change of practice is being sought. “The purpose of action research is to work towards change, not merely to describe a current situation” (Winter & Munn-Giddings, 2001,p. 18). For a change of practice to occur, people who are involved in the change need to feel ownership over the decision to change and be committed to change; AR does precisely that (Dick, 2004).

The cyclic nature of AR (i.e. reflection, planning, action, observation and further reflection) lends itself to clinically situated problems and seeks to bring together action and reflection, theory and practice, in participation with others, in the pursuit of practical solutions to problems (Reason & Bradbury, 2006). Furthermore, AR will allow a diverse group of health professionals (midwives, obstetricians, emergency nurses and emergency doctors) to negotiate their various agendas in an atmosphere of trust and collegiality (Stringer, 1996; Wadsworth, 1998). Providing an opportunity where different perspectives can be shared can transform the way the individual sees it through their own lens. Osmond et al. (2012, p. 5) claim “it is the differences among fields that most reveal their similarities”. Action research will enable a continuous process of reviewing, reflecting and reacting (Kember & Kelly, 1994) to meet the needs of the maternity health services, the emergency health services and most importantly pregnant women. The benefit of employing this method is that all participants will be involved in an ongoing cycle of reflection and evaluation that will lead to group decision making and a desired change or action (Minichiello, et al., 1999).

Role of the action researcher

Upon invitation into a domain (hospital research site), the outside researcher's role is to implement the AR method in such a manner as to produce a mutually agreeable outcome for all participants, with the process being maintained by them afterwards (Koch, et al., 2005). To accomplish this, I needed to adopt various roles and employ many skills (Rice & Ezzy, 1999) at various stages of the process, including those of: planner, facilitator, observer, teacher, leader, advocator, reporter and listener. My main role, however, was to nurture members of the PARG and local leaders to the point where they could take responsibility for the process upon conclusion of my study.

There are a variety of ways that researchers can be involved in the research process. Similar to the terminology used in the nursing process, Loeb et al. (2008) describe three levels of participation; independent (researcher conducts the research project alone), interdependent (researcher works collaboratively with other researchers) and dependent (researcher works for another researcher on their project, for example as a data collector). The interdependent level was the one that aligned to my own objectives. Being involved in the research development and personal growth of members of the PARG was important to me, but I also had to balance this with my own personal objective of completing the study and submitting a PhD. I also wanted to feel a part of a collaborative process that led to useful change; a sentiment shared by participatory action researchers (Gibbon, 2002). According to some commentators (Ceglowski, 1997; Ulichny, 1997), others have described the difficulties that researchers can have in reconciling their own research interests with others involved in the research. While we all shared the common research interest of improving ED care for pregnant women, we did ultimately also have our own personal agendas.

My personal agenda included completing a PhD and producing a thesis, while another member of the group was required to undertake research within her clinical role and became a member of the PARG in order to fulfil this requirement of her employment. Regardless of individuals' personal agendas, we all collectively wanted to improve the triage and management of pregnant women when they presented to the ED, which led to the group being dynamic and productive.

Preparation of facilitator/researcher

Richardson-Tench et al. (2011) assert that if the research problem is to be addressed adequately the researcher must have the appropriate skills and experience to conduct the research. A previously mentioned there is a wide range of skills required to conduct PAR. Reason (1994, p. 335) lists the following skills as important in participatory research:

- Personal skills of self-awareness and self-reflexiveness;
- Facilitative skills in interpersonal and group settings;
- Political skills;
- Intellectual skills;
- Data management skills.

Some researchers may find these skills beyond their limited resources of time, money and energy, but Rice and Ezzy (1999) believe that if the researcher is committed to the methodology and has patience, these obstacles can be overcome, and this is surely evident in the fact that so many high quality AR studies have been conducted across so many disciplines and in so many different settings.

When using AR the facilitator or researcher's communication skills are paramount to the success of the research. Language is very important in AR so that the process remains in the participants' control and not perceived as the researcher taking over what is, after all, their 'home territory'. Setting ground rules for the group from the outset was essential. Habermas' TCA helped establish conditions for ISS to occur. As earlier defined, the principles of an ISS are that: people leave their power at the door when entering a collaborative interaction; people take the phenomena being discussed seriously; and, people stick to the facts and not let emotions take over (Carspecken, 1996). Establishing these ground rules is the researcher's responsibility. As the researcher, I drew on my previous experience to assist me to establish an environment that was conducive to facilitating free speech and information sharing. My experience in teaching effective communication skills and establishing and facilitating groups in my role as an academic was useful and gave me much needed confidence during the first PARG meeting. Furthermore, it has to be acknowledged that in my role as a Registered Nurse and Midwife I have over 20 years of personal experience interacting with

patients, families and staff in a compassionate, sensitive, understanding and reflective manner. These life skills were important throughout the entire research journey.

Governance of the researcher's role

As a PhD student I have had two supervisors that I met with regularly, guiding me and advising me throughout the study. My supervisors provided me with support, guidance and expert advice to assist me during this journey of study and learning. The university processes also offered governance and support through yearly reporting, confirmation seminars, pre-completion seminars and attendances at compulsory seminars on ethics and further research topics. An ethics research monitor was appointed by the hospital research site, and we met on a number of occasions to discuss the progress of my research and to clarify any ethical concerns. All of these processes ensured that a high standard was achieved and maintained throughout the research study.

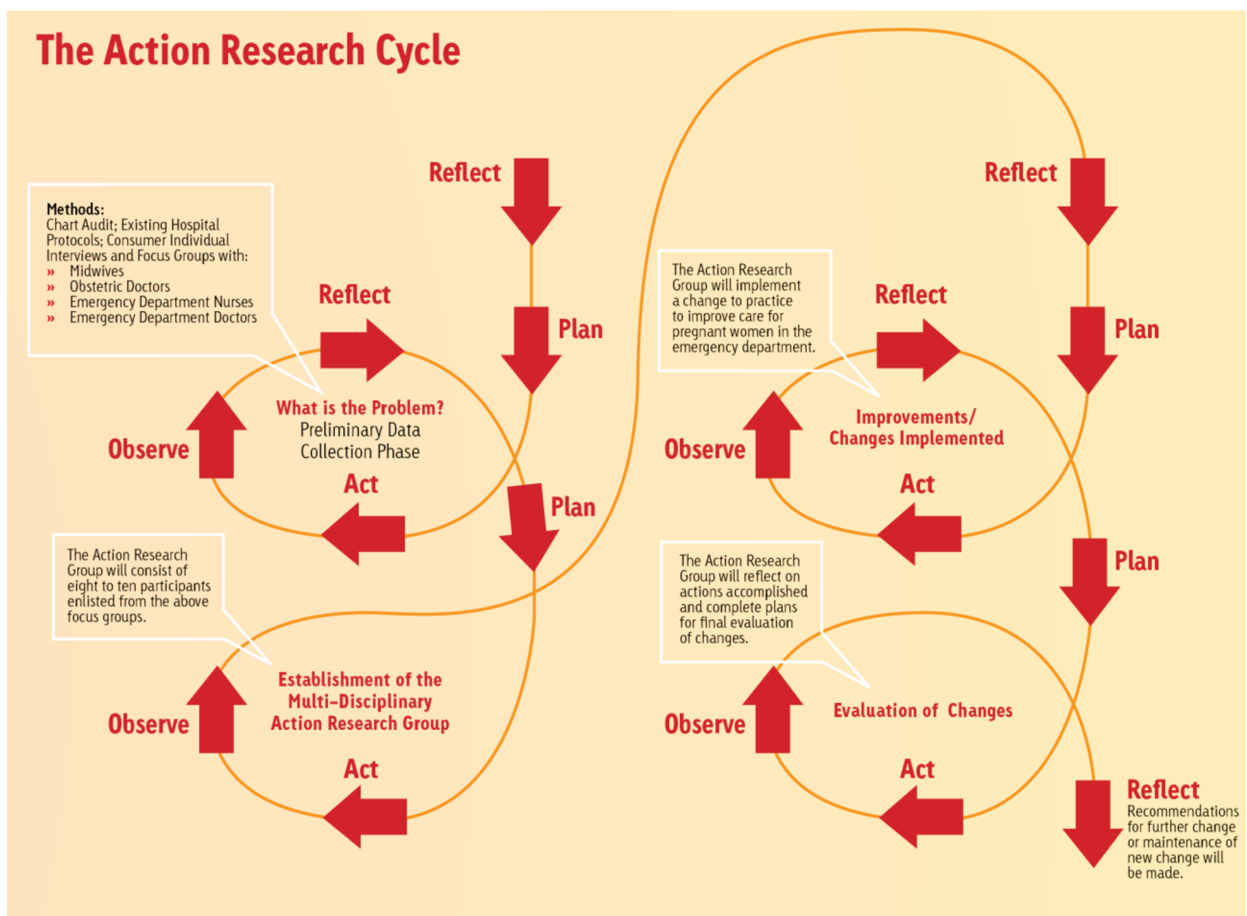
In addition to this, though, it was important to have supervision of my role as a facilitator of the PARG. Even though I had experience with group facilitation and effective communication in my role as an academic and clinician, I had minimal experience with utilising these skills in a research capacity. As a new facilitator of AR the opportunity to critique myself in this role provided me with a greater understanding of what worked well or what did not. Being able to examine my own critical reflections with a colleague, who understood the process of AR, helped me evaluate and improve upon my role as facilitator of AR. This data of personal reflection and critique has been valuable to me as a researcher and some of my reflections will be incorporated into the concluding chapter.

Study design and methods

This study was designed to follow the simple AR cycle of planning, action, observation and reflection. The study was organised into four distinct cycles which are depicted in Figure 3.4 below. Each major cycle represents a phase of the research study and within each phase there were multiple AR cycles that took place simultaneously throughout the

study. Each phase of the study will be outlined below and discussed in greater detail in chapter four.

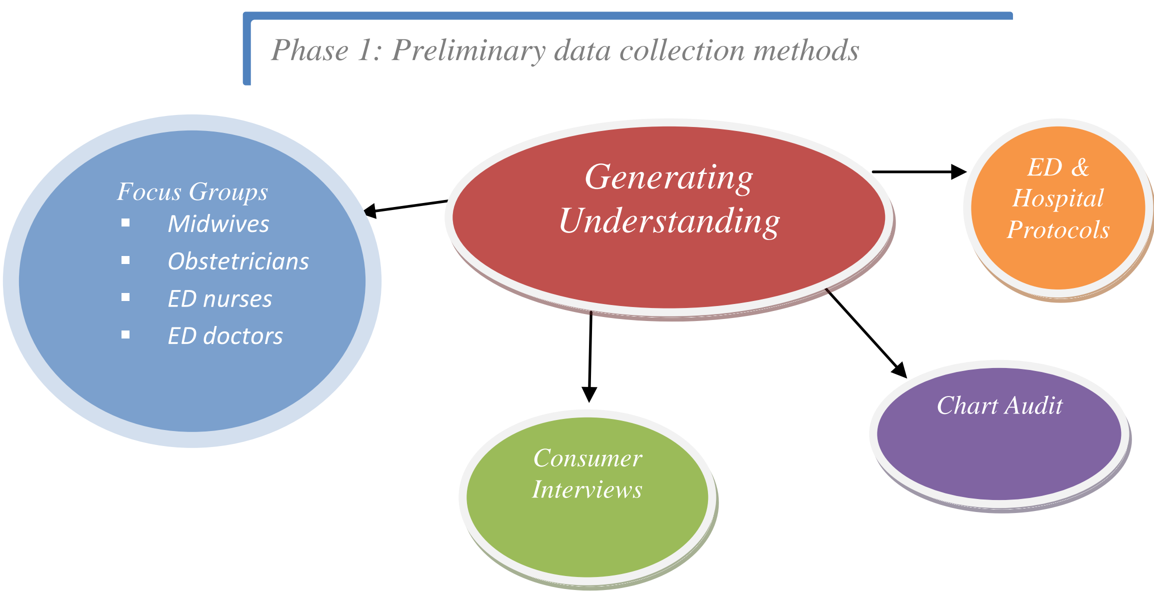
Figure 3.4 Study design



Phase 1: Preliminary data collection

Phase one of the study was to establish the status quo and generate a greater understanding of the problem. A reconnaissance of the research topic was conducted using a number of methods to collect preliminary data (see Figure 3.5). These methods included: conducting focus groups with key hospital personnel; conducting interviews with women who had attended the ED for care during their pregnancy; reviewing existing ED and hospital protocols that were relevant to the research problem; and, conducting a chart audit. Each of these data collection methods will be briefly outlined below and further expanded upon in chapter four on the conduct of the research.

Figure 3.5 Phase 1- preliminary data collection



Initial focus groups

A focus group is a form of qualitative research in which a group of people can discuss a common problem or issue. Focus groups using nominal group techniques (Freeman, 2006; Gallagher, Hares, Spencer, Bradshaw, & Webb, 1993; Van de Ven & Delbecq, 1972) were conducted with staff from the ED and maternity areas to help generate understanding and knowledge about the topic area. Data obtained from the focus groups was later used as discussion triggers for the PARG meetings.

Interviews with women who had attended the ED while pregnant

Anecdotal evidence was given by clinicians that demonstrated inconsistent management of pregnant women in the ED. To explore this further, and as a way of confirming whether the anecdotal reports are consistent with the experience of pregnant women, women who had attended the ED while pregnant were interviewed to get a firsthand account of their experiences. The data obtained from these interviews was *not* used as an indication of quality of care received. The data was used to increase credibility for the rationale for undertaking the research and to demonstrate the significance of the problem.

The ED hospital protocols

All ED protocols were requested and specifically reviewed to elicit information about triaging and management of pregnant women. Two main protocols were reviewed; firstly a medical protocol that outlined the management of pregnant women who presented with bleeding in early pregnancy; and secondly was the hospital policy on when to transfer a pregnant woman to the birth suite from the ED. The information drawn from the ED protocols helped generate understanding and knowledge about the topic area and was used as discussion triggers for the PARG.

Chart audit

A retrospective chart audit of pregnant women presenting to the ED was conducted for the month of August 2008. Charts were requested for the one month period prior to the researcher entering the hospital site to reduce the risk of ED staff documenting differently due to the researcher's presence. The data from the chart audit provided another preliminary data set that contributed to generating understanding and knowledge about the topic area.

Phase 2: Establishment of the PARG

Representatives from each focus group were invited to express interest in becoming a member of the PARG. A multi-disciplinary PARG allowed the problem to be explored and assessed from the perspectives of nurses, doctors and midwives involved in the care of pregnant women in the ED. Changing practice or shifting away from 'the way things are always done' is not an easy task. It was critical that the PARG members were a strong group of participants who had a desire for change and a vision for how this change could be achieved. Preliminary data that was gathered in phase one of the study was introduced to the PARG in the first meeting and served as trigger points for discussion. The PARG met regularly over the course of the research.

Phase 3: Implementation of 'change to practice'

Over the course of the research, the PARG agreed on and instigated a number of changes to practice. The changes were evaluated by the PARG to determine if the 'change' had improved care for pregnant women in the ED. During the implementation phase the PARG continued to discuss the identified areas of concern and to critically reflect on how the 'change to practice' was being operationalised. From evaluation feedback, the PARG determined if any refinements or further plans needed to be made.

Phase 4: Evaluation of 'change to practice'

At the completion of the implementation phase the PARG met to reflect on actions accomplished and completed plans for a final evaluation of the 'changes to practice' and also their own reflections on the PAR process. Evaluation data was used by the group to make recommendations for further change or maintenance of the new strategy.

Analysis of the data

Polit and Beck (2010, p. 463) state "the purpose of data analysis, regardless of the type of data or underlying research tradition, is to organise, provide structure to, and elicit meaning from the data". Meaning can be elicited by asking: who, what, when, how and why; looking at the use of language and what it means; making comparisons between one sentence and another in different transcripts; looking at emotions, experiences and events that are being described; using conceptual labels or themes; and by asking about cultural beliefs, assumptions and individual beliefs.

Throughout each stage of the research process, a critical theory standpoint informed the analysis. This means that we tried to make sense of each phenomena and how they were shaped culturally, socially and historically within the organisation. We examined current actions and the nature of consequences of those actions, who benefited from them and who did not. All of this was done with the aim of transforming situations to overcome dissatisfaction and to optimise care. Data analysis occurred simultaneously with data collection in line with a cyclic and continuous PAR approach. As new

information came to light it was relayed to the PARG for discussion and validation. Dick (2004, 2006) asserts that this adds rigour because of clarifying and re-clarifying of the data. PAR, as the name implies, means that the analysis was completed by the PARG. Close attention was paid to what phenomena the group members considered important and meaningful to them. Analysis of the data was also attended to individually and individual interpretations were brought to the group for further discussion. Schneider, Whitehead, Elliott, Lobiondo-Wood and Haber (2007) puts forward a point of view that multiple perspectives are more likely to lead to group consensus about what is relevant in data and how to conceptualise those relevant aspects. It is assumed that this will, in some way, either be more 'accurate' or a 'more rich construction'. Where a single reality does emerge from a team of researchers, this can assist in claiming that consensus has been reached and trustworthiness achieved.

Sophisticated software programs now exist to assist with data analysis (Creswell, 2007), but I preferred to personally transcribe and analyse the six interview transcripts as it afforded me the opportunity to learn the skill of eliciting themes as well as benefiting from knowing the data well. As a novice researcher this was an important skill to learn during the course of my PhD study.

Rigour

The cyclic nature of AR adds rigour (Dick, 2004). The information and interpretation gained from earlier cycles can be challenged in later cycles to refine the participant's understanding of the situation that they are studying (Dick, 2004). Undergoing this process of clarification and re-clarification helped the PARG ensure that the information was being correctly interpreted and understood. Guba and Lincoln (2005) support credibility, transferability and dependability as the three major criteria upon which qualitative research should stand. To ensure credibility, the following measures were instigated:

- A reconnaissance phase was built into the research design of the study to gather information prior to commencing the PARG;
- The principal researcher had prolonged engagement with the PARG;

- Member checks were conducted with women who were interviewed for the study;
- The principal researcher exercised control over the PARG membership, in respect to the individual members needing to have detailed firsthand knowledge of the problem and have a shared aim of working collaboratively with other members to help improve the situation;
- The principal researcher had regular contact with key stakeholders (Managers and Directors) to keep them informed of the progress; and
- The principal researcher presented the data and findings though presentations to the hospital and at local and national conferences.

Strauss and Corbin (1990) argue that the findings are the key feature for demonstrating transferability as well as credibility. I have provided contextual information about the hospital ED setting and the reasons why pregnant women attend the ED for care, as well as detailed, rich descriptions of the data (excerpts from transcripts) so that the reader can easily determine if the results are transferable to their setting. Dependability can be measured by: the collection of data over a long period of time and thorough documentation kept; the keeping of audio recordings of the PARG meetings and the interviews with women to ensure accuracy; and having all members of PARG engaged in the analysis served as a cross-checking exercise, eliciting further points of interest that may have been overlooked by another PARG member. My aim has been to demonstrate rigour throughout this thesis.

Ethics

Ethical approval for this study was gained both from the Health Service District Ethics Committee for the hospital research site and the James Cook University Human Ethics Committee. The James Cook University protocol at the time allowed for the Australian National Ethics Application Form (NEAF) document to be assessed by the Health Service District Ethics Committee (i.e. both of the ethics committees did not have to assess the application), provided that they received a copy of all correspondence relating to the application. Once approval was granted by the Health Service District Ethics

Committee, the James Cook University Human Ethics Committee considered the submission and also granted ethical approval.

At all times, informed consent was obtained, based on the principles of human dignity, autonomy, confidentiality and safety. As a nurse and midwife, I found myself instinctively caring and protecting participants from harm and ensuring that they felt comfortable and safe to disclose information to me. My nursing background made it easy to develop rapport with participants which made participants feel safe to disclose truthful information to me.

Conclusion

This chapter has presented my worldview as being advocacy/participatory/emancipatory in essence, highlighting the importance of collaborative, honest and respectful communication, especially if one wishes to truly understand the phenomena of interest and discover new ways to improve the situation. The theoretical framework of critical theory and in particular Habermas' Theory of KCI and TCA, has been chosen to help analyse and understand this PAR study that has been designed to bring about a change to practice to improve the care pregnant women receive when they attend the ED. The four phase study design included an eclectic array of methods ranging from individual interviews, chart audit, focus groups using nominal group technique, hospital polices and protocols and the establishment of a PARG. The next chapter expands on the research design and gives a detailed account of the conduct of the research.

CHAPTER 4: CONDUCT OF RESEARCH

"Would you tell me, please, which way I ought to go from here?"
"That depends a good deal on where you want to get to" said the Cat.
"I don't much care where" said Alice.
"Then it doesn't matter which way you go," said the Cat.
"...so long as I get SOMEWHERE," Alice added as an explanation.
"Oh, you're sure to do that," said the Cat, "if you only walk long enough."
(Lewis Carroll, Alice's Adventures in Wonderland)

Introduction

From the outset, my aspiration was to undertake research that would not only develop knowledge but also help provide practical solutions to real clinical problems. I wanted to work *with* clinical colleagues to achieve the aims of increased knowledge and change, which is why participatory action research (PAR) was chosen as the most appropriate methodology. Participatory action research reflected my own philosophical views on how to go about 'doing' the research. Kurt Lewin described action research "as a tool for generating knowledge about a social system while at the same time attempting to change it" (Lewin, 1946, p. 34).

With reference to the above quote by Lewis Carroll, this chapter describes the path I took when undertaking the research. Furthermore, it highlights the methods adopted to undertake the research and shows how those methods are consistent with a PAR approach. The chapter has been divided into five stages and could be viewed as a framework that other researchers could follow if they wish to conduct a similar study to this one. The chapter is broken down into stages so that each phase of the study can be easily discussed and understood.

Stage 1: Pre-research preparation

Before enrolling in the PhD, I was the Midwifery Course Coordinator for the School of Nursing, Midwifery and Nutrition at James Cook University. This role involved

working collaboratively with midwifery clinical colleagues at a number of clinical facilities where student midwives undertook clinical placements. Because of this role, professional relationships and friendships were developed with a number of midwives at the hospital research site. Through the many conversations that took place, I became aware of everyday clinical problems that were happening within the hospital. A recurring issue that midwives found frustrating was the inconsistent triage and management of pregnant women in the Emergency Department (ED). Proctor and Renfrew (2000) believe that it is often difficult for busy clinicians to take a step back and question why certain practices exit. As an outsider, not affected by the busy demands of the clinical world, I was able to articulate this question, which then flowed into a robust discussion and expression of different viewpoints from midwives. A number of midwives expressed the view that research should be done in this area to improve the care of pregnant women when they are seen and treated in the ED.

As highlighted in the introduction, my experience both as an emergency nurse and midwife stimulated my interest in this research topic. Interestingly (or ironically), one of the main impetuses for completing my midwifery training was so that I could better care for pregnant women when they presented to the ED. I knew that my background in emergency nursing and midwifery would be great assets for a research topic of this nature.

Fortunately, I had established a number of relationships with staff working in the ED at this particular hospital. I had previously worked with the Clinical Nurse Consultant (CNC) Educator in the ED to ascertain the feasibility of the university offering a postgraduate certificate in emergency nursing. A good working relationship and rapport was developed during this time. Another connection was that I had worked, as a clinician, in this hospital's ED about 17 years earlier and knew a number of staff from that time. Because of these connections and familiarity with the department I felt comfortable contacting the CNC to discuss the issues that were raised by the midwives. The ED nurses to which I spoke at this time were obliging and open with their information. Hinkin, Holtom, and Klag (2007) discovered that if you had worked with a person previously and they knew you were a good person and easy to work with, they would be more inclined to help you with research.

Through these initial informal discussions with staff from both the midwifery area and the ED it was evident that both disciplines acknowledged a problem and felt that the management of pregnant women in the ED could be significantly improved. The exact nature of the problem was not understood by staff nor did they know what could be done about it, but all agreed that research would help improve practices in this area and were supportive of me working with staff from both areas to try and accomplish this.

Upon reflection, I can see how my natural instinct was to start this process in a collaborative, inclusive manner. I did not proceed to developing a research proposal based on initial utterances, but instead collaborated more widely to determine how this problem was perceived by others, and whether my assistance would be welcomed and accepted. This reflects my worldview, and how I normally operate in the world.

The new professional relationships developed, and the old relationships fostered, during the 'pre-research' stage were invaluable, not only at the beginning of the research but throughout the entire project. Later in the research process a number of these people attended the focus groups and some became members of the Participatory Action Research Group (PARG) that was subsequently established. Collaboration is an essential aspect of PAR (Kemmis & McTaggart, 2005; Koch & Kralik, 2006; McNiff & Whitehead, 2006; McTaggart, 1991; Reason & Bradbury, 2006) and it needs to be a part of the process from the beginning, the relationships developed need to be nurtured and respected, and above all the relationships need to be ongoing throughout the entire research process, and in this case beyond. Even though I have now 'exited' the field in the role as PhD student and facilitator of the PARG, I am still a colleague from the university who is very interested in continuing to assist clinical colleagues to improve care for pregnant women in the ED.

The next step was actually enrolling in a PhD and formalising a research proposal. I met with Professor Colin Holmes, who later became my principal supervisor upon confirmation of enrolment, to discuss the anticipated research topic. I recall sitting in Professor Holmes' office, restating what I had learnt from the clinicians about this topic and how they wanted to improve the situation and bring about positive change, and how I wanted to be a part of it. I clearly remember wanting to use 'phenomenology' as the research methodology. This was a methodology I knew about from tearoom

conversations with current PhD students and staff. The idea of understanding the 'lived experience' appealed to me; after all one of my aims was to have a greater understanding of the problem. Professor Holmes listened, agreed the research topic sounded promising, and suggested I read about action research. I had heard and knew a little about action research, as most of the projects at the hospital undertaken by level two clinical nurses were often referred to as action research projects. This was not what I had envisaged for a PhD research project. I took Professor Holmes' advice, albeit sceptically, and purchased the '*Handbook of Action Research*' by Peter Reason and Hilary Bradbury; a worthwhile decision for any action researcher. I realised very quickly that if I was to achieve my aim of collaboration, participation, an increase in understanding and knowledge, as well as a positive change to practice, action research was the most fitting methodology to use. In the end, it was not I who chose the methodology; it was the research itself that did. Following this revelation, and the subsequent formalisation of the research proposal, the next objective was to obtain ethical approval from the Health Service District Human Ethics Committee and the James Cook University Human Ethics Committee; however support from the hospital 'gatekeepers' needed to be sought first.

Although action research was the best way to investigate this problem, I did have a number of concerns about whether the research would be successful and the aims achieved because of the methodology itself. My primary concern was in gaining the support and cooperation of the gatekeepers and key people at the hospital research site. I was unsure if the different groups' political/personal/professional agendas were different to my own, and if so, how this would affect the research and outcomes. The other valid concern for me was that this type of participatory research takes considerable time and energy in the field and I wanted to ensure that I was going to be available to give the necessary time to do justice to the research and the participants, and still meet university milestones for a doctoral student. This is discussed later in the chapter, highlighting some of the strategies employed to manage the time issue.

Gaining support of 'gatekeepers' and access to research setting

Polit and Beck (2010, p. 78) recommend that before gaining access to a research site the researcher will usually need to consult with 'gatekeepers' who have the authority to

allow "entry into their world". Most ethics committees now request that letters of support are obtained from 'gatekeepers' and submitted with the ethics application. As a participatory action researcher obtaining support from the 'gatekeepers' and collaborating with them about the topic area was important in the process of conducting PAR. The aim from the beginning was to be transparent and collaborative so that experts in the topic area felt confident that this was a 'group' process and not just me as the researcher 'calling the shots'. It was vital from the beginning to ensure a collaborative and open approach was demonstrated and that clinicians knew I was there to work *with* them. I genuinely wanted their support and input from the start so that if changes were made, they would be collaborative and therefore more likely to be accepted and sustainable.

'Gatekeepers' in health care settings have a responsibility to protect potentially vulnerable people, be they patients or staff; this gives them some power and control over what research occurs in their facility (Holloway & Wheeler, 2002). As a participatory action researcher it was important to ensure that the 'gatekeepers' were aware of the research project, that they were happy to support the project and that they were aware of what role the principal researcher played (a collaborative one) in the research process.

Many years earlier I had worked for this organisation and knew the local language and understood the everyday practices with an 'emic' perspective, but now I was an outsider with an 'etic' perspective (Polit & Beck, 2010) to the organisation and did not want to be perceived as someone that would 'take over' and make changes that were not needed or wanted. To avoid this, a combination of activities was completed. These included: sending an abridged research proposal (2000 word document) to the key hospital personnel; writing a brief email introducing myself and providing a summary of the research project to the gatekeepers; and, offering to provide additional information or meet with the person to discuss the research further if required. The abridged research proposal contained all essential elements of the research design, along with a condensed literature review and methodology section. This was to reduce the amount of reading that busy hospital 'gatekeepers' would have to do, while still keeping them fully informed of the intentions of the research. Below is a list of the people (gatekeepers) that I communicated with at the hospital research site.

- Executive Director of Nursing
- Medical Director of the ED
- Midwifery Director of the Women's and Children's Institute
- Medical Director of Obstetrics and Gynaecology
- CNC – ED
- Nurse Unit Manager (NUM) – ED
- Midwifery Unit Manager – Birth suite
- Midwifery Unit Manager – Maternity Ward
- CNC – Midwife Educator
- Nurse Manager – Nursing Research

The Executive Director of Nursing replied by email stating that 'support in principle' was given for the project and wished me well with the project. The Executive Director of Nursing copied her response to the Director of the Institute of Women's and Children's, the Acting Director of the Institute of Women's and Children's that was soon to resume the role for a period of 12 months, and also the NUM of the ED. As a critical researcher, I appreciated the importance of the Executive Director of Nursing copying her email of support to key midwifery and nursing leaders in the organisation. By acknowledging her support for me and the project, she was sending a message that they also could and should. The Medical Director of the ED emailed me stating support for the research, as did the Acting NUM of the ED. All gatekeepers supported the project and were happy to offer their assistance and also offered to support and make staff available, albeit in their own time, if they volunteered to assist in the project.

At this time, I also met with the Director of Obstetrics and Gynaecology in his office to discuss the research. He voiced support for the research, but wanted to make sure obstetric doctors were represented in the research; this was excellent, as it was what I also wanted. A concern the Director shared with me was that changes would be made that may not be suitable to staff working in the Obstetrics and Gynaecology (O&G) department. He explicitly relayed the wish to maintain control over decisions that were being made about the management of pregnant women in the hospital (this was his area of responsibility), which concurs with Holloway and Wheeler's (2002) view that 'gatekeepers' feel responsible for protecting vulnerable people in their care and as such

have power and control over what research is supported or even conducted in their facility. Another explanation for his view, which I was anticipating as a nurse and midwife, is that historically the medical profession has often wielded considerable control and power over the nursing and midwifery professions (Ashley, 1976; Duffy, 1995; Turner, 1987; van Teijlingen, Lowis, McCaffery, & Porter, 2004; Willis, 1989) and the paternalist stance of medicine concerning patient care decisions is well documented (Campbell, Gillet, & Jones, 2005; McKinstry, 1992; Savulescu, 1995; Warren, 2011). I recall deciding at the time to reframe this as a positive interaction and not one that potentially could put boundaries around what the research could produce; no doubt my 'worldview' influenced the way I chose to view this. Therefore, I appreciated his viewpoint because it meant that he did take the time to read and understand the project (showed interest), that he did believe there was potential for change (which was the intent) and that he wanted his department to have a voice in the change process (collaborative); in summary the Director cared enough about the potential of the research to ensure that the O&G department were included and well represented in the research.

Before leaving the Director's office, I provided additional information about PAR to reinforce that the methodology used a multidisciplinary collaborative approach and that no changes would be made without the PARG first consulting and collaborating with their colleagues. The Director had never been involved in PAR before and found it a very different approach to the clinical research trials with which he was more familiar. Furthermore, he was invited to be a co-supervisor on my PhD supervisory team so that he could offer expert clinical guidance on the research topic. The benefit of this was to demonstrate that I wanted the process to be collaborative, inclusive and transparent. The Director willingly accepted this role and offered expert opinions as required. His role on the supervisory panel kept him informed of the progress of the research and ensured that his voice was heard.

Overall, I was pleased and optimistic with the initial show of support from the 'gatekeepers'. However, now when I revisit these beginning emails and conversations I recognise the system at play (as described by Habermas). For example the words, "support in principle" and "make available on a voluntary basis and in their own time," and the Director of Obstetric and Gynaecology's concern about "changes that would not

be in his control", are all a reflection of these individuals wanting to support the research on the one hand, because improving patient care is important to them as health professionals and individuals (lifeworld), but at the same time they are administrators and leaders in the organisation (system) which requires and expects them to ensure the everyday work needs of the organisation are met within budget. Kanter (1977) and Roberts (1983a) posit that leaders that arise from subordinate groups invariably take on the values of the dominant group and further oppress their own kind. It is understandable how individuals (in particular nursing and midwifery leaders) in positions of power take on the values of the organisation as they assimilate to the role. In summary, the 'gatekeepers' were happy to support the research, but they needed me to understand that even though they thought the research was important, it could not take precedence over the everyday business of staffing and running the hospital according to system regulations and rules. According to Habermas (Habermas, 1984, 1987), this would be an example of colonisation of the lifeworld. Of course I understand this position as a past employee of Queensland Health; I know first-hand how difficult it was balancing lifeworld desires with system expectations. The final 'gatekeeper' from which I needed support was the Ethics Committee.

Obtaining ethical approval

The National Ethics Application Form (NEAF) was submitted to the Health Service District Human Ethics Committee for the *Many Happy Returns* hospital and also to the James Cook University Human Ethics Committee. The James Cook University protocol at the time allowed for the application to be assessed by the Health Service District Human Ethics Committee (both of the ethics committees did not have to assess the application) provided that all correspondence relating to the application was forwarded to them. Once approval was granted by the Health Service District Human Ethics Committee, the James Cook University Human Ethics Committee also granted approval.

As part of the NEAF, I needed to secure a research monitor at the hospital site; the Director of Obstetrics and Gynaecology accepted this role. The Nurse Researcher at the hospital was also happy to fulfil this role if needed. The application was originally tabled at the ethics committee meeting held 3 April 2007. I was aware from discussions

with the Nurse Researcher at the hospital that the hospital ethics committee may seek further information about the methodology as they predominantly dealt with quantitative research applications, in particular randomised control studies. Barrett (2006) noted in her action research project with midwives, her difficulty in obtaining ethical approval, which took over six months; "a lot of negotiation on my part to convince powerful institutional gatekeepers that the research fulfilled all ethical criteria...as it was seen to be methodologically different from medical research" and "...waited two months for a response that requested methodological clarification (as opposed to ethical)" (p. 230). Therefore, it was not unexpected when I received a letter from the committee seeking clarification regarding how the methodology would address the research aims. I worked with my supervisors to best address the ethics committee questions and then resubmitted an amendment letter to the committee.

On 8 June 2007 confirmation that ethical approval had been granted for commencement of the study was received, provided that I contact (phone) one of the committee members [name not supplied to maintain confidentiality] and provide further clarification on: the research question and research protocol; whether research results were to be made available to research participants; and, approval to conduct the research was obtained from the Director of the Institute of Medicine. The practice of requesting the researcher to contact a member of the ethics committee to provide further clarification is common in Australia (Minichiello, et al., 1999). The ethics committee member was contacted and provided with the required information along with a letter of support from the Director of the Institute of Medicine. The ethics committee member felt that it was important that consumers were considered as participants and be interviewed (i.e. pregnant women that had attended the ED for care). The research protocol included collecting preliminary data from: focus groups involving multidisciplinary health professionals; hospital policy and procedure documents; and, a chart audit. I spoke with my supervisors about the inclusion of individual interviews with women who had attend the ED while pregnant and both felt that it was reasonable to do so and would add to the preliminary data collection. This is a perfect example of how the action research project design evolves in response to feedback and collaboration with others. An amendment letter was submitted to the ethics committee requesting inclusion of 'consumer' interviews, which was granted. Obtaining ethical approval did take time (approximately four and half months), but when final

unconditional approval was granted (8 August 2007), the ethics committee, my supervisors and I, were all satisfied that the study was based on the highest of ethical standards.

During the conduct of the research two further letters were submitted to the ethics committee. One to request a 12 month extension, which was granted and a further request to use certain photographs taken during the research, for the purpose of enhancing oral presentations and for inclusion in the written thesis. None of the photographs identified the hospital site or any of the participants in the research; approval was granted. The final ethics report was submitted 25 November 2009.

Stage 2: What is the exact problem?

I believe it is important to study real world problems in their natural settings in order to change practices to improve the situation for those involved, a belief common to many participatory action researchers (Kemmis & McTaggart, 1988; Koch & Kralik, 2006; McNiff & Whitehead, 2002; Reason & Bradbury, 2006). I am comfortable using different methods to gather data, as I consider this translates to a greater understanding of the phenomena. Green, Daniel, Norvick (2001) assert that the key with PAR is not in the methods that the researcher chooses but in the attitude of the researcher. A collaborative and inclusive approach is central to achieving successful outcomes. Qualitative researchers "deploy a wide range of interconnected interpretive practices, hoping always to get a better understanding of the subject matter at hand" (Denzin & Lincoln, 2005, p. 4). As part of the reconnaissance, a combination of focus groups, individual interviews with women, policy and protocol documents and chart audit was used to generate a greater understanding of the phenomena being studied.

Focus groups

As previously mentioned in chapter three, focus groups using nominal group technique (NGT) (Aspinall, Hughes, Dunckley, & Addington-Hall, 2006; Carney, McIntosh, & Worth, 1996; Freeman, 2006; Gallagher, et al., 1993; Gaskin, 2003; Harvey & Holmes, 2012; Jamieson, Griffiths, & Jayasuriya, 1998; Perry & Linsley, 2006; Potter, Gordon,

& Hamer, 2004; Van de Ven & Delbecq, 1971, 1972) were conducted with staff from the ED and maternity areas to help generate understanding and knowledge about the topic area. Data obtained from the focus groups was later used as discussion triggers for the PARG meetings.

Recruitment of participants to focus groups

An invitation to attend the focus groups, in the form of flyers (Appendix B) and an email (Appendix C) sent to the head of each clinical department was extended to: midwives; obstetricians; emergency nurses; and, emergency doctors. I requested that the email be forwarded to persons that the head of each clinical department felt would be interested in contributing to the study. The CNC educator for the ED asked me to conduct an in-service session to explain the research first; I did this on 5 September 2007. It was open to all ED staff. All four focus groups were conducted over a four week period in September 2007.

A meeting room at the hospital that was easily accessible and familiar to participants, was booked to conduct the focus groups, each taking approximately 60 minutes. The meeting room bookings were made by making contact with the following people, listed in chronological order of focus group meeting dates.

- Emergency doctors' focus group – booked via contact with the Emergency Physician responsible for in-service training and education of all ED doctors. Information sheets (Appendix D) were available at the time of the focus group, prior to commencement of session. The information sheets were unable to be distributed prior to this time. The focus group was conducted on 6 September 2007 and the venue was a meeting room in the ED at the hospital.

- Obstetric doctors' focus group – booked via the Executive Support Officer for the Director of Obstetrics and Gynaecology. Information sheets were given to the support officer to distribute prior to the focus group meeting. Additional information sheets were also available at the focus group for participants prior to commencement of session. The focus group was conducted on 10 September 2007 and the venue was an education room in the neonatal intensive care unit at the hospital.

- Midwives' focus group – booked via the CNC Educator for midwifery and women's health. Information sheets were given to the educator to distribute prior to the focus group meeting. Additional information sheets were also available at the focus group for participants prior to commencement of session. The focus group was conducted on 13 September 2007 and the venue was an education room in the neonatal intensive care unit at the hospital.

- Emergency nurses' focus group – booked via contact with the CNC educator for the department. Information sheets were given to the educator to distribute prior to the focus group meeting. Additional information sheets were also available at the focus group for participants prior to commencement of session. The focus group was conducted on 19 September 2007 and the venue was a meeting room in the ED at the hospital.

The focus groups were audiotaped and field notes, using the participants' own language and terms, provided a record of the session. The audiotape of the focus group was not transcribed but rather kept as a record of events for future reference. Immediately following each focus group session the audiotape was listened to, ensuring all key points were documented in the field notes. Audio recording can provide the researcher with a detailed and accurate record of data (Nagy, et al., 2010; Stringer, 2007). The preliminary data gathered from these focus groups reflected each professional cohort's views about the topic and provided accurate and powerful discussion triggers for the first meeting of the PARG. Details of the findings from the focus groups are summarised in chapter five.

Why use NGT?

There were a number of persuasive reasons for using NGT. Firstly, involving experts in a *face to face* structured meeting enabled first-hand information to be obtained from those working in the 'front line' of the clinical areas involved. It was also believed that meeting expert clinicians face-to-face would help develop rapport with potential candidates for the PARG, which was central to the subsequent conduct of the research. When the PARG was established, approximately 80% of its members had attended the focus groups.

A number of other practical considerations supported the use of NGT. Firstly, it is *time efficient* (Potter, et al., 2004), being a single occasion process which nonetheless provides an opportunity to acquire a substantial amount of information in a relatively short time. This was a significant consideration, since the research involved very busy hospital clinicians with limited availability. Secondly, NGT is *money efficient* (Potter, et al., 2004) in that it entails little direct expenditure. In this case, the venue was available without charge, and a small grant enabled refreshments to be provided, which appeared to encourage a relaxed and sharing atmosphere. Thirdly, NGT required *minimal to no pre-meeting preparation* by participants, again an important consideration for stressed and busy clinicians who would be reluctant to participate if it entailed pre-reading or other tasks such as completing questionnaires. This meant that senior clinicians with demanding work schedules agreed to participate, an important consideration in view of the conclusions of Cook and Birrel (2007), supported in this study, that the level of expertise of the group is crucial to its success and the validity of the data it generates. Fourthly, NGT, allowed for in-session completion and *immediate dissemination of results* to the group, promoting satisfaction with participation.

The final two compelling reasons for using NGT in this study were its capacity to give *equal representation to all group members* and to *create an environment conducive to initiation of change* (Davis, Rhodes, & Baker, 1998). Both of these are key considerations from a critical action researcher’s perspective. Equal representation was important in ensuring that one health discipline did not dominate the process, nor dominant group members impose their opinions and views upon more reticent colleagues (Gaskin, 2003). In this research, NGT lessened the impact of unhelpful group dynamics and encouraged participation from all group members, regardless of their discipline or level of appointment. Finally, it is a *sine qua non* of action research that participation takes place in an atmosphere conducive to change, and NGT was effective in creating a passion among the expert clinicians to bring about change for the improvement of the care of pregnant women attending the ED. It allowed all participants to voice their opinion and feel empowered to contribute information that would lead to the development of better treatment protocols (Harvey & Holmes, 2012).

The NGT protocol: A step by step approach

The protocol for conducting NGT for this study was adopted from Potter et al. (2004, p. 128). The five steps in the protocol are: introduction and explanation, silent generation of ideas, sharing ideas, group discussion and voting and ranking. Below is an account of how NGT was applied when conducting focus groups for this study (Harvey & Holmes, 2012).

Introduction and explanation: In this study, each focus group began with a brief introduction, followed by an explanation of the purpose of the session. Below is an excerpt from what was said at the commencement of the ED nurses' focus group.

> *This study concerns the triage and management of pregnant women in the ED and how decisions are made in respect of this client group. I am a midwife and have also worked as an emergency nurse. In this study I have also asked ED doctors, obstetric doctors and midwives the same sorts of questions in similar focus groups to this one today. I am hoping that each professional group will contribute information towards this topic to generate a greater understanding. Today, I'm particularly interested in what it's like for you as ED nurses. I'm here to find out what you can tell me, so please don't hold back. All the different groups will have the same opportunity to contribute information, so please say what you want* (Nikki, audiotaped excerpt, 19/09/2007).

Additional 'information giving' in the introductory phase included: distributing the information sheet to participants and gaining consent; informing the group that the study had ethical approval and support from key hospital personnel such as the Directors of Nursing and Medicine; and, establishing ground rules around confidentiality, respect and protection of participants' identity. Consent was also gained to make an audiotape of the session, primarily for the purpose of conducting self-evaluation as well as checking accuracy of field notes.

Each focus group was comprised of the same professional category. For example, group one consisted of ED residents, registrars and physicians (N=10), group two obstetric residents, registrars and consultants (N=5), group three midwives from the birth suite and maternity ward area (N=7), and group four nurses from the ED (N=16). The

purpose of comprising the focus groups in this way was to provide an environment where each group of professionals felt secure and comfortable discussing the topic at this early entry point to the study. I felt that this was achieved as each group talked freely and appeared comfortable and relaxed which was evident by their contributions. Furthermore, it was also a good opportunity to establish rapport with each cohort of professionals before establishing the PARG.

Silent generation of ideas: Each participant was provided with a pen and handout that contained six questions (Table 4.1). They were asked to write down all their ideas when considering each question, and not to consult or discuss their ideas with others at this stage. This was generally an effective procedure, with only the occasional comment being made between participants and one participant seeking clarification on a question. A couple of minutes was allocated to each question, and this proved to be adequate, since all participants had stopped writing at the end of the period allotted and were ready to move onto sharing their ideas.

Table 4.1 Nominal group technique questions

NGT QUESTIONS
1. In your experience, what are the commonest reasons for pregnant women to present to the ED? – just write them down.
2. What is the normal process you follow when a pregnant woman presents to the department? Just write down the steps you would normally follow.
3. When do you consider referring a woman directly to the birth suite? Again just write down the types of presentations.
4. Are you using hospital or practice polices/guidelines when you make decisions about pregnant women in the ED? If so, can you write down the ones that influence your decision making?
5. What strategies and processes do you think would improve the triaging and management of pregnant women in ED?
6. Final question…Approximately how may pregnant women do you see in a week in the ED? (I am just trying to gauge whether this is relatively common or not).

Sharing ideas: Next, the participants were invited to share their ideas. The 'round robin' technique proved to be very effective with everyone in the group sharing at least one idea, and this continued until all lists were exhausted. Ideas were recorded on a whiteboard for three of the groups, using the exact words spoken by the participants. This helped create an atmosphere where the participants' interests were the main focus and not that of the researcher, helped develop an understanding from the participants' perspective, and represented the data in the participants' terms. For the fourth group there was access to a laptop, data projector and large screen, and the information was typed verbatim. This was a time efficient method, with the added benefit of providing an electronic record of the session.

Group discussion: Once all the responses were listed, the participants were invited to seek verbal explanations or further details about any of the ideas that their colleagues had produced that may not be clear to them. During this stage, it was important to find a balance between allowing participants to contribute to the discussion and not having one person dominate the discussion. It was also imperative that the process be as 'value neutral' as possible, avoiding judgment and criticism. This was not as difficult as first anticipated, although the smaller group, of five participants, proved more challenging because it included both dominant and reticent personalities. Although the dominant participants were knowledgeable and keen to contribute, I repeatedly sought the engagement of the quieter voices, and a reasonable balance was achieved. Since the focus groups provided an opportunity for participants to share and contribute to this aim, they felt they were part of the solution, not the problem, which is a common perception in a systems dominated environment. Unfortunately, since the participants were all busy hospital clinicians and could not afford to be 'off- line' for longer than necessary, this stage lasted only 40-45 minutes.

Voting and ranking: The final part of the process was to ask each group to prioritise their recorded ideas about each question discussed. As each question was discussed, the group was asked to negotiate what they regarded as the top four priority ideas/items were. One group, when first asked to rank their list, would have one person in the group nominate a particular item and then further group discussion would occur, eventually leading to an agreed list of priority items. Eventually, the group would say "*yes, yes*

that's right now, yes that's the way it is". Overall, the process of ranking worked well, and the priority lists reflected group consensus.

Interviews with women who attended the ED while pregnant

Anecdotal evidence given by clinicians that demonstrated inconsistent management of pregnant women in the ED was highlighted in chapter one. To explore this further, and as a way of confirming whether the anecdotal reports were consistent with the experience of pregnant women, I interviewed women who had attended the ED while pregnant to get a first-hand account of their experiences. The data obtained from the these interviews was not used as an indication of quality of care received, but rather to increase credibility for the rationale for undertaking the research and to demonstrate the significance of the problem. I interviewed six women individually to obtain their narrative. Criteria for inclusion were:

- the woman was pregnant at the time of review in the ED;
- the experience was after 01 January 2006;
- the presentation was either pregnancy or non-pregnancy related; and
- the presentation was either emergency or non-emergency in nature.

Recruitment of women for interviews

Recruitment was mainly by way of a flyer posted in the maternity ward, the antenatal clinic, and the ED waiting room at the research hospital site (Appendix E). Additionally, members of the PARG working in the ED also assisted with opportunistic recruitment by informing women of the study when they were seen in the ED. I never asked them to do this, though I assume as 'co-researchers' they felt comfortable taking on this role. They told me they would first mention to the woman their involvement in a study to help improve the care of pregnant women in the department and that Nikki, as the principal researcher, was interested in interviewing women about their experience. If the woman said she may be interested in talking with me, they would give her a flyer to take home.

Interview process

Stringer (2007) describes interviews as guided reflection and should take the shape of informal conversations:

> Interviews provide opportunities for participants to describe the situation in their own terms. It is a reflective process that enables the interviewee to explore his or her experience in detail and to reveal the many features of that experience that have an effect on the issue investigated. The interview process not only provides a record of participants' views and perspectives but also symbolically recognizes the legitimacy of their experience. (p. 69)

The interviews were scheduled at a convenient time and in a convenient location for each woman and spanned across a period of 21 months. Stringer believes allowing the person to pick the time and place will make them feel more comfortable as they will often suggest contexts in which they feel safe. This will facilitate them to say what they are really thinking and express how they are really feeling. After making introductions, I went through the information sheet (Appendix F), allowed time for them to read the sheet on their own, and obtained informed consent. The interview (conversation) commenced with a question similar to this; "When you are ready, could you please describe your experience of being seen in the emergency department when you were pregnant?" I clarified, rephrased, prompted and used listening cues as required. At the completion of the interview I enquired about their support network and also informed them of the free counselling service that James Cook University offered for participants of research. Because of the rapport I developed with the women and my professional background as a nurse and midwife, I felt all women were safe and would contact me if they needed further support.

To ensure accuracy and credibility of the interview data, I used 'member checking'. Member checking is where participants have an opportunity to reflect on the ideas and information they shared in the interview and either agree, extend or modify some of the content (Stringer, 2007). At the completion of the interview I informed the women that I would contact them again in the near future to ask them to review their transcript for accuracy. If at that time they wished to change or add to the interview transcript, they were able to. All women interviewed requested for the transcript to be emailed, rather than me sitting with them while they read it. I have copied an email below that I would send to the women with their transcripts.

Thank you so much for sharing this story with me. It will be very helpful in improving care for pregnant women when they attend the emergency department. I have transcribed the tape; I need to warn you that it is not how we normally write. When we speak there are odd words and 'umms' etc used. Don't worry about this as it is completely normal. I have to transcribe exactly what was said, so I have included all the umms, repeat of words etc. Please let me know if you would like anything amended/changed or if you concur with the contents of the interview as is. Lastly I have given you an alias. All participants are given a pseudonym to protect their identity as per ethical guidelines. I have given you the name of 'Sue' for the purpose of the transcript and any written material where parts of the interview may be referred to (if you have another name that you'd prefer, let me know and I will be happy to change it). Thank you again and I look forward to hearing your feedback about the transcript (Nikki, email correspondence, 10/10/2007).

Below is a list of when the interviews took place. Findings from the interviews can be found throughout chapter five, six, seven and eight.

- 20 September 2007: Interview 1 with Belinda (pseudonym)
- 18 January 2008: Interview 2 with Sue (pseudonym)
- 07 February 2008: Interview 3 with Jodie (pseudonym)
- 09 June 2008: Interview 4 with Kim (pseudonym)
- 14 October 2008: Interview 5 with Cathy (pseudonym)
- 04 June 2009: Interview 6 with Laura (pseudonym)

Each interview was audiotaped and transcribed for analysis, as described in chapter three. As mentioned, the information obtained from the interviews was used to support the rationale for undertaking the study and to confirm whether the anecdotal evidence from clinicians was consistent with the experiences of the interviewed women. Information from the interviews was summarised and presented back to the PARG as they were completed. As the interviews spanned a 21 month period, this information was introduced to the PARG over a prolonged period of time. This was not considered a

problem as the action research process accommodates the introduction of new data though the many cyclic processes. Often the data would reinforce what the PARG had already determined in precious cycles from the data, thus increasing the credibility and dependability of the data.

Additional interviews

Additional interviews occurred through opportunistic 'conversations' with key stakeholders, gatekeepers or through the request of the PARG. For example during our first meeting it was suggested by the PARG that I should speak with the coordinator of the 'Stillbirth and Neonatal Death Society' (SANDS), since the preliminary data from the focus groups demonstrated that the most common reason a woman attended the ED was bleeding per vagina (PV) during early pregnancy and subsequent miscarriage. (This will be discussed further in chapter five). Again, this demonstrates the evolving nature of action research as being responsive to the needs of the research. The process I followed was similar to the one above with individual interviews. I would arrange a suitable time and venue to meet, provide introductions and pleasantries (developing rapport), explain the research and aims (create initial understanding), explain the purpose as to why the PARG thought it would be helpful to speak with them (situate their role in the process), and confirm they were happy to speak with me (informed consent). I did not audiotape these conversations, but after the conversation had started, I asked the person if they minded me taking notes; all consented. The opportunistic interviews transpired in the corridors of the hospital or in the tea rooms. Because many people (gatekeepers, staff in ED and maternity areas) knew about the research, they would often ask me how it was going and add some 'gem' of information, or stop me to tell me something that had occurred. The contents of these opportunistic conversations were mostly relayed to the PARG by me through emails or when we would next meet.

Policy documents

All ED protocols and midwifery unit protocols were requested and specifically reviewed to elicit information about triaging and management of pregnant women. Stringer (2007) states that a great deal of significant information can be gleaned from documents and records. The two main protocols that were reviewed were a medical protocol which outlined the management of pregnant women who presented with

bleeding in early pregnancy, and the hospital policy about when to transfer a pregnant woman to the birth suite from the ED. The information drawn from the ED protocols helped generate understanding and knowledge about the topic area and was used as discussion triggers for the PARG. The PARG deemed that these documents needed revising and updating and this was accomplished as an outcome of the research. Two members of the PARG (ED nurse and ED physician) volunteered to champion this, and the whole group gave feedback on drafts as they were tabled. The PARG members also sought feedback from staff in the ED, since they were updating and revising the protocols.

Chart audit

A chart audit is an examination of medical records, to determine what is done, and see if it can be done better (Gregory & Kaprielian, 2005; Greiver, 2006). Chart audits are also a convenient method to determine current practice before introducing change to practice guidelines (Davies, et al., 2006). I used as a guide Gregory and Kaprielian's eight essential steps in conducting a chart audit. These are: select a topic; identify measures; identify patient population; determine sample size; create audit tool; collect data; summarise results; and, analyse and apply results. For this study, a retrospective chart audit of pregnant women presenting to the ED was conducted for the month of August 2007. Charts were requested for the one month period prior to the researcher entering the hospital site to reduce the risk of ED staff documenting differently due to the researcher's presence. The chart audit provided another data set for the PARG that contributed to generating understanding and knowledge about the topic area.

Process and access

At the time of originally submitting the NEAF to the '*Many Happy Returns*' Health Service District Human Ethics Committee, I informed them of: my intent to use a chart audit as a data collection method; the reasons why I wanted to undertake a chart audit (to increase understanding of research topic); the criteria by which I would be selecting charts (pregnant females that had attended the hospital's ED in August 2007); and assurance of de-identifying data and maintaining confidentiality. Ethical approval was granted for the chart audit. Preparation for the chart audit began in March 2008, after the establishment of the PARG.

One of the ED nurses in the PARG volunteered to help with the chart audit as she was familiar with the hospital processes. I had completed the 'Queensland Health: Release of confidential information under the Public Health Act 2005' application (which is quite an extensive document), and as part of that process was required to consult with the 'data custodians' at the hospital and provide evidence of consultation. The PARG member forwarded contact details to the Clinical Information Services Unit at the hospital, which is where the 'data custodians' are located. A number of email exchanges later confirmed that the 'Queensland Health: Release of confidential information under the Public Health Act 2005' form did not need to be submitted, owing to already having ethical approval for a chart audit; I just needed to submit the 'ethics approval letter' as proof. Next, a one page request form detailing what information was required was emailed to the Clinical Benchmarking Coordinator. Development of an 'audit tool' (Appendix G) as recommended by Gregory and Kaprielian (2005) was also sent along with the one page request. The Clinical Benchmarking Coordinator was able to supply some of the required information directly from the chart records database (UR number, date, age, mode of arrival to ED, presenting complaint, triage category and length of stay), but the remaining information had to be manually found (i.e. retrieving and viewing each chart for the information required). A time was arranged with the Medical Records Team Leader to access the charts and learn how to find the charts using the 'terminal digit filing system'. Prior to this, I signed a Queensland Health 'Undertaking of Confidentiality' declaration form and was then given access codes to the secure medical records area.

The first meeting with the Medical Records Team Leader confirmed that it would take a considerable time to find and view 2,816 charts which made up the female presentations for the month of August, 2007. The team leader advised that I 'cull' the number as much as possible. This was done by using stratified random sampling and then taking a simple random sample from each presenting category (Schneider, et al., 2007; William, 2006). Limits to the age and presenting complaints category were applied first to divide the sample into homogeneous subgroups. Age limit of 15-45 years was applied as most pregnancies fall in this age group (Laws & Hilder, 2008); this reduced the number to 1,319 charts. Next the presenting complaints were limited to: pain (N=301); obstetrics/gynaecology (N=89); gastro (N=104); reviews (N=74); urology/reproductive (N=16); injury (N=199) and general practitioner referrals (N=22). The presenting

complaints categories were chosen in accordance with focus group data that listed the priority reasons why pregnant women attended the ED. This left a total of 805 charts. Finally, simple random sampling was applied, using the random generator in Microsoft Excel, taking the first 40% of charts listed in each presenting complaints category, with the exclusion of the obstetric/gynaecology category, where all 89 charts were reviewed for obvious reasons. The final numbers were: pain (N=120); obstetrics/gynaecology (N=89); gastro (N=42); reviews (N=30); urology/reproductive (N=7); injury (N=80) and general practitioner referrals (N=10); leaving a total of 378 charts. The results of the chart audit can be found in chapter five.

Figure 4.1 Row after row of charts...a time consuming job

Grant money from a postgraduate research scheme paid for research assistance for two days, but apart from that, I completed the chart audit myself. I commenced the audit 3 April 2008 and completed 24 April 2008, working appropriately 14 full days during that time. Because charts did not only reside in the medical records main area, I needed to travel around the hospital to different departments searching for the charts if they were not located in the main area; this was very time consuming. I found areas in the hospital that I never knew existed prior to conducting the audit. Figure 4.1 illustrates the long rows of charts in the main medical records area of the hospital; there were over 20 rows

of charts, making it a time intensive activity. I got to know the staff in the medical records area quite well over this short time, and on my last day I brought in a jar of lollies and a 'thank you' card: the staff were very appreciative and invited me back anytime.

Stage 3: Establishing the PARG

Advertising for recruitment of members to the PARG was initiated at the end of each of the focus groups conducted in September 2007. Focus group members were informed about the establishment of the PARG and what the purpose and aims of the group would be and advised that an expression of interest would be sent via email (Appendix H). Anyone interested in knowing more about the research and the role of the subsequent PARG were welcomed to contact me for further information.

During the ED doctors' focus group, a suggestion was made to include a general practitioner (GP) in the PARG. The rationale being that pregnant women were often referred by a GP to the ED, therefore understanding why and how these decisions were made outside the 'hospital walls' would be helpful in further understanding how pregnant women are managed in general. I sent a letter of introduction and explained the research, along with an expression of interest for the PARG, to the GP Liaison Consultant, General Practice Network. The expression of interest email was also sent to hospital gatekeepers to keep them informed of the progress of the research.

Expression of interest

Within a short timeframe, a number of replies were received from both doctors and nurses working in the ED. One of the ED doctor's emailed to state that they would be happy to be involved and also mentioned another ED doctor had expressed an interest in being involved in the research, as they were passionate about women and their treatment in the ED. Five ED nurses expressed an interest in being involved in the PARG. Unfortunately only two (possibly three) ED nurses were allocated positions in the group to keep the group size around 8-10 people. Therefore, I advised the fourth and fifth respondents that the positions had already been allocated and thanked them for their

interest in the research. However, during a telephone conversation with the CNC educator for the ED, I was made aware that there was 'competition' to be involved in the PARG and that she had been approached by one of the nurses who strongly wanted to be involved and had missed out. Subsequently, the CNC spoke with all the nurses who were interested and selected the three representatives. I had mixed feelings about this; I was glad that there was a good response, yet I felt bad that I could not accommodate everyone wishes. I was also unsure about the extent 'power' was used in making the final selection of ED nurses for the PARG. As the gatekeeper's support was important to the research, I gratefully accepted the three names that I was given. Below is a copy of the email I sent to the ED nurse who no longer had a position in the PARG.

> *Hi [Name], I understand that [Name], [Name] and [Name] will be filling the allocated positions in the participatory action research group. I am sorry that I cannot accommodate anymore than three representatives in the group. I am trying to keep the group to around 10 and it is slightly bigger already. I am really pleased that so many wanted to be involved; it is unfortunate that I am restricted to a certain number. [Name], [Name] & [Name] will be relaying information/strategies that are discussed back to the ED staff, and I welcome any input from you via them, or you can email me directly. Kind Regards, Nikki*

Of the remaining professional groups, three 'applications' were received from midwives, all of which were accepted. No response was received from the O&G doctors' group, so I re-sent the email to the Director of O&G requesting contact details of doctors to approach about being in the PARG. In turn, the Director forwarded my email to one Obstetric Consultant and one Obstetric Registrar, with a message stating that it was imperative that O&G clinicians were involved in any discussions involving O&G patients in the ED.

Greenwood, Whyte and Harkavy (1993) claim that:

> No one may mandate in advance that a particular research process will become a fully developed participatory action research project. Participation is a process that must be generated. It begins with participatory intent and continues by building participatory processes into the activity within the limits set by the

> participants and the conditions. To view participation as something that can be imposed is both naive and morally suspect. (p. 176)

As mentioned earlier, I did not want staff to be selected to the group; the intent was for staff to volunteer to be in the multidisciplinary PARG. Nonetheless, I was pleased that there would be obstetric doctors present in the group and I knew that I would continue to build participatory processes along the way. It is also evident in the above email from the Director that he was very concerned about the implementation of changes to practice without their involvement. Wadsworth (2005) maintains that PAR is potentially dangerous terrain for managers in terms of retaining control. It was clear that power and control over the management of pregnant women (anywhere in the hospital) was considered their domain, and I needed to ensure I remained open and inclusive to reduce the fear of 'losing control'. I received an email later that same day from the obstetric registrar confirming that he would be in the PARG. I never heard back from the obstetric consultant. I enquired about him sometime later, and the midwives that knew him volunteered information which suggested he was extremely busy at work and was also preparing for an examination. I did not persevere, as it was clear to me that he was not available at this time to be involved. Finally, the GP Liaison Consultant never responded either and after multiple attempts, I decided not to persist with sending further emails. In preparation for the first meeting I sent an email to the confirmed members of the PARG outlining date, time, venue and a brief overview of what the structure of the meeting would be like. Appendix I is a copy of the email.

First meeting

The inaugural meeting of the PARG was Thursday 6 December 2007. The meeting room was at the *Many Happy Returns* Hospital; it was not in either clinical department area (ED or maternity), but a neutral meeting room which was often used by the hospital for general meetings. Even though all members of the group had confirmed their availability to attend, only five came. The composition was three ED nurses, two midwives and myself, making a total of six members present for the first meeting. I planned a basic structure for the meeting that included: introductions and informed consent; discuss the shared purpose and aims of the group; explain what PAR was and how it was different to other research methodologies; formulate agreed ground rules for

the group; go through action research folders and resources; highlight the preliminary data; discuss reflective practice and reflexivity; decide on 'jobs'/homework; ensure that everyone knew how to contact each other (membership list); and decide on next meeting date – there was a lot to get through. Below is a small excerpt taken from the beginning of the first meeting; I was discussing the purpose of the PARG and the possibility of change.

Nikki:	*You're in the group because you are experts and have personal experience…and both of these attributes are valuable in helping to understand and help solve this problem. [ ] I suppose what I believe is that we are all here, we have different reasons for being here, but we have one shared purpose and that is that we want to work together, collaboratively, in order to understand what's happening with the triage and management of pregnant women when they come into the emergency department and then to help improve that [ ]. You guys are actually co-researchers in this process, so it does involve some work on your behalf, um and there is an assumption that you would like to see this problem improved and that you'll be working collaboratively with me to, and the rest of the team, to do that. Is everyone okay with that? [laughter from me and the members of the PARG were nodding and collectively saying yes]…And that you all believe that change is possible. Now I know that is hard because we are all a little bit cynical, being health professionals…*
ED Nurse 1:	*Just slightly [laughter]*
Nikki:	*Yeah [laughter], um and I understand what it's like and my understanding is that it is sometimes…*
ED Nurse 2:	*They have got…they have got a psych nurse in ED now, so this is good.*
Nikki:	*Yeah, so you know that change is possible [collectively the PARG said yes, yeah and were nodding their heads]. And I think it is important that we all have that assumption, that it is possible because there is no point in undertaking action research or being*

involved in action research unless you believe that it can actually make a difference, because…and that change is possible.

The group agreed that it would be helpful to have a record of what was discussed so I distributed 'meeting notes' after each meeting by means of email. An example of meeting notes can be seen in Appendix J. There was no objection to having the meetings audiotaped; this added to accuracy and ensured no important pieces of information were missed in the notes. Following the meeting, I received an email from both ED physicians apologising for missing the meeting; one person forgot the meeting and the other person had a work related priority. The obstetric doctor also sent his apologies, saying he was needed in clinics. The ED doctor who forgot the meeting, sent me an email which I thought was quite funny; "I have written "mp2 ikkiN teem" on my forehead so it reminds me every morning I look in the mirror". He was present at the next meeting.

As the researcher, I drew on my previous experience to assist me to establish an environment that was conducive to facilitating free speech and information sharing. My experience in teaching effective communication skills and establishing and facilitating groups in my role as an academic was useful and gave me much needed confidence during the first action research group meeting. Figure 4.2 is a photo that was taken during the first meeting. The venue was a comfortable room with refreshments supplied on the table (bottles of water, biscuits, slice, lollies), both of which assisted in establishing an atmosphere of trust and collegiality, which is important in action research (Stringer, 1996; Wadsworth, 1998). Another important method in establishing trust and collegiality, with a diverse group of health professionals, is setting ground rules.

Ground rules

Setting ground rules for the group from the outset was essential if my aim was to create opportunities where 'ideal speech situations' (ISS) could occur. Habermas' theory of communicative action helped establish the foundation to allow for ISS to occur (Carr & Kemmis, 1986b). As earlier defined in chapter three, the principles of an ISS are that: people leave their power at the door when entering a collaborative interaction; people take the phenomena being discussed seriously; and people stick to the facts and not let

emotions take over (Carspecken, 1996). An example of some of the group rules discussed and agreed upon were: respect for each other and their opinions; that there would be no character assassinations (solution focused, not blame focused); allowing each person a voice; being non-judgemental; that we were all there with the same shared purpose (increasing understanding, rationality and justice); that we all believed that change was possible; and there was an expectation that all members would attend meetings and contribute as much as was possible. The last ground rule was agreed to with the acknowledgement that the clinical environment is unpredictable. The group decided that as long as members continued to contribute, even if they could not always attend meetings, they would remain active members of the group. Establishing ground rules and facilitating emancipatory knowledge by allowing the PARG to recognise connections between their experiences and that of others, was my responsibility as the 'researcher' (Kemmis & McTaggart, 1988).

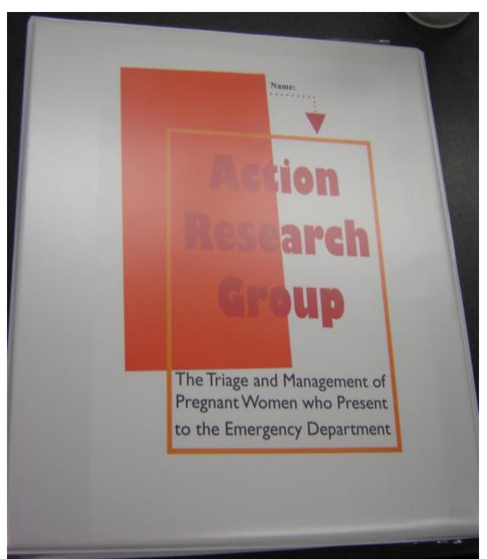
Figure 4.2 First PARG meeting

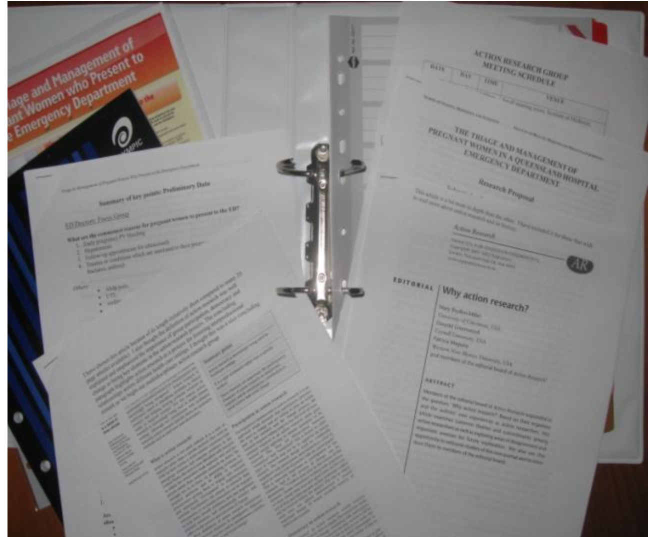
Action research folder

Each PARG member was given a folder; these can be seen in Figure 4.3. The folder contained: a meeting schedule sheet; Olympic A4 notebook (for journalling or making critical notes); A4 copy of research poster that I had developed; condensed version of the research proposal; two articles on PAR; summary document of key points from the preliminary data to date; set of dividers; red, blue pen; and a yellow highlighter. This was given to encourage a greater understanding of the action research process though readings, and to demonstrate the importance of reflective practice and critical thinking in the action research process. It was also important to demonstrate the collaborative

component of the research by sharing information and ensuring that we all had exactly the same resources – we were all equal in the PARG. These are critical objectives for all participatory action researchers to possess (Koch, et al., 2005; Winter & Munn-Giddings, 2001).

Figure 4.3 Action research folder and contents





Stage 4: Maintaining the PARG

Participatory action research encompasses research and change, which is hard work and time consuming (Dick, 2004). I initially anticipated the PARG to operate, with me as the facilitator, for approximately six months. The reality was closer to two years. The realities of conducting research in clinical environments with busy health professionals is that it takes time, and lots of it. I struggled at times and became frustrated with the slowness of the process, and was tempted to 'take-over', to speed up the process. Thankfully at these times, I reflected on the reasons why I was doing the research and the reasons why I specifically choose a PAR approach, and this enabled me to stand back and allow the process to unfold without me compromising it. I did not want to cause a power imbalance in the group because of my own agenda of 'getting a PhD'. An overview of the dates and times of the PARG meeting are listed in Table 4.2.

Table 4.2 Overview of dates and times of PARG meetings

Meeting	Date	Time	Number & composition of members present at meetings
1	6 Dec 2007	2.00 pm	**6** (1 x researcher; 3 x ED nurses; 2 x midwives)
2	20 Dec 2007	2.00 pm	**4** (1 x researcher; 1 x ED physician; 1 x ED nurse; 1 x obstetric registrar)
3	6 Feb 2008	2.00 pm	**3** (1 x researcher; 1 x ED nurses; 1 x midwife)
4	23 Apr 2008	1.00 pm	**5** (1 x researcher; 3 x ED nurses; 1 x ED physician)
5	20 Feb 2009	1.00 pm	**2** (1 x researcher; 1 x midwife)
6	10 Mar 2009	2.00 pm	**4** (1 x researcher; 1 x ED physician; 1 x ED nurse; 1 x midwife)
7	24 Nov 2009	10 am	**4** (1 x researcher; 1 x ED physician; 1 x ED nurse; 1 x midwife)

Table 4.2 shows that there were often long gaps between meetings. The group originally agreed that we should try and meet on a monthly basis, but it was very difficult to get everyone to agree on a common meeting time due to personal work rosters, absence (conferences, workshops and holidays) or secondment to work in different locations within the health service district region. The obstetric registrar went on 'paternity leave' in 2009, and the PARG was fortunate to recruit an obstetric consultant to take his place. Two midwives also left the group due to changed work environments, but again we were fortunate to have another midwife join the group in 2009. Apart from these three people, the membership remained constant. The dates in Table 4.2 were dates that suited everyone's timetable, but even then not everyone was able to attend due to unexpected workload issues and emergencies. Even though this was frustrating at times for all members of the PARG, this was something that we (the PARG) acknowledged in the first meeting that would happen from time to time, due to the unpredictable nature of doing research in the clinical environment. The three main areas I focused on to maintain the PARG's motivation and momentum for continuing with the research were: communication; collaboration; and using time wisely.

Importance of communication and collaboration

Regular, effective communication and collaboration are paramount for successful PAR to occur (Reason & Bradbury, 2006). The face to face meetings as a group were very important and were ideal opportunities to involve each other in discussion and critical reflection about the data (Winter & Munn-Giddings, 2001). I also used email as another means of ensuring regular communication with all members of the PARG. I sent written 'meeting notes' following each PARG meeting to ensure that everyone was kept up-to-date with discussions and knew what data needed further critical reflection. Any decisions about what changes needed to occur and who would be responsible for the change was done in a collaborative way by the group and communicated in emails or in the 'meeting notes'. Further to the meetings and emails, I would also telephone to follow up with individual members and see if they needed any assistance with what 'change' they were working on. Finally, I had a regular, visible presence at the hospital research site, being available to the group if needed, and also available for conversations with 'gatekeepers' or other members of staff that wish to speak with me about the research. Even though this was time consuming, it was definitely worth the effort in maintaining the motivation and engagement of the PARG.

In 2009, the PARG thought it would be wise to undertake 'information sessions' for the ED staff and the midwifery/obstetric staff about what the research had shown and what changes were implemented (or to be implemented). The group saw this as an evaluation strategy, as there would be an opportunity to elicit feedback following the presentation. I was nominated to undertake the sessions on behalf of the PARG, though I did encourage them all to attend and contribute as required throughout the presentation. The presentations occurred on 14 Sept 2009 and 28 Sept 2009 and were a great avenue for communicating the PARG's progress and accomplishments over the last two years. Results of the feedback will be discussed later in the findings chapters.

Importance of having time

"I dare say you never even spoke to Time!"
"Perhaps not," Alice cautiously replied;
"but I know I have to beat time when I listen to music."
"Ah! That accounts for it," said the Hatter. "He won't stand a beating. Now, if only you kept on good terms with him, he'd do almost anything you like with the clock."
(Lewis Carroll, Through the Looking Glass)

Ah, if that were only possible! The concept of time and PAR together, was first introduced to me by my principal supervisor in the planning stages of this research and I also read about 'time' being a consideration before embarking on an action research project (Gibbon, 2002; Karim, 2001; Reason & Bradbury, 2006). I recall understanding, from a theoretical standpoint, that action research was considered a time intensive methodology, however, now having lived through the experience personally, I have a far greater understanding of what this really means. As Fals-Borda (1991) commented "There are no fixed deadlines in this work, but each project persists in time and proceeds according to its own cultural vision and political expectations until the proposed goals are reached" (p. 7).

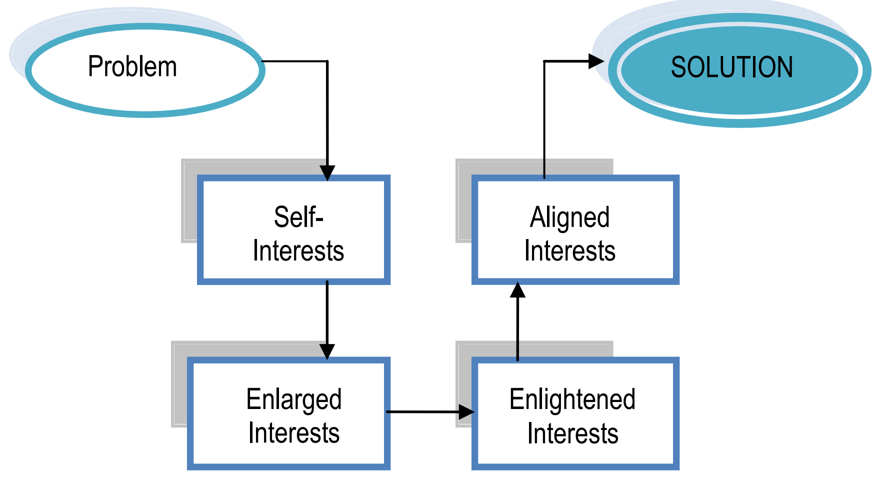
The theoretical knowledge provided me with a solid foundation to commence the study, but as I progressed with the study I discovered time was not something I had control over if I was to stay true to the PAR approach. Time was something the PARG decided, not me. For example, it was never easy organising meeting dates and times to suit all members of the group, as mentioned above. I needed to be flexible to fit in with everyone else in the group as their timetables were often inflexible. The main strategy I used to achieve flexibility, was to take unpaid leave from January 2007 - June 2008 and then again for 2009. This was a difficult decision and one that came with a personal sacrifice for me and my family; however, the benefits of championing PAR were well worth it for me and the PARG. Not having to work during this time was instrumental in being able to complete the research project and be true to the methodology.

The walk in the woods

The process of communicative action involved the PARG reviewing the data that was generated from the focus groups, chart audit and interviews with women, as well as reflecting on their own experiences and perspectives from caring for pregnant women in the ED and then working as a group to identify the main areas of concern. This process required the PARG to remain orientated to understanding the situation (communicative action) and not aimed at individuals 'being successful' (distorted communication) in having their point of view as the 'winning' point of view. This was often difficult to facilitate, as you can imagine the individuals in the PARG had strong points of view, which was understandable as they all had considerable knowledge, expertise and experience within the topic area being discussed. Marcus, Dorn and McNulty (2011) describe a process called 'the walk in the woods' that is often referred to in conflict negotiation. This process fits nicely with Habermas' theory of communicative action and the ISS that I endeavoured to create, facilitate and role play throughout the PARG meetings. Even though 'the walk in the woods' is a four step formal structure which is used in interest-based negotiation the elements in the process resemble the informal process that the PARG accomplished throughout the research. The process (as depicted in figure 4.4) involves identifying the problem first. At times, the PARG did attempt to go directly to the solution from here and I needed to ask them to back track so that the PARG could not only identify the problem, but also understand why it existed and who was benefiting or not benefiting from the current status quo. Marcus et al. purport that by first understanding what the problem is from multiple perspectives it is less likely that people will debate "solutions that ultimately solve just a portion of their shared conundrum" (p. 141). The first step in the process, which occurred during the first meeting of the group, was to have each PARG member disclose their self-interests by explaining what motivated them to be a part of the group and why this research topic was important to them. One of the self-interests which I disclosed was the desire to achieve my PhD as well as what motivated me to undertake research in this area; as outlined in chapter one. The second step, enlarged interests, occurred when the PARG were asked to discover what shared interests they had after listening to each other's individual interests as well as what they agreed on and did not agree on. Everyone noted that we all had a shared interest of improving care for pregnant women when they attend the ED and that a number of our motivations also overlapped. The third step,

enlightened interests, allowed the PARG to view the areas that they did not agree on and see it with 'fresh' eyes, to explore new thinking and ways of knowing. This allowed the group to generative innovative suggestions that they may not have considered prior to this. This was a time of discussion, reflection and working together to look at the pros and cons of each suggestion and no suggestion was dismissed until it was given a 'fair hearing' by the PARG. Some suggestions were considered non-viable because of resource restrictions, nonetheless it was a good opportunity to at least voice them and contemplate their viability. The final step, aligned interests, involved the PARG concurring on changes or strategies that would help improve the care of pregnant women in ED and still be achievable for the group to implement and evaluate. Steps two, three and four occurred throughout the research process in a cyclic motion similar to the PAR approach. As new information became available it was considered and debated until the PARG were satisfied that everyone's interests were aligned and a solution agreed upon.

Figure 4.4 The steps of the walk in the woods



Source: Marcus et al. (2011, p. 141).

Stage 5: Ending the PARG

I specifically used the words 'ending the PARG' and not ending the research. Action research is considered a continuous cyclic process and therefore I believe it would be inappropriate to use language that implied the research in its entirety was ending. This particular stage of the project ended, but the overall shared aim of improving care for

pregnant women in ED still exists among the members of the PARG. Even though the group as it was constructed at the beginning of the research no longer exists *per se*, the shared aim of improving care for pregnant women in ED does still exist, and therefore this project will continue to be championed by individual members of the PARG as they continue to reflect, plan, implement and evaluate existing and new changes to practice.

I also want to make explicit that I was actively engaged and fully committed to this project. I worked *with* the members of the PARG with the shared purpose of improving care of pregnant women in ED. In doing this, over the course of many years, close working relationships and friendships were naturally established between me and the group members. Booth (1998) observes “participatory research will always be about more than just including people as, by its very nature, the process of involvement compels the researcher to become part of their lives too” (p. 133).

Final meeting

The PARG held its final meeting on 24 November 2009. A summary of the strategies implemented and evaluations completed were highlighted. Further discussion and critical reflection were a part of this meeting, as they had been with all others. I was so pleased and proud of the accomplishments of the PARG; they had worked hard, made changes and evaluated those changes – all of which contributed to improving the manner pregnant women were triaged and managed in the ED. There were still changes happening at this time, but I needed to end the group for the purposes of the PhD requirements. The PARG members were happy to continue with the process and work together to ensure that the changes were evaluated and refined as required; they were going to continue the process without me, which is what I had hoped for. As this was the ‘ending of the group’, I met with each member to ask a series of reflective questions about their involvement in the PARG. The individual interviews were scheduled 18 November 2009 – 3 December 2009. Table 4.3 outlines the meeting dates and table 4.4 is a list of the seven questions that each PARG member was asked.

Final reflections of the group

Kidd and Kral (2005) claim "the success of a PAR project is best measured by changes in the lives of the participants...resulting from the project" (p. 189). I am pleased to say that a number of the comments made by members of the PARG reflected this opinion. I emailed the questions to each group member prior to meeting with them individually, so they would have ample time to consider the questions. Overall the responses were very positive and will be shared at appropriate times throughout the ensuing chapters of this thesis. Because I had developed a good rapport with each of the members over a long period of time, I was worried their responses may be more a reflection on how they felt about our relationship (we had become friends as well) rather than the research itself. I was concerned they would say 'nice things' to make me feel good, but upon reflection I now realise that it was because of this relationship they were willing to give honest constructive feedback. The feedback was given honestly out of respect for the research, what we had accomplished as a group, and me. We came together with a shared aim of improving care for pregnant women in the ED, and the final reflections of the group were evidence that we had achieved this.

Table 4.3 Overview of interview dates & times for interviews with the PARG

Date	Time	PARG Member
18 Nov 2009	2.00pm	Obstetric Doctor
24 Nov 2009	12.00pm	Midwife
24 Nov 2009	3.00pm	ED Nurse
30 Nov 2009	9.00am	ED Doctor
30 Nov 2009	2.00pm	ED Nurse
02 Dec 2009	2.00pm	ED Doctor
03 Dec 2009	10.00am	ED Nurse
03 Dec 2009	2.00pm	Midwife

Table 4.4 Reflection questions asked of the PARG

REFLECTION QUESTIONS ASKED OF THE PARG
1. Were you satisfied with your degree of involvement in the project? If not what do you think would have made a difference?
2. Do you believe the aim of facilitating/creating opportunities whereby members of the PARG could make changes to their own or others practice was met?
3. As a member of the PARG, what factors did you find were facilitating and what factors were inhibiting during the project?
4. Did you find it helpful to work with other health professionals from the different disciplines/specialities?
5. Is there anything I could have done better or you would have liked me to do that would have made the process better?
6. Would you consider being involved in another participatory action research project?
7. Will you continue working on improving care for pregnant women when they attend the ED?

Conclusion

This chapter has given a detailed account of the process I followed when conducting this PAR project. A systematic process, using five stages, has been followed in the re-telling of the research process. Stage one involved gaining access to the hospital site, gaining the gatekeepers support and obtaining ethical approval to conduct the research. Stage two involved identifying the exact nature of the problem by conducting focus groups, individual interviews, reviewing relevant policy documents and undertaking a prospective chart audit. Stage three was establishing the PARG; stage four was maintaining the PARG; and the stage five was the disestablishment of the PARG. The next chapter will elaborate on the findings from the preliminary data, revisit the analysis process that was used to view the data and finally set the scene for the themes that emerged from the data that will then be individually discussed in the ensuing chapters.

CHAPTERS 5: PRELIMINARY DATA, ANALYSIS AND THEMES EMERGING FROM THE DATA

"One thing was certain, that the white kitten had had nothing to do with it ...it was the black kitten's fault entirely."
(Lewis Carroll, Through the Looking Glass)

Introduction

Participatory action research (PAR) has been undertaken to investigate the problem of inconsistent management of pregnant women in the emergency department (ED) and to determine ways that this situation could be improved. The findings of this research will be presented and analysed in chapters five, six, seven and eight of this thesis. Data was generated from a myriad of different sources. These included: focus group discussions with expert clinicians at the hospital research site; individual interviews; existing hospital policies and protocols; retrospective chart audit; and through the discussions, actions and evaluations that the participatory action research group (PARG) members generated over the course of the research. The focus of this chapter will be to present some of the preliminary data and to also set the scene for the three themed results chapters which follow.

Doctors, nurses, midwives and allied health professionals generally work in large organisations or systems, ultimately governed by money and power; Habermas (1984) refers to this world as the 'system' world. Across organisations there will be common targets or aims that need to be achieved, such as reduced lengths of stay, reduced staff overtime and reduced surgical and ED waiting times. Staff working within these organisations will be required to conform to policies and rules that are specific to that organisation. Organisational policies exist for multiple reasons. There are many policies that exist to ensure patient safety and high quality care is provided; these policies are generally written by expert clinicians and reflect direct patient care issues and can be department or ward specific. Other polices may be more widespread and apply to the whole organisation; these are usually written by organisational leaders or administrators with governing budget restrictions in mind; they tend to exist to ensure that the

organisational targets are achieved. That said, policies written about direct patient care issues must still comply with overall organisational policies, rules and available resources. For example, hypothetically, suppose best practice evidence recommends that every person over forty years old have access to a mechanical compression pump for the first twenty four hours postoperatively, to minimise the risk of deep vein thrombosis, but hospital administrators only approve ten machines to be purchased because of budget constraints. At any one time, the organisation may have fifty postoperative people over forty years old requiring a compression pump; the health professional would therefore need to decide who will receive a compression pump and who will not. Ideally, the health professional would like every person to have a compression pump, to be just and fair, but the reality is that there are only enough for ten people and a decision needs to be made as to who these ten people will be. This is an example of conflict between systems and lifeworld, or using the term that Habermas coined ‘colonisation of the lifeworld by systems’; these types of ethical dilemmas occur on a daily basis in healthcare facilities. The point I would like to make here is that it is not one person’s fault (as the opening quote by Lewis Carroll would have you believe) when care is delivered that may not be considered ‘best’ care. Some very ingenious healthcare professionals manipulate the system for the benefit of the person in their care, and examples of this are evident in the data. Generally, however, individuals are striving to do their best in a busy system that imposes many constraints. There is no blame placed on any professional cohort in this thesis; the intent of sharing this data is to give the reader a greater understanding of the complexities of caring for pregnant women in an ED that is situated within a busy hospital setting.

Preliminary data

Preliminary data obtained from the four focus groups, chart audit and relevant departmental and organisational policies has been summarised for brevity and will now be shared.

Focus groups using Nominal Group Technique (NGT)

As mentioned in chapters three and four, focus groups using NGT (Aspinall, et al., 2006; Carney, et al., 1996; Freeman, 2006; Gallagher, et al., 1993; Gaskin, 2003; Harvey & Holmes, 2012; Jamieson, et al., 1998; Perry & Linsley, 2006; Potter, et al., 2004; Van de Ven & Delbecq, 1971, 1972) were conducted with staff from the ED and maternity areas to help generate understanding and knowledge about the topic area. Data obtained from the focus groups was later used as discussion triggers for the PARG meetings. Below is a summary of the key findings from each of the focus groups.

The ED doctors' focus group

The first focus group conducted was the ED doctors' focus group, which was attended by 10 participants. After introductions were made and consent obtained from all participants, the ED physician (consultant) responsible for in-service education and training for the department made this comment:

> *There's three...just to reinforce to the registrars too, the reasons why you are here, you think oh we're part of a focus group, why are we doing this in our teaching time. It is that there is actually some teaching benefits in this, and this is why I elected Nikki's proposal. Umm, one was...subtle and that is to actually watch how Nikki runs a focus group as far as a research tool goes, umm there's always that in the background as well, you watch how other people do things and think about your own research. Umm, number two you've got that SAQ [short answer questions] which we will look at after this, which is about the assessment view of pregnancy, and number three the questions she will go over are very relevant and that is, how do we triage and manage pregnant patients in the ED. So it's quite relevant as we work through these decisions as well... yeah, thanks Nikki.*

I was grateful for these words of support by a senior doctor in the department, and I am sure they were helpful in engaging the other doctors and reinforcing the importance of the research; as mentioned in chapter four, gaining key stakeholder support is vital for the success of research. Nonetheless, I was a little 'terrified' at the words "watch how Nikki runs a focus group" as this was my first attempt and I was actually very nervous.

Thankfully, my years of experience with teaching and working with groups proved helpful in camouflaging my nervousness, and I quickly settled into the group dynamics. Additionally, the use of NGT was very helpful in keeping us on track and eliciting the required information in the allocated timeframe.

The first question asked was ‘what are the commonest reasons for pregnant women to present to the ED?’ In order of priority the ED doctors agreed they were: early pregnancy PV bleeding; hyperemesis; follow-up appointment for ultrasounds; and trauma or conditions which are unrelated to their pregnancy, such as motor vehicle accidents, fractures and asthma. Other items contributed from the group were abdominal pain, urinary tract infections, seeking education and advice about their pregnancy, lack of access to a General Practitioner (GP) and for reassurance. The lack of access to a GP was confirmed in Booz Allen Hamilton’s (2007) study mentioned in chapter two. They revealed that 59% of people attended the ED because the GP was not open, 14% of people could not get an appointment, and 2% of people had difficulty finding a GP in their area that would take new patients.

The second question sought information about ‘when do you consider referring a woman for an obstetric/midwifery review?’ The four perceived priority areas were: admission or follow-up for a confirmed ectopic pregnancy or incomplete miscarriage; PV bleeding plus cervical dilatation, this was considered an indication of impeding birth of the foetus/baby; the third item was hyperemesis accompanied with pylonephritis; and the final ranked item was if the woman was over 24 weeks gestation and her problem was pregnancy related, she would then be transferred to the birth suite. Additional reasons for referring a woman were; abnormal findings on an ultrasound; abnormal blood test results; high risk pregnancies, such as with gestational diabetes or hypertension in pregnancy; premature rupture of membranes; women that present late in pregnancy and have no previous antenatal care; postpartum problems, such as bleeding, wound infection or mastitis; and if a woman presented with a medical or surgical problem they tended to give a courtesy phone call to the obstetrics and gynaecology people, especially if the woman was admitted somewhere in the hospital.

A further question ascertained if hospital or practice polices/guidelines were being used to help make decisions about pregnant women in the ED. The principal guideline that

most ED doctors observed was to send a woman to the birth suite if she was 24 weeks gestation or over. There was also a 'bleeding in early pregnancy' policy in the ED, but a number of the doctors said they did not use it because it was not 'user friendly'. 'Keeping up to date' was an American medical computer database, used by the majority of doctors and regarded as an excellent resource. The Maintenance of Professional Standards (MOPS) was another resource run by the Australian College of Emergency Medicine. This entails exercises and activities which accumulate points required to stay 'accredited' with the College, i.e. professional development. One of the doctors relayed that in the last six months there had been activities which focused on managing bleeding in early pregnancy, and that the next activity pending concerned the interpretation of BetaHCG, the pregnancy hormone. This was considered a valuable source of information, but not all doctors were members of the College and took advantage of these learning opportunities. They also mentioned that they would like more guidelines and education on how to undertake and interpret ultrasound scans, as this was viewed by them as a problem area.

The final question was aimed at gauging the frequency with which pregnant women were seen in the department. The general consensus was approximately five to ten women a day. "It is very common to see pregnant women everyday". This was a substantial number of women, and it was at this point in the research process that I truly realised the significance of this research in potentially transforming women's lives and the lives of doctors, nurses and midwives at this hospital site.

The obstetricians' focus group

The obstetricians' focus group had the smallest number of participants with five in attendance. Of this five, one was a consultant, two were registrars, and two were residents. The first question posed was 'what are the commonest reasons why you are paged/contacted (i.e. referrals are made) by the ED?'. In order of priority the first three items agreed upon were: complications of early pregnancy, such as bleeding and pain ("the most common reason hands down is threatened miscarriage"); hyperemesis or nausea and vomiting; and postnatal reasons, such as bleeding, pain or breast problems, for example mastitis. Other items listed included: admission ("we are often called if the woman requires admission"); phone advice ("frequently called for phone advice – have no problems with this"); and for women over 20 weeks pregnant who are sent directly

to the birth suite. The group generally agreed that not all pregnant women needed to be referred to them - “only if ED staff cannot manage themselves”.

The second question was, ‘when would you want to be, or expect to be asked, to review a pregnant woman in the ED – what types of presentations?’. The two main items ranked were: any circumstances whereby the ED doctor is unable to identify a viable intrauterine pregnancy; and secondly if ectopic pregnancy is suspected. The remaining items were not ranked in any particular order and included: whenever the ED doctor is unsure of what is happening with the woman (“I don’t think there’s any doubt when there’s an emergency situation there’s no issue. I think the issue comes with subtle things, the subtle signs, the subtle ultrasound findings that you need more experience to sort through”); junior ED doctors should consult with senior ED doctors to determine if review is needed by obstetrics; all intensive care admissions (“if a woman is in ICU with hypoxia and is being ventilated, we need to know because it will affect the foetus”); anything that may have implications for the pregnancy; and, finally, some cases are fine to be managed by the ED, but due to lack of knowledge are not always managed appropriately.

A final comment related to the assessment of pregnant women. The obstetric registrar voiced the opinion that ED doctors are reluctant to do vaginal examinations and assess the woman properly before calling them. The opinion was extended to “they seem to lack interest in assessing O&G [Obstetrics and Gynaecology] patients ... that’s the impression I get anyway”. This was an interesting comment and one that I brought up with the PARG once it was established. This is further explored in chapter seven, the knowledge chapter.

A further question concerned what hospital or practice polices/guidelines were consulted when making decisions about pregnant women in the ED. The 20 week rule was first mentioned, followed by the Royal College of Obstetrics and Gynaecology (RCOG) guidelines (“Green Top guidelines”), keeping up to date with recent literature, own experience and knowledge, and the Australian Society Ultrasound Medicine (ASUM) criteria for diagnosing ultrasounds in the first trimester.

The final question pertained to 'how many pregnant women in the ED do you get asked to review in a day?'. The general consensus of the group was somewhere between five and six women a day, or two to three a shift. They were happy to receive 'courtesy' calls about women, even if they were not requesting admission. This way they were kept 'in the loop' if the woman re-presented to ED or if the woman presented at 'clinics'. One doctor commented: "most calls made to the O&G from the ED are necessary; it's more the fact that the assessment is incomplete when they ring. This is not ED registrars, more with junior ED doctors".

The midwives' focus group

The midwives' focus group had seven participants in attendance; a combination of midwives from the birth suite and the maternity ward. The first question asked was 'what are the main reasons for admissions from the ED to birth suite?'. The three most common reasons, ranked in order of perceived importance, were: a pregnant woman who was greater than 20 weeks gestation, regardless of the problem; abdominal pain or labour; and the third item was gastrointestinal or dehydration reasons. Others items listed were: routine cardiotocograph (CTG); asthma; back pain or ligament pain; urinary tract infections; ruptured membranes; falls; domestic violence; bleeding; reduced foetal movements; headaches or increased blood pressure; and being referred because the ED felt that the woman required reassurance that her pregnancy was fine – "ED tend to transfer to exclude that there is anything wrong with the pregnancy".

Following on from this question they were asked 'what makes an appropriate referral from the ED?'. These items were not ranked in order of priority, as they were all deemed as important as each other. The list consisted of: any labour where the woman is 20 weeks gestation or over; ruptured membranes where the woman is 20 weeks gestation or over; decreased foetal movements or PV bleeding for women over 20 weeks gestation; threatened premature labour; increased blood pressure, regardless of gestation; urinary tract infection or lower abdominal pain if the woman is over 20 weeks gestation; blunt trauma to the abdominal region for women over 20 weeks gestation and the triad of increased blood pressure, headache and epigastric pain, as this could indicate preeclampsia. Midwives expressed their willingness to go down to the ED to

assess a woman if requested. “Don’t have any problem with going down and seeing a woman in ED to check that all is well with her and her pregnancy...happy to do this”.

The third question was asked to determine what was considered an inappropriate referral from the ED. Generally, it was agreed that all emergency presentations should be first treated in ED. Furthermore, women who were under 20 weeks gestation suffering from trauma or fractures should be treated in the ED and not transferred to the birth suite. Medical problems, such as asthma, chest pain, or chronic pre-existing medical conditions, should not be transferred to the birth suite as ‘they’ [the birth suite midwives] were not equipped (in both knowledge and resources) to manage these women adequately.

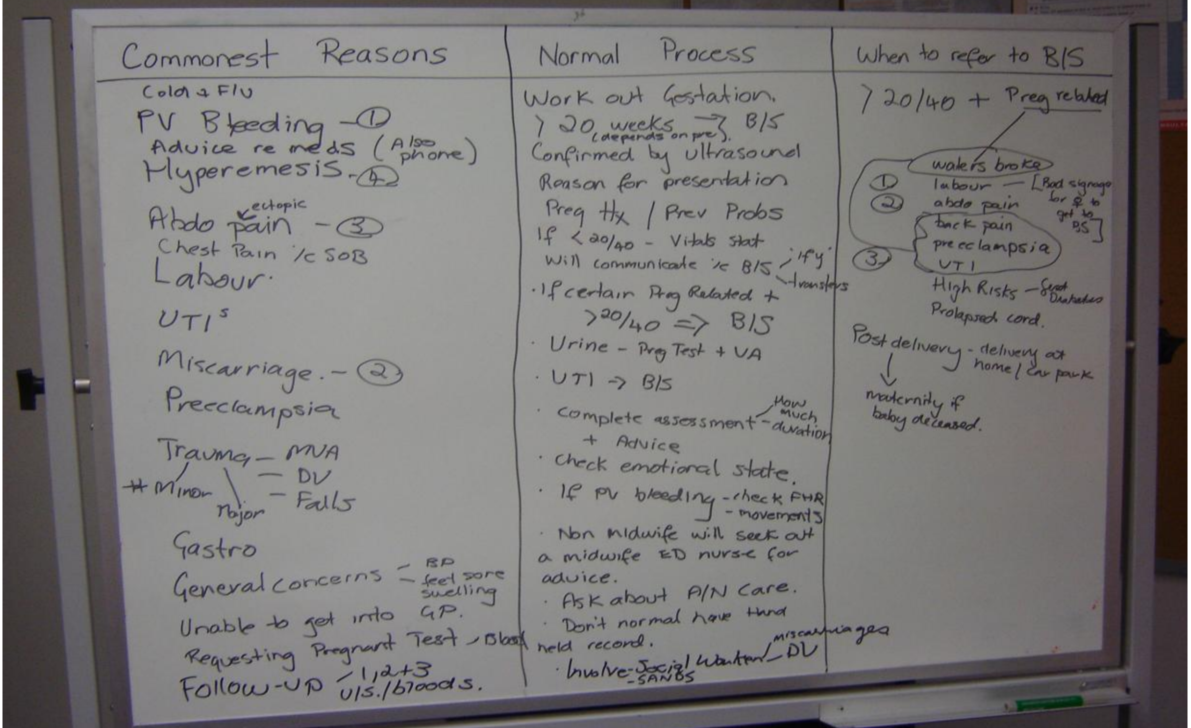
The opposing question to the above one was ‘when do you think you should be asked to review a pregnant woman in ED?’. Once again, the midwives did not rank these items as they felt they were of equal importance. Reinforcement was given again to being happy to attend the ED and review a woman, especially if the woman was over 20 weeks gestation and the ED staff were unsure of the problem. The midwives were also happy to go to ED and check foetal heart rates, especially to allay a woman’s fears if she was apprehensive about her baby’s status. It was also strongly agreed that if the woman was over 24 weeks gestation and it was a pregnancy related concern, she should be immediately transferred to the birth suite without delay. “There is no requirement for the woman to be assessed in the ED in this circumstance”. The final comment concerned miscarriages in the ED: the general consensus was that midwives, or a nurse with gynaecology experience, should care for women who are having a miscarriage. However, they did not agree that the birth suite was the place to be for a miscarriage, as it would be traumatic for the woman hearing live babies being born when she was going through the process of losing her own baby. They also agreed that ED was not the place either. One of the midwives mentioned “we use to have ANDAC [Antenatal Day Assessment Clinic], this helped”. At the time I was unsure of what ANDAC was, apart from the name, and made a note to bring this up with the PARG when it was established. Interestingly, no other midwife disagreed with this comment, so I assumed that ANDAC no longer existed at the hospital. I later discovered it did still exist, except the clinic was operating dysfunctionally and therefore, was not utilised to its full capacity. This will be discussed later in the thesis.

The final two questions concerned what policies/guidelines were used in decision-making and whether they believed inappropriate referrals were made to the birth suite from the ED. Predominately, the 20 week rule was used to judge appropriate transfers/referrals to the birth suite. They also used their midwifery knowledge and experience to make clinical decisions. The majority of the group also believed that inappropriate referrals were made to the birth suite or ward from the ED on a frequent basis. When I asked what frequent meant, they said "at least once a day".

The ED nurses' focus group

The ED nurses' focus group had the largest number of participants with 16 in attendance. Figure 5.1 is a picture of the whiteboard notes that were made during the focus group. There are numbers circled beside some of the items, indicating how the group ranked certain items in terms of perceived importance.

Figure 5.1 The ED nurses' focus group using NGT- Notes on whiteboard



The first question asked was, 'In your experience, what are the commonest reasons for pregnant women to present to the ED?. The four most commonly ranked items were:

PV bleeding; miscarriage; abdominal pain, such as for ectopic pregnancies and urinary tract infections; and hyperemesis. Other items mentioned, but not ranked, were minor trauma, major trauma (falls, domestic violence, motor vehicle accidents), cold and flu symptoms, chest pain with shortness of breath, labour, advice about medications, preeclampsia, gastrointestinal upsets, general concerns ("I took my blood pressure at the chemist and it was high"), unable to get to the GP, follow up visits to get their ultrasound or blood results and wanting to get a pregnancy test. I found the last reason for women presenting surprising, especially when home pregnancy tests are readily available and reasonably cheap. I can only assume, from the woman's perspective, that knowing this information constitutes an emergency for her. Below is an excerpt from one of the nurses in the focus group:

> *Often they will present I think, where as if they weren't pregnant they wouldn't have felt the need to present…do you know what I mean, like it would be a relatively minor trauma but either the ambulance service brings them up because they want them to be checked out because they're pregnant because it's complicating it, or they're concerned themselves...you know they've had relatively minor trauma but I'm pregnant, I want to get it checked out and reassured.*

The second question that was asked was 'what is the normal process you follow when a pregnant woman presents to the department?'. I was aware that the answers varied between participants, depending on the level of ED and triage experience they had. The junior members spoke mainly about getting a set of 'observations', doing a quick assessment and getting help and advice from a more senior ED staff member or midwife from the birth suite. In comparison, senior ED nurses would often ask about foetal movements, antenatal care and would check the foetal heart rate. Nevertheless, there were two general consensus points; firstly, if the woman was over 20 weeks gestation and the presenting problem was pregnancy related they would arrange to send the woman to the birth suite; and secondly, if there was an ED nurse who was also a midwife on duty, they would seek that person out to review the woman.

The third question asked 'when do you refer to the birth suite?'. The ranked priority list of items were: labour ("often women come to the ED triage counter because there is bad

signage and they don’t know how to get up to birth suite directly”); abdominal pain; and lastly, if the woman is over 20 weeks gestation and has a pregnancy related problem (“such as ruptured membranes, back pain, hypertension or urinary tract infection”). Further items included anyone that was considered ‘high risk’ in their pregnancy, such as women with gestational diabetes or prolapsed cord and women who were post-delivery. For example they may have had their baby in the car, ambulance or at home.

A further question was to establish whether policies or guidelines were used when making decisions about the triage and management of pregnant women in the ED. The main guideline mentioned was the “20 week rule, to send to birth suite if pregnancy related”. Other guidelines or decision making tools were: the Australasian Triage Scale (ATS); experience and wisdom; ED in-services on ATS and pregnancy related topics; and the emotional condition of the woman also affected decision making.

When asked ‘what strategies and processes would improve triage and management of pregnant women in the ED?’, the group mentioned: in-services given by midwives on common complaints triaged in the ED; general education on pregnancy, for example how to use the pregnancy wheel to determine gestation; having a midwife working ‘on the floor’; better communication with the birth suite and more teamwork; better understanding of each other’s environment; better signage to the birth suite for women; and, being able to use ANDAC.

The final question tried to gauge the number of pregnant women that presented to the triage desk each day. The group consensus was approximately 15 pregnant women a day would present to the triage desk for assistance. A number of these would immediately be transferred to the birth suite as they were in labour; thereby by-passing the doctors in the ED. This would account for the ED doctors citing the number as lower; they only saw women who remained in the department.

Table 5.1 Summary of focus group findings

ED Doctors	ED Nurses	Obstetricians	Midwives
What are the commonest reasons for pregnant women to present to the ED?		**What are the main reasons pregnant women are referred from the ED?**	
1. Early pregnancy PV bleeding 2. Hyperemesis 3. Follow-up appointments for USS 4. Trauma or conditions which are unrelated to their pregnancy (i.e. motor vehicle accidents, fractures, asthma)	1. Early pregnancy PV bleeding 2. Miscarriage 3. Abdominal pain (i.e. ectopic, urinary tract infection) 4. Hyperemesis	1. Complications of early pregnancy (bleeding, pain, miscarriage) 2. Hyperemesis, nausea & vomiting 3. Postnatal (bleeding, pain and breast problems	1. Pregnant and greater than 20 weeks gestation – regardless of problem 2. Abdominal pain – labour 3. Gastrointestinal - dehydration
What conditions do you refer to obstetrics/birth suite?		**What is an appropriate referral from the ED?**	
1. Admission & follow-up for ectopic or incomplete miscarriage 2. PV bleeding plus cervical dilatation 3. Hyperemesis plus pylonephritis 4. 24 weeks and pregnancy related problem	1. Labour 2. Abdominal pain 3. 20 weeks plus pregnancy related problem (ruptured membranes, back pain, preeclampsia, urinary tract infection	1. Circumstances whereby unable to identify viable intrauterine pregnancy 2. If ectopic pregnancy is suspected	▪ Woman in labour , >20 weeks ▪ Ruptured membranes or PV bleeding > 20 weeks ▪ Decreased foetal movements ▪ Threatened premature labour ▪ Increased BP, headache & epigastric pain
Policies and guidelines used to make clinical decisions about care		**Policies and guidelines used to make clinical decisions about care**	
▪ 24 & > weeks go to birth suite ▪ 'Keeping up to date' database ▪ MOPS ▪ Pearls of wisdom ▪ Bleeding in pregnancy policy	▪ 20 weeks rule – send to birth suite if pregnancy related problem ▪ ATS guidelines ▪ ED in-services ▪ Experience and wisdom ▪ Emotional state of woman	▪ 20 week rule – but should it really be used? ▪ RCOG Green Top guidelines ▪ ASUM criteria ▪ Articles /literature ▪ Baseline knowledge & experience	▪ Predominately the 20 week rule – often used not to the benefit of the woman

Table 5.1 Summary of focus group findings

Concluding remarks

Table 5.1 is a summary of the main findings from the four focus groups. When asked what the most common presentation to the ED was for pregnant women, both the ED doctors and nurses ranked early PV bleeding and hyperemesis in the top four complaints. Correspondingly, the obstetric doctors ranked early pregnancy bleeding and hyperemesis in their top four reasons for pregnant women to be referred. Additionally, abdominal pain was ranked in the top four by the ED nurses, obstetric doctors and midwives. There was significant overlap in responses between the four groups, adding to the reliability and credibility of the findings.

In reference to appropriate consultations and referrals between the ED and obstetric/midwifery departments, there were also areas of overlap. The obstetric doctors definitely wanted to be notified of any woman who was suspected as having an ectopic pregnancy and this was ranked as the number one reason by the ED doctors to refer women for consultation. Further overlaps included women who were over 20 weeks gestation and had either ruptured membranes, hypertension, PV bleeding or were in suspected labour.

A key area of perceived concern was knowledge deficit in the ED, especially among junior doctors, concerning pregnancy related conditions. The obstetric doctors' group highlighted the need for junior ED doctors to consult more with them or senior ED doctors, and to engage more by undertaking assessment tasks, such as PV examinations. The ED doctors also advocated for further education and training so that they could undertake ultrasound scans themselves, as obtaining scans in a timely manner through the radiology department was identified as being problematic. Another concern that was expressed was the application of the '20 week rule'; this seemed to vary a little between the different professional groups. For example, the ED doctors group spoke about the '24 week rule' compared to the other groups which all referred to the '20 week rule'. Overall the information gleaned from the focus groups contributed greatly to increased understanding and further discussion and exploration by the PARG.

Chart audit

As previously mentioned a chart audit is an examination of medical records, to determine what is done, and see if it can be done better (Cheevakasemsook, Chapman, Francis, & Davies, 2006; Gregory & Kaprielian, 2005; Greiver, 2006). Chart audits are also a convenient method to determine current practice before introducing change to practice guidelines (Davies, et al., 2006). In chapter four, process and access issues were discussed; in this chapter the findings of the chart audit will be revealed.

As explained in chapter four, limits needed to be applied to reduce the number of charts to a number that I could reasonably attempt in the timeframe that I had available. Figure 5.2 shows the female presentations per month for the year 2007. The month investigated was August, because this was the month prior to me entering the research site. From Figure 5.2, the month of August had the largest number of female presentations for the year 2007. Even so, it was still not so significantly different to the other months for me not to proceed with the chart audit. After the limits were applied and subsequent to random sampling techniques, as discussed in chapter four, 378 charts remained in the 'audit' group. Figure 5.3 illustrates the presenting complaint categories with the corresponding numbers of charts in each category.

Figure 5.2 Many Happy Returns Hospital female attendances by month for 2007

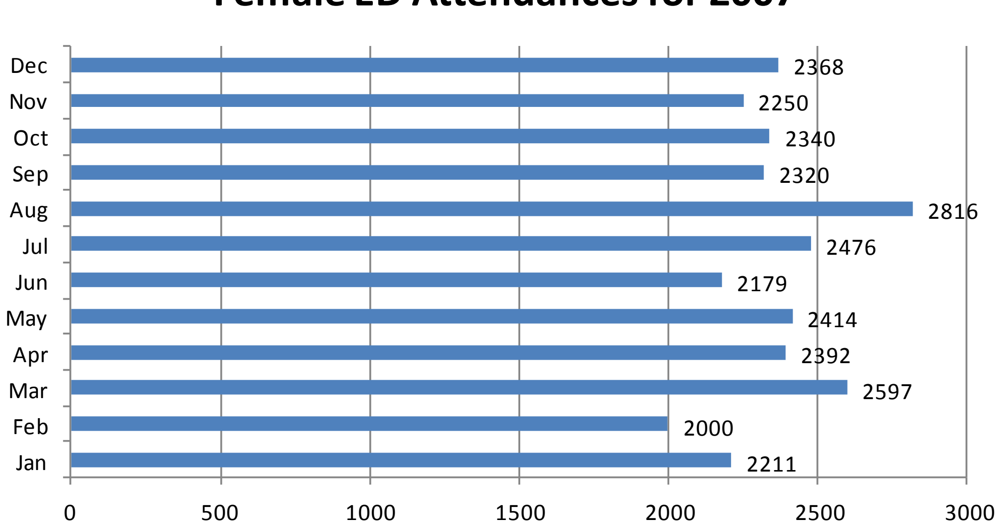
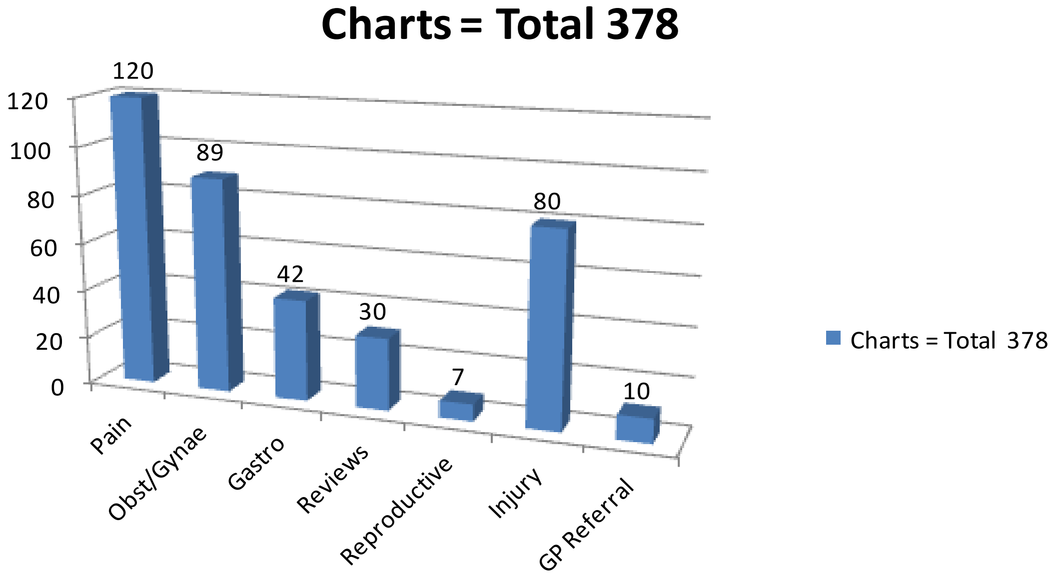


Figure 5.3 Categories and numbers of charts reviewed



General overview

I experienced the many difficulties of conducting a chart audit as soon as I commenced undertaking one. There were at least 20 charts that did not contain any ED notes of the person having attended the department on the day specified. Some of these charts did contain the 'ambulance sheet', so it was confirmed that they attended the ED on the day in question. The medical records staff advised me to look through the loose paperwork that was earmarked for filing, but I did not retrieve any of the documents I was searching for by doing this. There were also two charts dated August 2006, not 2007. I am not sure whether this was an error by the staff member who recorded the information in the chart by writing the wrong year or whether the error lay with the database. With all categories, other than obstetrics/gynaecology, as I was reviewing all of these charts, I went to the next chart identified on the 'Excel randomised list'. This way 40% of charts in each category were still audited. There were also seven charts that identified the person as 'did not wait'; where possible other charts were reviewed in their place.

Whenever I 'pulled a chart' the first thing I would do is look for the section of the chart that was marked ED or outpatient notes. Unfortunately, there is no tick box on any pieces of documentation that alerts you to whether the person is pregnant or not on each

presentation to the ED, so careful consideration of the notes was needed to identify this information. Actually, most times it was obvious from the start of the triage nurses' notes, but occasionally it was not mentioned until much later in the notes as a 'by-product' of the assessment of the woman. The other point worth mentioning is that if the person was admitted to the hospital, the ED notes would sometimes be put in the admission section of the chart. Therefore, it was important to check the entire chart. The quality and the ease to which information was found often depended on the staff member who wrote the notes. Some charts were easy to navigate while others were more challenging.

The main issue with reviewing charts for information is that there was little consistency in the way documentation was done. Some staff wrote very clear and concise notes, letting the reader understand exactly what happened to the person while they were in the department and what the plans were for discharge from the department. Other ED notes were so brief that it was hard to determine what management the person actually received. In some instances, notes in the chart would be made which indicated that certain tests or procedures must have been done in order to come to that conclusion, and yet there was no record of the actual test or procedure in the notes. Alternatively, a test or procedure would be ordered and then no record of the results could be found. Cheevakasemsook et al. (2006) in their study, highlighted the problem with incompleteness in charting and insufficient information. Issues concerning documentation require further research, as it clearly is an ongoing and widespread problem in the health profession.

Presenting complaint categories

The only presenting complaint category where random sampling was not applied was the 'obstetrics/gynaecology' category. It was anticipated that most pregnant women would have been assigned to this category, even if the presenting complaint was not pregnancy related. Unfortunately, one of the charts in this category was not able to be located, even after extensive searching; therefore the actual number of charts reviewed was 88. Of the 88 charts reviewed, 59 were pregnant women attending the ED for care (N=67%); as expected this category did produce a high number of pregnant women. Table 5.2 is a summary of the main findings from all categories.

As revealed in Table 5.2, every presenting complaint category did include pregnant women; and, most were in the 'obstetrics/gynaecology' category, as expected. Next, the 'pain' category included 21 pregnant women, 'injury' category included three pregnant women, 'gastrointestinal' category included four pregnant women, 'reproductive' category included two pregnant women, 'GP referrals' category included two pregnant women and the final category 'reviews', included five pregnant women. Of the charts selected for review, a total of 96 women were identified as being pregnant at the time of being seen in the ED, in August 2007.

Across all categories, the age of pregnant women ranged between 16-41 years and the most commonly occurring gestation age was eight weeks. Therefore, from this sample it can be seen that a high percentage of women who attend the ED are in the early pregnant phase, i.e. first trimester. The most common triage score assigned, using the ATS, was triage category 4 – semi-urgent, and a significant number of women (N=35) reported having PV bleeding as one of their symptoms, along with abdominal pain or cramping (N=38). This concurs with what was discovered from the literature review. Miscarriage is the most common presenting reason (Winicoff & Hinshaw, 2005), with the majority of women that present with vaginal bleeding being haemodynamically stable and therefore triaged as a category 4 (Clinical Update 143, 2011). A number of women (N=16) also experienced nausea and vomiting, either on its own or as an accompanying symptom to PV bleeding and or abdominal pain.

In the 'gastro' category, two out of the four women were diagnosed with hyperemesis gravidarium. In both cases, there was no mention in the notes of a consultation with obstetrics and gynaecology doctors; both women were treated and managed in the ED with intravenous fluid and antiemetics and then discharged home.

Table 5.2 Summary of findings from chart audit

Presenting Complaint Categories →		Obstet/Gynae	Pain	Injury	Gastro	Repro	GP Referrals	Reviews
No. of Charts		88	120	80	42	7	10	30
No. of Pregnant Women		59	21	3	4	2	2	5
Age of Women		17-41 range	16-38 range	21-32 range	17-37 range	32-37 range	31-33 range	18-39 range
Gestation		Mode = 7-8 weeks	Mode= 8 weeks	Median= 18 weeks	Mode-=22 weeks	Mode= 7 weeks	Mode= 26 weeks	Mode= 8 weeks
ATS		Mode = 4	Mode = 4	Mode= 4	Mode= 4	Mode=4 & 5	Mode= 3	Mode= 4
Complaint as Documented by Triage Nurse	**PV Bleeding**	34	0	0	0	1	0	0
	Abdo Pain	26	11	0	0	0	1	0
	Nausea & Vomiting	6	6	0	3	0	1	0
	Other	Hypertension, 'unwell', flu-type symptoms, fever	Migraine, headaches, fainted, cough/chest pain, back pain	Right foot injury, slipped & fell, back injury	Hypertension flu, viral infection	Wound infection	Umbilical hernia, fever	Review USS results, recall for Anti-D
Diagnostic Tests	**BHCG**	34	7	1	2	1	2	0
	USS	27, plus 6 ordered for the following day	5	0	0	1	2	2
	PV Exam	27	1	0	0	1	0	0
	Other	Bloods, urinalysis, CTG	Bloods, urinalysis, MSU, CTG	X-ray, FHR	Bloods	Bloods, urinalysis	Bloods, urinalysis	None listed
Consultations &/or Referrals	**Discussed with O&G Doctor**	20	3	0	0	1	0	0
	Discussed with Senior ED Doctor	2	4	1	0	0	0	0
	Seen by O&G Doctor	9	2	0	1	1	1	0
	Not documented	20	12	2	3	0	1	2

Key: Mode – is the number that occurs most often in a sequence. Median – is the middle value of the data set when arranged in ascending order. BHCG is a blood test to measure Human Chorionic Gonadotropin, the pregnancy hormone. USS- Ultrasound Scan. PV - Per Vaginal. CTG – Cardiotocograph.

Table 5.2 Summary of findings from chart audit

The third case in this category was diagnosed as a ‘viral infection’, with the woman receiving intravenous fluid and antiemetics (with a good result) and then discharged home. The final case was a woman who presented with hypertension; she was 21 weeks gestation. I am not sure why her presentation was assigned to the ‘gastro’ category as the women did not complain of nausea or vomiting or gastrointestinal symptoms. She arrived by ambulance at 7.00 pm with a primary complaint of blood pressure, which was documented as 240/140 mmHg. Blood was taken, medication given to reduce blood pressure, and the obstetrics and gynaecology registrar was contacted. The obstetrics registrar reviewed the woman in ED and arranged for her to be transferred to the birth suite. Unfortunately, the notes revealed a sad ending to this case with the woman giving birth 5 days later, via a hysterotomy (an incision into the uterus), to a live male baby weighing 300 grams. Respirations were not able to be maintained and it was recorded in the chart as a neonatal death at birth. Hypertension in pregnancy was listed in the literature review chapter as one of the leading causes of maternal death in Australia (Sullivan, et al., 2008). This case resulted in a neonatal death, but the mother, albeit very sick, survived.

Diagnostic tests, such as blood tests (full blood count, electrolytes, liver function test) and urinalysis were consistently ordered across all presenting categories for most women. Documented notes indicated that only one x-ray was ordered, which was for a woman who had sustained an injury to her right foot. Not surprisingly, most of the diagnostic tests associated with pregnancy (i.e. BetaHCG, ultrasound scan, PV examination) were ordered in the obstetric/gynaecology presenting complaint category. It was interesting to note there were 29 PV examinations (27 from the obstetrics and gynaecology category), two of which were documented as being done by the obstetrics and gynaecology registrar; I assume the remaining 27 PV examinations were done by the ED doctors, but this was not specifically stated. This is interesting because the obstetrics and gynaecology doctors’ focus group identified it as an issue they had with ED doctors. They believed that the ED doctors hardly ever did PV examinations and instead relied on them [obstetrics and gynaecology doctors] to do it. Therefore, out of 96 pregnant women that were seen in August 2007, 29 of them had a PV examination completed. Certainly, not all of the 96 women would have required a PV examination, especially if presenting with non-pregnancy related problems (flu-like symptoms) and even those with pregnancy related problems, a PV examination may not have been

appropriate. There was also one chart where a woman had ‘declined’ a PV examination. Therefore, it is hard to conclude whether the ED doctors are not doing this test often enough, as was the claim by the obstetrics and gynaecology doctors. What I can say from the data obtained from the chart audit, is that PV examinations were being done in the ED and most appeared to be done by the ED doctors.

Consultations and referrals to O&G doctors were not well documented in the charts. In 40 charts there was no comment made about whether a discussion occurred with the O&G doctors or whether a request for the woman to be seen was made. In only two charts was it specifically documented that an “O&G consult was not required”. The charts revealed that: on 24 occasions an ED doctor discussed the woman’s care with an O&G doctor; on 14 occasions an O&G doctor saw the woman in the ED; and, on seven occasions advice was sought from a senior ED physician pertaining to the management of the woman. Table 5.2 gives a summary of these results.

In the ‘reviews’ category, three out of the five presentations were women returning to the ED to receive their ultrasound results. The women were given a request form from the ED the previous day/night in order to have an ultrasound when the radiology department next opened. This is something I will discuss later in the thesis – the radiology department exercises significant power and often decides when they are available to conduct tests – I refer to this as radiology department-centred care. I would have assumed that these reviews should have been advised to go to the Antenatal Day Assessment Clinic (ANDAC) which is situated in the antenatal clinics area of the hospital. For various reasons (which will also be discussed later) this clinic was not functioning to its intended capacity. In fact, out of all 96 charts reviewed, there were only four referrals made to ANDAC. This service was not being used as it was intended; this was a discussion point I brought up with the PARG, and one that will be discussed later in the thesis.

Overall, it appeared from the chart audit that most cases were being managed well in the ED, albeit not always in consultation with the O&G department. With that said, there were a few cases that were of interest and will briefly be mentioned. The first case is a 23 year old woman who was brought in by the ambulance; she was 10 weeks pregnant. The notes confirmed this was her fourth pregnancy, but she only had one birth.

Therefore, three of her pregnancies did not result in a child – I assume miscarriages occurred, but this was not stated in her notes. The notes stated that the woman advised the triage nurse that she had a private ultrasound three weeks previously which “showed fetal demise”. At the time, the woman did not return to her GP, but went home and planned to manage ‘it’ conservatively. The notes in the chart stated “Pt fed up with it all and wants it all over”. The woman had not experienced any PV bleeding or passed any products of conception in the last three weeks. According to the woman’s chart, no consultation occurred with the O&G department for this presentation. A diagnosis of ‘missed miscarriage’ was made and she was discharged home to return the following day to the ED, at which time she would be assessed by the O&G department. She was advised not to eat or drink anything and given another ultrasound request form to have completed the following day. This sounds like they were preparing her for a dilatation and curettage to remove the foetus and products of conception. I checked the rest of this woman’s chart and there was no documentation following this episode. According to the chart she never returned to the hospital. This case concerned me; why was the woman not see by the O&G team on her first presentation?; why, when she was distressed (psychologically, emotionally), was she sent home still with the knowledge that her dead baby was inside her?; why was the ultrasound not done immediately to confirm the diagnosis? This woman was clearly distressed to arrive by ambulance (which often people do, as they perceive they will get help more quickly) and the words documented in her chart, “Pt fed up with it all and wants it all over”. I do not know the outcome of this case, but I hope the woman received the care that she needed elsewhere.

Another case involved a 38 year old woman who was 16 weeks pregnant. She had eight previous pregnancies and five live births. Her notes stated that she had a history of hypertension and preeclampsia and was ‘unwell’. There was no consultation with the O&G department documented, even though this presentation definitely warranted one. The notes stated that the woman was sent home with a referral to her GP and advised to return if she was concerned. There was a record of a live birth some months later in her chart, so the outcome was good in this instance.

The final case involved a 30 year old woman who presented to the triage desk complaining of abdominal and back pain. She denied being pregnant, but on examination was estimated to be 38 weeks pregnant, and in labour. This woman was

immediately transferred to the birth suite where she subsequently birthed a live female baby. As Lyons (2010) and McLoughlin (2001) claim, unexpected birth is a anxiety provoking experience for staff in the ED. This case was managed well with the woman being triaged, assessed and transferred in a timely manner to the birth suite. This resulted in experienced midwives being with the woman and supporting her throughout her birth experience. It is clear in this case that the woman, who claimed not to know she was pregnant, required intensive support during this experience. The birth suite with experienced midwives and obstetric doctors was the best place for this support and care to be offered. Hence, this case was managed well considering the circumstances.

Limitations and summary

Overall it is difficult to make many conclusions based on the chart audit. The documentation was too unreliable to affirm, with any certainty, whether the care was appropriate and comprehensive or whether alternative care may have been a better option. There were a number of limitations to the chart audit. Firstly, I did not review all the female presentations for August 2007, but instead decided to limit the sample to a number that I could do myself within a two to three week timeframe. Doing this may have meant I missed some important data. Furthermore, because of the frequent poor quality of documentation, I found myself 'joining the dots' at times. This was achieved using my experience as an emergency nurse and midwife. For example, if it was written in the chart that the woman had a cardiotocograph (CTG), I would assume she was either transferred to the birth suite for this assessment or a midwife brought the CTG machine to the ED and performed the tracing. The former is the most likely scenario. The ED does not have these machines and it is unlikely that an ED staff member would know how to do a CTG unless they had midwifery or obstetrics experience. Because it was not clearly documented, I found myself unconsciously making these connections and assumptions.

In summary, the following conclusions can be made from the sample chart audit data:

- There were 96 pregnant women that presented to the ED during the month of August 2007.
- Of this, 59 women presented in the 'obstetrics/gynaecology' category, as their primary presenting complaint.

- Most of the presentations were early pregnancy related concerns, such as PV bleeding and abdominal pain or cramping (i.e. threatened miscarriage).
- The most frequently used ATS triage category, was category 4. There were no triage category 1 presentations during August 2007.
- Diagnostic tests, such as bloods, urinalysis, ultrasound scans and vaginal examinations were often used to assist with assessment and diagnosis.
- Less than half of the women required, according to the ED attending doctor, an obstetrics and gynaecology consultation.

Relevant hospital policy documents

The main written policy was the: *Many Happy Returns* Hospital, ED Guidelines for 'Out of Hours (1700-0800 hours) guidelines for ordering USS for bleeding and/or pain in early pregnancy (1st trimester)'. The ED protocol for bleeding in early pregnancy was embedded in this guideline; it was not a separate document, as I had originally assumed it would be. The document outlined assessment criteria by which to make decisions about which women should have ultrasound scans ordered and if a scan was required which women needed to remain in the department or which were able to be discharged home pending a scan the following day. The second part of the policy specifically discussed the management for bleeding in early pregnancy. The policy stipulated that if the woman was haemodynamically stable then she was to have a history and examination taken, including a PV examination, and a transvaginal ultrasound scan. The results of the examination and scan would determine further management. If she was haemodynamically unstable, the woman was to be treated in the acute area of the ED and have a full work-up of bloods, ultrasound scan and be reviewed by O&G registrar. Initial feedback from the ED doctors' focus group reflected that not many doctors referred to the policy because it was not 'user friendly'. Therefore, this policy was taken to the PARG to review and to make recommendations.

The '*20 week*' policy was also sought for review. Even though every focus group was aware of this policy, there were only a few people that had actually seen the policy in print. I found it difficult to obtain a copy, with most staff unable to tell me where to go to source a copy. I finally got a copy by asking one of the stakeholders at the hospital site. The policy was first established in 2001, with the opening of the new hospital. The

policy was divided into two sections; the first was "Patients less than 20 weeks gestation" and the second was "Patients of 20 weeks gestation or more..." (Townsville Health Service District, 2001, p. 1). The policy outlined that if a woman was less than 20 weeks she should present to the ED to be reviewed in the first instance. The ED medical staff would then make the decision as to whether the O&G registrar needed to be involved. Under section two, a woman 20 weeks gestation or more with a pregnancy related problem, would be advised to present directly to the birth suite. The policy stated that a woman who is "20 weeks pregnant or more brought in by ambulance to the Emergency Department, will be taken straight to Birth Suite by the ambulance officers" (p. 2). It also outlined that a midwife from the birth suite would retrieve the woman from the ED and if they were unable to do so, they would contact the maternity ward and request a midwife from the ward to retrieve the woman to the birth suite on their behalf. Upon reading the policy I understood why, in general, staff were so particular about the 20 week rule; it clearly stated that in cases of 20 weeks or less the woman was to be seen in the ED, and 20 weeks or more to be transferred to the birth suite for care. It appeared for most staff as a simple black and white choice; while others felt that it was not as simple as just following the 20 week rule. There was extensive discussion about the '20 week rule' in the focus groups and, as evident from the below excerpt, one O&G registrar felt rather strongly about how the rule was applied in practice.

> *The problem is...the biggest problem we have is the sticklers who go oh she's 19 weeks and 6 days, she's not coming to birth suite, if she's 20 weeks and one day she's not to stay in the emergency department. Strew you, okay. Sort out one place or the other, decide where you think she's going to be better managed okay...too rigid gestation parameters with referral at 20 weeks. You get birth suite saying we don't want a woman at 19 weeks plus 6 days, which would be far better off being cared for in the birth suite and not ED. The other side is the ED saying a 20 week plus 2 days should be in the birth suite when they might be far better off in the ED. Too many people are stupid about the rule of 20 weeks okay. It's on both sides of the equation. I'm not saying it's only the emergency department because birth suite is exactly the same. Rather than using commonsense or putting the woman where she would be best cared for, they are using the 20 week protocol rigidly. In that grey area around 20 weeks you need to be able to use your judgement on where it would be best for the woman.*

It was obvious from the focus group discussions and reading the policy that this was something that needed further examination; I made a note in my journal to definitely raise this with the PARG once it was established.

The women's stories

To understand people's experiences and perspectives Stringer and Genat (2004) advocate interviews as a valuable tool in action research. The interviews with women who had attended the ED while pregnant were semi-structured, recorded and transcribed. Six women were interviewed over the course of 21 months with the first five interviews being conducted within the first 13 months of the research commencing. Table 5.3 illustrates the interview dates and provides a brief overview of why the woman attended the ED during her pregnancy. As seen in Table 5.3 four out of the six women interviewed presented to the ED with a pregnancy related problem and the most common pregnancy related problem was early PV bleeding or suspected miscarriage. This supports the ED doctors and nurses' focus groups summation, that the most common problem that pregnant women presented to the department with, was early PV bleeding/miscarriage.

In accordance with ethical protocols, and as mentioned in chapter four, each woman was given an information sheet (Appendix F) to read prior to the interview commencing and informed consent was obtained.

Belinda's story

I knew Belinda as a 'basketball mum' to one of the children in my daughter's team. One day when Belinda and I were talking she enquired about my research. When I explained the topic to her she was very interested as she had attended the ED herself when she was 34 weeks pregnant with her fourth child; this was approximately four to five months previously. She asked if she could share her story with me, which I readily accepted. An interview date was organised for the following week.

The following week, during the interview, Belinda informed me that she had rung the ambulance after she injured her back from bending over to pick an object up at home; she was 34 weeks pregnant at the time. She said she knew instinctively that she had 'pulled a muscle' and could not move. She had previously sustained a similar injury some years earlier and recognised it as the same type of pain. She was unable to drive because the pain was severe, and she made the decision to ring for an ambulance.

Table 5.3 Overview of the women who were interviewed

Women's Name (Pseudonym)	Interview Date & Time	Reason for Presentation to the ED	Member Check
Belinda	20 September 2007 8.30am	*Non-pregnancy related.* Pulled a muscle in her back while bending and could not move without severe pain.	Yes
Sue	18 January 2008 9.15am	*Pregnancy related.* PV bleeding at 7 weeks gestation.	Yes
Jodie	07 February 2008 10.00am	*Pregnancy related.* Severe hyperemesis gravidarum.	Yes
Kim	9 June 2008 3.00pm	*Pregnancy related.* PV bleeding and pain at 11 weeks gestation. Early foetal demise.	Yes
Cathy	14 October 2008 9.00am	*Pregnancy related.* PV bleeding; vomiting and feeling unwell. Incomplete miscarriage.	Yes
Laura	04 June 2009 1.30pm	*Non-pregnancy related.* Had a fall and sustained a painful hand injury.	Yes

On arrival at the hospital the ambulance officers were advised by the ED triage nurse to take Belinda directly to the birth suite, which they did. Belinda was attached to a foetal monitor and was told that there was no problem with her pregnancy. Belinda once again tried to tell the staff that she knew that her pregnancy was fine; her problem was that she had pulled a muscle in her back and that she was in a lot of pain. She then waited to be seen by a doctor. Belinda was given *Panadol* for pain relief, but this did not help and she remained in significant pain. Her private obstetrician was eventually contacted and he gave a phone order for oral *Valium* to be given and requested that she be transferred to the [name removed to protect identity] Private Hospital for pain management overnight. Belinda did not receive *Valium* as it was not a drug the birth suite had in their drug cupboard, instead she was told that they would order the drug from the hospital pharmacy and give it to her as soon as it arrived. Belinda was advised by the birth suite staff to ring a family member to take her to the private hospital as this would be quicker than waiting for an ambulance transfer. When Belinda left the hospital she still had severe back pain, had not been given any *Valium*, as it still had not arrived from the pharmacy, and felt that she had not been listened too or cared for during the five to six hours she had been at the hospital.

Sue's story

I met Sue through the Stillbirth and Neonatal Death Society (SANDS). She had heard about the research through the coordinator of SANDS and wanted to share her story with me. Sue's story is about her role as a support person for a friend who sadly miscarried while being cared for in the ED.

Sue's story began about 18 months prior to the interview. Her friend, who was seven weeks pregnant, phoned to say that she had noticed some light spotting of blood. Sue had previously had six miscarriages herself, the last being only a month prior to our interview, and knew what the options were from personal experience. Sue counselled her friend to stay at home and see what happens, or she could ring the hospital and see what they advise.

> *...basically tried to reassure her that nothing she had done had caused it and nothing she could do was going to prevent it. You could sit there and lie down*

all day, but if it's going to happen it's going to happen, sadly, so I said you choose what you want to do, umm and if you need me let me know. (Sue, p. 1, 36-41)

Her friend decided to go to the ED and asked Sue to accompany her. Sue's friend underwent a number of tests and procedures with no explanations given to her by the ED staff. Her friend was constantly asking her, 'why do I need to do this?', or 'why are they taking blood?' Sue answered the best that she could, but she wasn't a doctor and wasn't sure whether her explanations were accurate or not. They rotated between the waiting room, the bench seat near the triage station and a bed if 'private' procedures were being performed. Sue's friend was having increasingly worse abdominal pain and feared the bleeding was getting worse; she was instructed to walk around to the radiology department to have an ultrasound scan.

Sue's friend was very distraught when she returned to the ED following the ultrasound scan. She was advised that she would need to have a dilatation and curettage procedure and that she would need to stay overnight in the short stay area of ED, and have the procedure done the following day. The following morning the O&G doctor came to see her and asked how she was. Sue's friend said she was okay and was then informed she could go home, there was no need for the procedure. She did not receive any information or follow-up appointments. She was grieving for the loss of her baby and she had spent the night alone on a hospital stretcher, rather than with her family. This experience was made more difficult due to poor communication, lack of privacy and no follow-up care being offered.

Jodie's story

Jodie made contact with me through email after seeing my recruitment poster in the ED waiting room and she was also informed of the research by one of the ED, PARG members during her last visit to the department. Her email stated:

I attended the ed several times in December 2007 and January 2008, whilst pregnant. If i can be of any use, i would be happy to talk with you. Unfortunately

my baby died, so i am no longer pregnant, i am not sure if that affects things. (Jodie, Email Correspondence, 05 February 2008)

I responded to Jodie's email immediately, sending my sincere condolences for the loss of her baby with a brief explanation of the aims of the research, the information sheet for consumer interviews and confirmation of ethical approval for the research. Later that day, Jodie emailed her phone number and I contacted her via this means and established an interview date that was convenient to both our schedules.

Jodie was in her mid to late thirties and had been pregnant seven times. She had four children and had experienced a number of miscarriages. Jodie had previously lived in England before arriving in Australia, approximately two years prior to the interview. Jodie mentioned a number of times how England had a much better system for dealing with early pregnancy complaints. There were units set up for women to attend, rather than having to go to the ED. Jodie suffered from hyperemesis gravidarium, a debilitating condition caused by excessive nausea and vomiting in pregnancy. She had experienced hyperemesis with all of her previous pregnancies and knew exactly what it was and what management worked best for her. Jodie attended the ED with hyperemesis on approximately seven different occasions, over a space of about five weeks. Even though she does not blame anyone for the loss of her baby, she felt the system was flawed and she was not able to get the care that she needed. "There doesn't seem to be a better system here...a hopeless system for women with hyperemesis to be quite honest" (Jodie, p.1, 23 & 31-32).

Kim's story

Kim was a young woman in her early twenties. During a recent visit to the ED she was informed of the study by one of the PARG members and given a recruitment poster. She subsequently contacted me and we arranged to meet at her home to conduct the interview. Kim's story started a few months prior to our interview. She was nine weeks pregnant and had been for a routine ultrasound scan; on the form she saw the words "?blighted ovum" written. She was referred to the GP following the scan and was told that her pregnancy levels needed to be checked as the GP thought her dates must have been wrong. The GP then made another appointment for Kim to have a further

ultrasound at 11 weeks. At this time the sonographer informed Kim that she had a blighted ovum. Kim's description of this was "the sac forms, but there is no baby inside of it" (Kim, p. 1, 24-25). Kim returned to her GP and at this time the GP confirmed the diagnosis and informed Kim that "it would just pass through in my period" (Kim, p. 7, 325-326). Four days later, while at work, Kim started to bleed very heavily. Kim returned home, but found the abdominal pain too severe to tolerate and summoned her mother, who took her to the ED. Kim's partner was away with work at the time. Upon arrival at the ED she was triaged and seen within five minutes by an ED doctor. A consultation was arranged with the O&G doctor and it was confirmed that she was having a miscarriage. Kim was advised that she would need a dilatation and curettage (D&C) and this was arranged for the following day. Kim was discharged about 9.30 pm and advised to return in the morning. During the night Kim awoke with severe abdominal pain again and very heavy bleeding. Her mother once again drove her to the ED. She was given pain relief and re-assessed. She remained in the ED until the following morning when she went for the D&C procedure. Kim recalls the day clearly, it was Mother's Day. "My poor, my poor mum, but um yes that was fine...and I was probably in there about four hours" (Kim, p. 2, 81-83).

Cathy's story

Cathy was in her mid-thirties and had three children. Cathy was a mother to one of my daughter's school friends and we talked occasionally while waiting for our children to come out of class. On one occasion, my PhD came up as a topic of conversation and Cathy informed me that she experienced a miscarriage the previous year and needed to attend the ED for care. She was happy to talk with me about her experience, so an interview date was scheduled for the following week at my home, at Cathy's request. Before the interview commenced, Cathy informed me that she was pregnant again and had not experienced any problems so far with the pregnancy. She seemed very happy. Subsequent to this interview, I saw Cathy a number of times at the school with her beautiful new baby.

Cathy's story started when she was holidaying away from home with her children. She was seven weeks pregnant at the time and experienced a large PV bleed and assumed she had miscarried. She went to a GP who performed a vaginal examination and

informed her that her cervix was dilated and she had miscarried. She experienced no more bleeding, a part from that one day of very heavy bleeding. When she returned home, a couple days later, she went to her own GP because she was feeling generally unwell; the GP sent her for an ultrasound. To her great surprise a heartbeat was found on ultrasound and she was referred to a private obstetrician. A few days later when she saw the obstetrician, there was no heart beat found. Cathy had progressively become sicker with vomiting, was not able to eat and had started feeling faint. As Cathy did not have private health insurance, the obstetrician arranged a transfer to the ED.

After some time Cathy was informed that she would need a D&C and that it would have to be done that day. Cathy recalls that this was all happening in the middle of her family moving house, and the removalist was expected at her home the following day at 7 am in the morning. She was anxious for it to be over so that she could return home with her husband and prepare for the next day. The time of the procedure kept being delayed and finally it was confirmed for 10.30 pm that evening. The obstetric registrar, who had seen Cathy in the ED, confirmed that she could still go home following the procedure – this would be around midnight. Cathy remained in the ED awaiting the procedure. At 10.30 pm the obstetric registrar came to see Cathy again to inform her that the procedure was cancelled as the anaesthist "won't stay to do any more ops" (Cathy, p. 6, 289-290). Cathy was discharged home with instructions to return two days later at 7 am to the day surgery unit where she would be able to have the procedure done. When Cathy returned for the procedure she waited a number of hours in the day surgery waiting room to be informed that her name was not down on any of the surgery lists. She was understandably very distress by this whole ordeal. After sometime, she was informed that her name had now been added to the 'fast track' surgery list. She went into have the procedure at 5.30 pm that afternoon. Cathy experienced a difficult three days waiting for the procedure to be done. "...emotionally, mentally to know that it's there is bad enough. You know, you don't want that inside of you" (Cathy, p. 19, 935-936).

Laura's story

Laura telephoned me after seeing one of the recruitment posters in the ED to share her experience when she attended the ED pregnant, in 2006. We arranged to meet at her

home a few days later. She was 30 weeks pregnant at the time and had a fall when she was having a nice afternoon at the beach with her family. She sustained a painful injury to her hand from extending her arm to help break her fall; her husband took her to the ED to have her hand reviewed. She recalls the experience as a positive one (a part from the painful hand). She was triaged and seen quickly. She recalls the triage nurse asking specifically if she had fallen on her stomach or whether she was concerned about the baby. The ED nurses were happy to take her up to the birth suite to have the baby checked if she was concerned; she felt they were very thoughtful. When she was taken around to have an x-ray on her hand, she was given a lead apron to wear and everyone was very attentive towards her. Linda contacted me to specifically share her positive story and thank the ED for their care.

Analysis revisited

In chapter three the theoretical framework was made known that would be used to analyse the data obtained throughout this research. To save the reader having to retrace to chapter three, the figures that illustrated Habermas' theory of communicative action (TCA) (Figure 5.4) and the table that listed Habermas' three knowledge-constitutive interests (KCI); technical, practical and emancipatory (Table 5.4) have been re-supplied. As stated in chapter three, Kemmis' (2006) definition of Habermas' three types of KCI have been used. The findings provided in the following three themed chapters, explain what I believe to be links between Habermas' TCA and theory of KCI.

A brief reminder will be given of Habermas' three KCI. Technical knowledge is orientated essentially towards functional improvement measured in terms of its success in changing particular outcomes of practices. Practical knowledge has technical aspirations for change, but it also aims to inform the practical decision making of clinicians. Finally, emancipatory (or critical) knowledge aims not only at improving outcomes and improving the self-understandings of clinicians, but also at assisting clinicians to arrive at a critique of their social or educational work and work settings.

A blanket statement which applies to every themed chapter is that all three types of KCI were evident on a continuum at different times of the research. There were occasions when communication transpired purely for technical aspirations, as a means to an end.

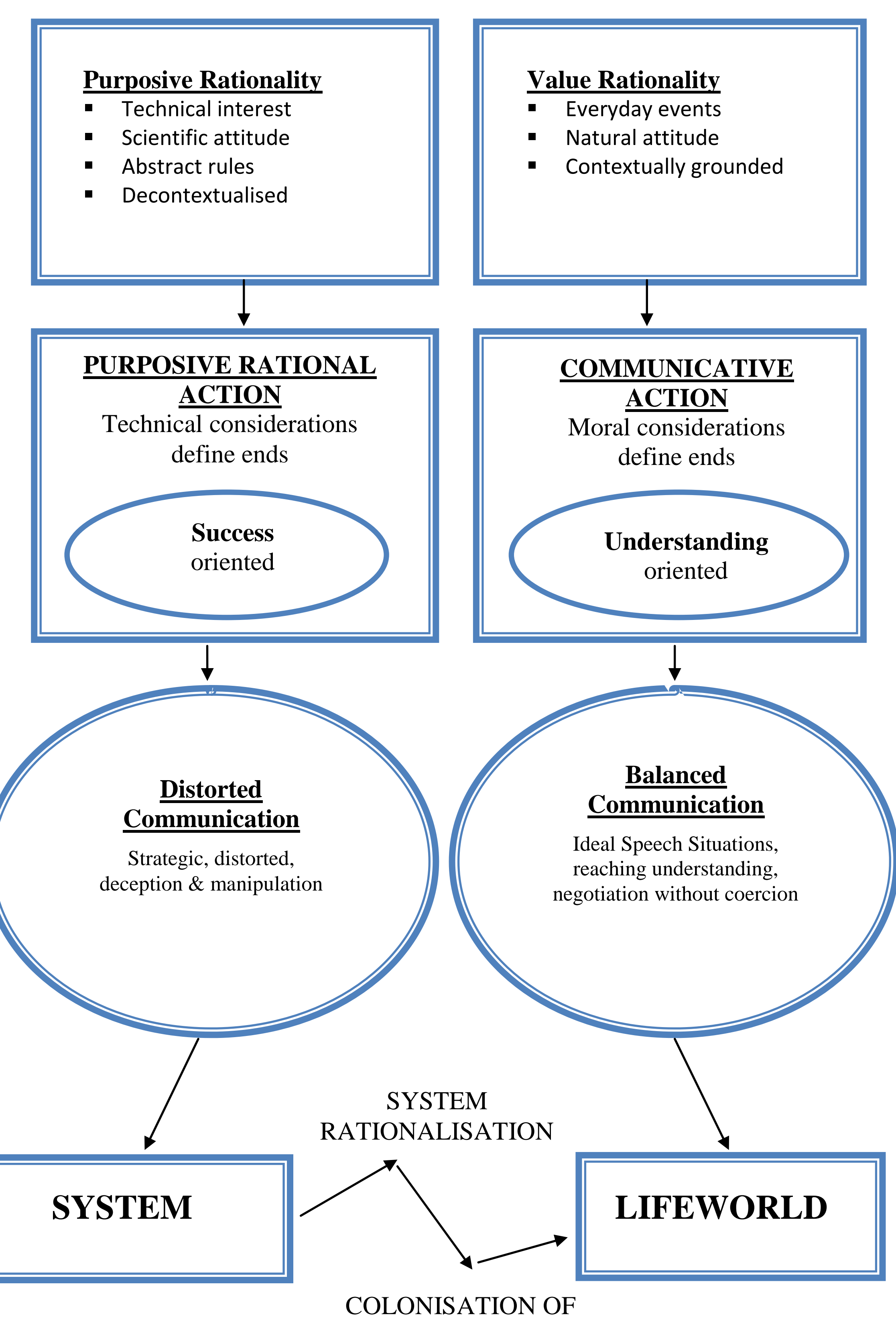
At other times there was a definite intention by individuals to try and reach a mutual, intersubjective understanding of the phenomena under discussion, which constituted a practical cognitive interest. Finally, there were also interactions that were initiated with intent to bring about emancipation, and I believe that on these occasions ideal speech situations were achieved. My aim is not necessarily to pigeonhole the interactions of individual participants and/or the PARG; this would be impossible due to the many different types of interactions that occurred along the knowledge continuum. The way in which people responded at different times depended on internal and external motivating forces and their own agenda. The examples I share are more to demonstrate, where possible, that all three types of cognitive interests were evident within this research.

Table 5.4 Habermas' KCI Interest

Interest	Knowledge	Medium	Science
Technical	Instrumental (casual explanation)	Work	Empirical-analytic or natural sciences
Practical	Practical (understanding)	Language	Hermeneutic or 'interpretive' sciences
Emancipatory	Emancipatory (reflection)	Power	Critical sciences

Source: Carr & Kemmis (1986, p. 136).

Figure 5.4 Habermas' TCA



Source: Adapted from (Barry, et al., 2001, p. 488)

Themes emerging from the data

The PARG did reach consensus on indentifying three main themes from the data; these themes form the basis of the following three chapters. The first theme (or area of concern) was communication, specifically the use of language and pregnant women feeling that they were not being listened to. Furthermore, there was a perceived lack of communication between the different departments in the hospital. The second theme was knowledge deficits among clinicians regarding the care of pregnant women in the ED. Staff had different levels of knowledge about obstetric/midwifery care, which often depended on their level of education and experience. As a result, management would be inconsistent and often relied on which staff members were working. The final theme concerned the concept of 'care' of pregnant women in the ED. The nature of the ED is that life threatening care must take priority, this is usually physiological care, which I am sure no-one would argue with. The majority of pregnant women that attend the ED do so with complaints of a non life-threatening nature. The most common reason for attendance at the ED, as demonstrated by the literature and the study results, is threatened miscarriage or vaginal bleeding in early pregnancy. The loss of a baby can be a devastating and tragic experience for a woman and her partner, and yet in an extremely busy ED where staff are managing more urgent cases and dealing with access block, these women are often left in crowded waiting rooms trying *not* to grieve or cry because everyone will look at them. They are then often sent home with little information or follow-up care. When the PARG developed changes to improve communication, knowledge and care, these areas of priority (i.e. vaginal bleeding and loss of a baby) were targeted.

Conclusion

This chapter has highlighted the data findings from four focus groups that were conducted, a chart audit that was undertaken in the preliminary stages of this research and information retrieved from relevant policy documents pertaining to the care of pregnant women in the ED. The findings confirm there are a significant number of pregnant women that present to the ED with both pregnancy related and non-pregnancy related problems each day. Of these problems, the most common identified was

bleeding in early pregnancy and subsequent miscarriage. Further to this, a brief synopsis of the stories of six women that were interviewed provides context for excerpts that will be discussed in the following chapters. The PARG reached consensus on identifying three main themes in the data. These themes were communication, knowledge and care. Findings associated with the first of these themes, communication, will now be analysed with reference to Habermas' TCA and theory of KCI.

CHAPTER 6: COMMUNICATION

"...There's glory for you!"
"I don't know what you mean by glory", Alice said.
"...I meant, there's a nice knock-down argument for you!"
"But glory doesn't mean a nice knock-down argument", Alice objected.
"When I use a word", Humpty Dumpty said, in a rather scornful tone,
"it means just what I choose it to mean – neither more nor less"
(Lewis Carroll, Through the Looking Glass)

Introduction

In my experience this is seldom correct. As Street (1991, p. 9) so aptly states, in reference to the opening quote of this chapter, "unlike Humpty Dumpty, we do not have the luxury of making our language mean what we choose to make it mean".

> Language...is not conceptualised as a transparent window to the world but rather constitutes a symbolic medium that actively shapes and transforms the world. That is, language is the primary medium through which individuals socially construct their knowledge of the real. Knowledge in this view is a social construction which means that the world we inhabit as individuals is constructed symbolically by the mind (and body) through social interaction and is heavily dependent on culture, context, custom, and historical specificity. (McLaren, 1988, p. 3)

Communication is considered a two-way process in which two or more people share information to create a shared meaning (Arnold & Underman Boggs, 2007; Day & Levett-Jones, 2010; Day, Levett-Jones, & Kenny, 2012; Higgs, McAllister, & Sefton, 2008; Stein-Parbury, 2000). Successful communication is an essential skill for all healthcare professionals if they wish to establish rapport and understand the needs of people in their care. Effective communication will enable the healthcare professional to collect better assessment data and subsequently develop treatment and management protocols that are specific to the needs of the person (Day & Levett-Jones, 2010; Stein-

Parbury, 2000). Walsh, Jordon and Apolloni (2009) describe conversation as “a social activity that is respectful, inclusive, artful, flexible and responsive” (p. 169) and should occur face-to-face wherever possible; they contend that there can be no conversation without these characteristics, merely talk. Miller (2006) argues that in organisations, some people are only interested in talk as a means of influencing others and sustaining the status quo; this is common in health care organisations. Effective communication or conversation is demanding, whereas ‘talk’ is more efficient and therefore tends to dominate health care organisations. “As a result, instances of communicative action are relatively sparse islands in the sea of everyday practice” (Habermas, as cited in Hove, 2008, p. 243).

Effective communication is essential in every healthcare relationship and can be used as a key indicator of quality patient care. However, in the context of the Emergency Department (ED) it can sometimes be more difficult to achieve than in other settings (Kington & Short, 2010). This can be attributed to the often chaotic, complex and time pressured environment of an ED (Creswick, Westbrook, & Braithwaite, 2009; Owen, Hemmings, & Brown, 2009). The pressure on healthcare professionals in EDs to establish therapeutic relationships quickly, and in often less than ideal circumstances, is a constant and often difficult demand placed on the ED staff member’s communication skills. For example, the onus on ED staff to see patients quickly is encouraged by ‘administrators’ to help reduce waiting times as well as the need to move on quickly in the anticipation of more urgent cases presenting. This sentiment is recognised by Elmqvist, Fridlund and Ekebergh (2012) who described the experiences of ED staff working at the ‘front line’, such as the triage nurse, in a Swedish ED. A common response from the participants was the need to prepare patients quickly because they never knew what to expect. “You don’t have time to talk that much to the patients because you don’t know how many more patients are pouring in” (Elmqvist, et al., 2012, p. 116). Furthermore, the ED environment is often lacking in privacy due to the open plan, the noise levels are high from heavy people traffic through the department and there are frequent distractions because of the nature of ED work – never knowing what to expect. Environment is often cited, especially excessive noise, as interfering with effective communication (Day & Levett-Jones, 2010; Stein-Parbury, 2000). All of these factors contribute to making effective communication more challenging, but not impossible, for staff working in this environment. Therefore it was not surprising that

communication was identified as a key issue and sits in this thesis as the first of the three themed chapters to be presented.

In this chapter, I endeavour to make associations between Habermas' theories of Knowledge-Constitutive Interests and Communicative Action. As mentioned previously, all three types of knowledge-cognitive interests were evident on a continuum at different times during the research. There were occasions when communication transpired purely for technical purposes, as a means to an end. At other times there was a definite intention by individuals to try and reach a shared understanding of the phenomena under discussion, which constitutes a hermeneutic, practical cognitive interest. Finally, the PARG did undertake difficult interactions to bring about genuine understanding and knowledge about the core cause of unsatisfactory situations with the aim of developing strategies to improve care; an emancipatory cognitive interest. Freire (1972) refers to this as critical consciousness. "Consciousness raising is enabling people to view the world in a different way and is based on knowledge gained" (Koch & Kralik, 2006, p. 20). This is of particular importance to participatory action researchers, and something that I endeavoured to facilitate in the PARG meetings and during individual interactions with members and participants.

Communication among health professionals

Early conversations I had with clinicians from both the ED and birth suite convinced me from the outset that communication was going to be an important issue. Because of these interactions with ED staff, midwives and obstetricians it was evident that there was restrained communication between the areas, with each area claiming that the other did not understand what daily difficulties they faced when trying to provide high quality person-centred care. Having effective and open communication between the ED and maternity staff is essential if optimal care is to be achieved for both the woman and her baby (Creswick, et al., 2009). In a report by The Pennsylvania Patient Safety Advisory (2008), regarding the management of obstetric patients in the ED, it was claimed that 50% of reported adverse events occurred because of ineffective communication between the ED and the obstetrics department staff.

My decision to use participatory action research (PAR) was influenced by these early interactions. I knew from the beginning that an important aim of the research would be to try and provide a means by which clinicians from these different areas could work together to build relationships and develop a better understanding of each other's workplaces, frustrations and unique differences; I believed that this in turn would enhance communication between the two areas. I knew that this would be essential if woman-centred care was to be prioritised more highly than health professional-centred care. Saying that, it cannot be said that staff intentionally or even knowingly prioritised their own communication and work needs above that of the pregnant women, but unfortunately the interactions that transpired were not always with the woman's best interests in mind. This appeared to stem from a culture at the hospital in which collegial communication was not valued. Even though this was identified as a problem by the PARG, it did not thwart individual group members from occasionally exhibiting these same poor qualities of communication throughout the research. An example of this was when I emailed one of the PARG members to enquire about the status of an evaluation questionnaire which the group agreed was ready to be administered; the group had agreed to this about five weeks earlier. This particular group member had taken responsibility for the administration of the questionnaire; the reply email from the group member stated: "Haven't managed to amend questionnaires yet as I'm working in [*location deleted*] until about mid Sept so will look at them then". This group member had not informed any members of the PARG of the 'workplace change' or the effect this would have on the timeline of the project; mid-September was still approximately seven weeks away. It just never occurred to this person to inform the other members of the PARG that their circumstances had changed and how this would then impact on the research and the group. It is important to acknowledge that people do things at the time they think is right, but may later realise this was incorrect.

The radiology department was raised as an area of concern in reference to women receiving timely and effective care. Even though the end result was poor care, the problem originated from ineffective interdepartmental communication. This was first raised in the ED doctors' focus group as being problematic when trying to deliver efficient care to women with early pregnancy bleeding. It was noted by one of the ED doctors in the focus group that ultrasound scans were difficult to get done 'after hours'

by the radiology department and they were often forced to ask the woman to return the next day for the scan. "It would be great to have 24 hour access to ultrasound, without all the griping from radiology" (ED Doctors' Focus Group). It was felt that when ED doctors contacted radiology with a request for an ultrasound scan, especially afterhours, they were often met with opposition and were made to justify their request for a scan. Some doctors did this out of fear that the scan may be denied, while others took a more defensive stance and informed the radiology department that if they refused to come in and do the scan they would document this in the patient's chart. This topic was also brought up at the first meeting of the PARG and also at subsequent meetings as a continuing area of concern, not only for the ED, but also for the Obstetrics and Gynaecology (O&G) doctors. During the course of one of the PARG meetings, these comments were made:

Midwife: *I actually heard some conversations the other day at a morning meeting about ultrasound being, currently being understaffed, and the ultrasound people ringing the, the umm O&G people and saying well we don't think the girl in ED should be scanned. Yeah like a girl's presented, ED have rung them, O&G guys have said yeah get a scan, and they'll review the scan and now the ultrasound people are ringing the O&G guys and telling them that they don't believe the scan is necessary and to just send her home.*

ED Nurse: *Oh, I've come across that once, it was a particular…*

ED Nurse 2: *They've got no right to do that.*

ED Nurse: *it was particular, and I mean this in the sense that it was a weekend, and I think weekends, probably with staffing make a big difference because they are on call.*

ED Doctor: *That's very inappropriate. If they want, sorry I'm getting on my high horse…if the sonographer wants to come in and see the patient [ ] then great, otherwise it is our decision.*

Nikki: *It is obviously difficult to get an ultrasound afterhours?*

ED Doctor: *It is difficult to get anything afterhours, the way hospitals work.[ ]…we're the ones that have to ring for the ultrasound and as a consultant I'm being asked has a first year O&G registrar seen*

[the woman] to approve the ultrasound. So we ring you guys [O&G department] and you guys impression is why are you ringing me, but [Director of Radiology] now comes to us every Monday with a list of inappropriate radiology recorded…that's happening every Monday now too. Afterhours ultrasound is a major bee in his bonnet.

ED Nurse: *They have an on-call, but they don't like to come in.*

O&G Doctor: *So, so do you think that we are doing too many ultrasounds scans or not enough, or do you think the process is difficult?*

ED Doctor: *It's hard to say with a, with a ruptured ectopic…it only takes one to die, and then…which I hate practicing medicine that way, it's not how we practice medicine.*

O&G Doctor: *Can I say that the radiology is an ongoing sticking point, and that's not just out of hours but in hours as well. We frequently get our clinical judgment second guessed by the ultrasound, by the sonographers.*

ED Doctor: *That's our experience too. That's almost a radiology issue, isn't it?*

Nikki: *So why is this happening? Did it use to happen? Is something new?*

ED Doctor: *It's a culture. It's a culture, it's not…they don't exist for the patients, the patients exist for them.*

O&G Doctor: *It is a longstanding problem.*

ED Doctor: *It's like everything with radiology…it's the same with everything with radiology, whether it be a CAT scan, MRI, anything afterhours is a problem. If you're a nice guy, as I am, I tend to get what I want. I'm lovely, I'm courteous. Sure, no problems for you [person's name], no worries. One of my colleagues can ring five minutes later for the same test and be refused. It's done on a personality basis, so it's all politics I guess.*

ED Nurse 3: *You have to play the game.*

I wanted to turn this conversation around so that the group could look at possible ways of improving this situation, rather than placing blame on the radiology department staff.

This was clearly a longstanding problem, as pointed out by the group, but I wanted them to try and develop a strategy that may help. The midwife in the group, who initiated the conversation, reiterated that in the morning meeting she attended the understaffing issue in radiology department was mentioned a number of times. If this is the case, it would be understandable that the radiology staff would be stressed and no doubt pressured into still getting their work done by hospital administrators with the purpose of meeting departmental targets within budget allocation. Their communication was therefore driven by purposive rationality and oriented towards achieving success rather than understanding, which resulted in distorted communication with the ED and O&G departments. The midwife in the group also shared that one of the O&G consultants was going to speak with the Director of the Radiology Department to see if a solution could be found to avoid similar situations occurring in the future. The PARG felt this was a good strategy to help open lines of communication and hopefully increase understanding between the various departments. Nugus and Braithwaite (2010) and Nugus and Forero's (2011) research on understanding interdepartmental and organisational work in EDs claim that emergency staff use their knowledge about the way the organisation works, and communication skills, to progress patient pathways. The comment by the ED doctor about being 'lovely and courteous' in order to get what he wanted from the radiology department illustrates this point and is often a common method used by health professionals to achieve their desired goal, especially when departments have disparate goals. As mentioned in chapter five, there are some ingenious healthcare professionals who manipulate the system for the benefit of the person in their care; this is an excellent example of using manipulation to achieve desired goals, while avoiding conflict for the sake of collaboration (Lindeke & Block, 1998). This example illustrates strategic or distorted speech/ communication. However, on this occasion the ED doctor is communicating with woman-centred care as the catalyst, in contrast to the radiology department which is based on radiology department-centred care. The human interest being served in both of these examples is not orientated to understanding, but oriented to achieving technical knowledge and outcomes.

Even though the above example illustrates distorted communication, the process of the PARG discussing this topic in a safe environment and developing an understanding of this situation from the perspectives of others in the group, was orientated towards

understanding. Both departments realised that the communication difficulties with radiology were not isolated only to their department, and in fact the communication problems they were experiencing were no doubt systemic across the hospital. The discussion pertaining to understaffing and the subsequent pressures placed on staff and departments gave recognition to the wider organisational and political factors at play. A midwife in the group said "it all adds doesn't it. All the little bits and bobs, it all adds. It's just a system just faltering". I believe the PARG displayed communicative action or balanced communication in this example and therefore emancipatory knowledge generation was achieved.

One final example drawn from many, illustrates the PARG working towards a better understanding of each specialty's situation. It started with a conversation about feedback received by the maternity area from the Stillbirth and Neonatal Death Society (SANDS), to the effect that women found the waiting time in ED, when they presented with early pregnancy bleeding, to be too long and caused additional distress. The ED members acknowledged that this was not ideal and they wished that it could be different, but felt that there was little they could do, and they did not believe altering the triage category score would be appropriate for this cohort of presentations.

> ED Doctor: *This is the other thing about a global ED perspective; everybody wants us to manage the simple stuff in their specialty. This is not just O&G, everyone would love us to manage…the respiratory guys would love us to manage most of the asthma, the paeds, all there sort of stuff. So upping the triage category wouldn't work. We had a kid with a split lip wait 3 hours the other day, should we up that to a Cat 3? The reality is we see over 200 patients a day and acute cases will have to wait.*

This conversation led to a greater awareness by the midwifery and obstetrics staff about the requests that are often directed at ED staff, from the different specialty areas within the hospital. Furthermore, the ED staff developed a better appreciation of the distress that women are in when presenting with bleeding in early pregnancy. Although changing the triage category was agreed as inappropriate, other suggestions were discussed by the group to try and help minimise the distress of the longer waiting times

on women and their families. These will be discussed later in the chapter when reviewing changes that were implemented.

Communication between health professionals and pregnant women

The words we choose can have a significant impact on the interaction we have with another person. Habermas (1984) contends that language is the most important integrating medium through which individuals express and renew cultural knowledge in a process of achieving mutual understandings. Broadbent, Moxham and Dwyer (2010, p. 119) argue that "language and its subtleties have important outcomes in client care, so ensuring clear unambiguous meaning enables better service delivery". Within a health care context it is especially important to carefully consider what words we use to break difficult or sad information. Unfortunately, a number of the women in this study grieved for the death of their baby and the way in which this information was relayed to women or the words used to 'comfort' women following this tragic event varied between different healthcare staff. One example in which the use of language made a significant impact was evident in Sue's story. Sue was supporting her friend in the ED when she attended with vaginal bleeding in early pregnancy. Sue and her friend were instructed to walk around to the radiology department so that a vaginal ultrasound could be performed. At this time, Sue's friend had considerable abdominal pain and was very anxious about movement of any type; she thought if she stayed still her baby would be okay. On arrival at the radiology department Sue's friend urgently needed to go to the toilet and sadly, at this time, she miscarried her baby into the toilet bowl. Immediately following this, the sonographer called her in; noticing that she was distraught and bleeding the sonographer gave her a pad to wear and escorted her into the examination room. Once the young woman was lying on the examination table the sonographer said, "when was your last period and she, she told her and she said, Oh well you, you're only…thank goodness you're only about six or seven weeks" (Sue, p. 4, 157-158). Sue said to me, "Well actually it's not thank goodness she's only; this is her baby" (Sue, p. 4, 162-163). This woman had just lost her baby. In her eyes, there was nothing good about this situation and hearing words that implied she should be grateful that she was only seven weeks pregnant were not welcomed. In fact, this was a very sad day for this young woman and her family and she felt anything but good about it. Following on

from this comment the sonographer then said, "oh you'll probably need a D and C because you've still got lots of yucky stuff up there" (Sue, p. 4, 167-168). Here, the words 'yucky stuff' were used to describe what was this woman's baby. "Umm but it's also I guess the, the wording that's said to you that you remember. She's gonna always remember those, oh it's just yucky stuff in there" (Sue, p. 6, 296-297). Even though the health professional is not intentionally referring to this woman's baby as yucky stuff, the mere fact these words have been used will always be a painful memory. The sonographer was endeavouring to be compassionate with offering Sue's friend a pad and helping her into the examination room and the sonographer's comments may have also been given with the intention of helping the woman 'feel better' about the loss of her baby, but as evidenced by the woman's response this was not helpful.

> *But I know you know we all handle these things differently and to some mums, to some women that is just a bunch of cells. I'm pregnant, oh it's a miscarriage, it's for the best, there must have been something wrong with it, yadder yadder yadder. And there are some women who do, who do deal with it that way. But I think from what I've experienced and the people that I've gotten to know through similar situations umm the majority are the opposite, the majority are don't tell me it was for the best, don't tell me it's meant to be, don't tell me it's a bunch of cells, don't tell me at least I can get pregnant, don't tell me I was only seven or eight or nine weeks, I don't want to hear any of that, you know it doesn't, it doesn't help, it doesn't fix, it doesn't make you feel any better, it makes me feel worse. Because it's not for the best, if it's for the best I'd have my baby, If it was meant to be, I'd be a mum, you know if it's only six weeks, that's that's two or three weeks that I've known a little baby's growing inside of me. Umm so it's the the, the wording as well as the care* (Sue, p. 8, 348-365).

Dehumanising language is often used in healthcare (Adler, 2010; Haslam, 2006). It can be used to mask the feeling of discomfort and/or to create a 'distance' between the health professional and the person or situation in question. The end result for the recipient of dehumanising language is often the feeling of being disrespected, and of confusion and pain. Frequently, health care professionals are not aware of using dehumanising language, as it is routine and well-established within the organisation's culture. For example, staff might refer to the 'miscarriage' in bed four or the 'frequent

flyer' [referring to a person who frequently presents to the ED] in bed two; both of which are clearly dehumanising and suggests blame for their presentation. Maternity is another area that uses dehumanising language, mainly attributed to the medicalisation of childbirth. Thus, for example, rather than the woman 'birthing' a baby, she is said to 'deliver' the baby, or better still the doctor delivers the baby. These are all examples of the powerful effect of language and how reconstructing language to be more humanistic can help to facilitate positive change (Walsh, Moss, Lawless, McKelvie, & Duncan, 2008).

A further sub-theme within communication identified by the PARG was the lack of explanations or information given to women about their management and treatment. Below are a couple of excerpts from two women's transcripts that illustrate this sub-theme.

> *a cannula in your arm and she said 'why'. And he said just in case; and she said 'in case what' and he left the room to get something and she said 'I don't understand why is he putting what, in case what?' [ ] He didn't explain, he said, just said in case, and then umm, [ ] umm anyway so he, basically then said we'll do a blood test. So he took some blood and left the cannula in and then he said just go and wait back out into the little room, so we went and sat back down in the little room. Umm, another hour or so had past and a nurse, a male nurse came out to my friend and gave her a umm, a little bottle for a urine sample. He said oh I need a sample; can you give me a urine sample, and then he left. And she said 'why do I need to do this?' And, and so we knocked on the little door and gave the sample to the the male nurse and about two minutes later he came back out and said 'it's negative' [it's negative was said in a light hearted voice] and walked off. She said 'what, what does he mean it's negative?'* (Sue, pp. 2-3, 77-80; 88-94; 99-103; 112-116).

This was very distressing for Sue and her friend. Even though Sue was not a medical professional, she tried to give her friend explanations to the best of her ability. Sue said that she had to give her some information as no-one else was willing to give her answers and she was becoming more distressed. The reality is that, it is far worse not

knowing and not being informed; "the reality is that people want to be informed because they can then make good choices and be prepared" (Sue, p.10, 455-456).

> *[ ] if they're not going to come and inform you…look as far as I'm concerned something like an hourly update, I guess to just walk in, look they don't have to touch me, they don't have to...you know prep my pillows for me or anything like that, but just come in and say...look we've just had an emergency come in, someone will come back and see you in at least another hour, make sure everything's okay. [ ] when they had the change of shift, that night, the lady, the nurse that came on to look after me, I guess she had more time on her hands because she came in constantly to check on me, she came in to say I'll be calling them in 15 minutes and checking that everything is still going ahead, I'll come and see you [ ] I knew, I mean, even though things didn't end up happening [referring to her surgery being cancelled] at least I knew that someone was attempting to give me information and the only information that they could get, it's not as though I thought she could do something more for me then what was going to happen...*(Cathy, pp. 14-15, 681-686; 690- 694; 716-726).

The two excerpts above by Sue and Cathy demonstrate the importance of communicating information to women and keeping them informed. As shown by Sue and Cathy's comments, it does not have to be good or positive information; the important thing is that someone is answering their questions and keeping them informed so that they know what is happening. Pytel, Fielden, Meyer and Albert (2009) conducted a study of the communication needs of patients and visitors in an ED in America. Out of 19 items, the two ranked as most important were: "nurses keep you informed about what tests and treatments are done" and "nurses answer your questions". The eighth item listed was "nurses give you frequent updates on what is happening" (p. 408). From Sue and Cathy's comments it is clear they would concur with ranking 'information giving' as important. Additionally, checking on someone regularly assures them that you have not forgotten them and they are important to you as evidenced by Cathy's comment below.

...and I just wanted to see someone. It was like that's a good excuse to go and find someone and say hi, I'm still here you know. Because that's how I felt like, do they know that I am still here (Cathy, p. 17, 815-181).

The final sub-theme that was identified by the PARG was women 'not being listened to'. Excerpts from Belinda's transcript illustrate this sub-theme well. As noted in chapter five, Belinda was 34 weeks pregnant with her fourth child and had called an ambulance after sustaining a back injury while at home. Because she had experienced a similar injury in the past and felt the same intense pain, Belinda was very confident that she had 'pulled a muscle' in her back and her main priority was to get pain relief. On arrival at the ED, the ambulance officers left Belinda outside while they went in to see the triage nurse. The ambulance officers explained to the triage nurse the mechanism of injury and that Belinda was sure she was not in labour, but they were still instructed to take her directly to birth suite.

...the ambulance people were very good they ended up coming back out to me and saying that umm emergency didn't want to see me, that they thought that it could have something to do with the pregnancy and that they had to take me straight up to obstetrics. Umm, so they came and got me put me in a wheelchair took me through the emergency, cause they were still trying to get emergency to see me. Emergency wouldn't see me, they rang up obstetrics, they ended up saying yep we'll take her up here so I had to go and be seen up at obstetrics (Belinda, p. 1, 30-40).

Belinda was seen by a midwife and also by someone she thinks was a doctor; no introductions were made, so she could not be sure.

Yeah yeah she [the midwife] was really nice and she's like I don't know why emergency won't see you [Belinda laughs] but you know she...it was like she couldn't really say that, so I don't know whether I should say that or not (Belinda, p. 3, 115-118).

Following the conversation with the midwife, the 'doctor' asked Belinda to explain why she had come into hospital. She explained how she had bent over and twisted and felt

immediate pain in her back, and that she was still in a lot of pain. The doctor wanted to perform an anal examination and I asked Belinda if she knew what the reason for this was. Her response was:

> *Oh some…something to do with, I have no idea. But something about your back and that it can cause…oh I don't really know I didn't understand, and eventually I said no I didn't want it done because I knew it wasn't to do with anything like that, I just pulled my back muscle basically, umm he didn't know what pain relief I could have. I don't know whether he was just filling in, cause he didn't seem to know like a lot* (Belinda, p. 3, 132-140).

Belinda's problem was non-pregnancy related and the management she required was assessment of her back injury in ED and administration of appropriate pain relief. Belinda remained in the birth suite for approximately five hours waiting for an obstetrician to be available to review her. During this time she was offered Panadol, which did not help with her pain. Eventually, she requested a private obstetrician be contacted, and subsequently left the public hospital and was admitted to the private hospital in the care of that obstetrician. She received adequate pain relief at the private hospital, but the fact remains she was in considerable pain for most of the day because she did not receive an assessment in the ED, and the birth suite staff were not equipped to deal with this non-pregnancy related problem.

Even though this example illustrates poor care and could easily have been included in chapter eight, which is constructed around care issues, it originated because Belinda was not listened to or believed. This is an example of distorted communication between Belinda, the ED triage nurse and the birth suite doctor. The ED triage nurse was adhering to the 'if the woman is over 20 weeks than transfer to the birth suite' policy and there was no attempt to assess Belinda or to understand what she was trying to convey via the ambulance officers. The triage nurse was doing what she/he believed was her/his job of sorting and moving patients through the department/system as efficiently as possible; and in pursuit of that remit, she/he failed to listen to Belinda, or understand the situation from Belinda's perspective, or believe her when she said she was not in labour. The doctor in the birth suite also did not listen to Belinda, insisting on performing further investigations, which if he/she had listened and believed what

Belinda was saying he/she would have realised were unnecessary. The validity claims made by Belinda were not seen as truthful, right or even sincere by either the triage nurse or the birth suite doctor and therefore discarded.

Problems identified by the PARG members

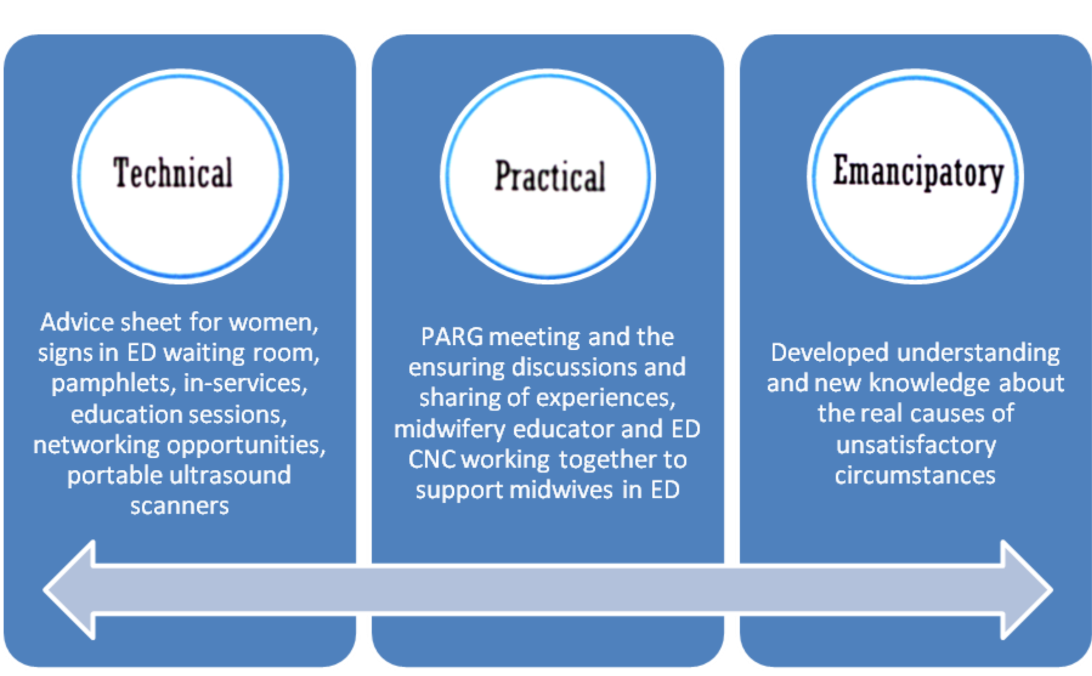
The findings above suggested the following problems:

- Lack of information available in the ED for women who experience early pregnancy bleeding;
- Lack of awareness of appropriate language to use, especially when informing a woman of the lost her baby;
- Lack of access to timely ultrasound scans when requested by the ED, leading to long waiting times for women in ED;
- Lack of awareness and understanding of each other's working environments; and
- Lack of awareness and understanding of how women feel when they attend the ED with bleeding in early pregnancy.

Changes implemented by the PARG members

The following changes were implemented by the PARG after consultation with staff from both departments and key stakeholders (see Figure 6.1). The changes occurred at different times throughout the research, with some changes occurring throughout the entire continuum of the project. For example, changes to health professionals understanding and awareness evolved throughout the project and beyond. With each meeting of the PARG, there were more opportunities for communicative action to occur which increased understanding and raised awareness. As each woman's interview transcript was shared with the PARG their understanding and awareness increased concerning what it is like for pregnant women when they attend the ED and began to recognise that care was health professional-centred and not woman-centred. The members of the PARG started discussing these issues more in their respective departments, thereby raising awareness among staff.

Figure 6.1 Changes implemented along the knowledge continuum



The strategy of networking between staff of the ED and midwifery and obstetric areas was implemented early in the research by the establishment of the PARG. The members of the group instigated further links between staff that resulted in improved communication and relationships between the areas. The Midwifery Educator conducted a number of in-service sessions for the ED staff on common complaints of pregnancy, establishing further networking opportunities and improved relationships. The Midwifery Educator and the Clinical Nurse Consultant in the ED also liaised about how to support midwives working in the ED more; from this, the midwives working in the ED were added to the email distribution list that the midwifery educator used when notifying midwives of education sessions.

To address the problem of lack of information available in the ED for pregnant women who experience bleeding in early pregnancy, a number of actions were taken. Firstly, the development of an advice sheet about bleeding in early pregnancy was completed by one of the ED nurses in the PARG (Appendix K). This was a single page advice sheet (printed both sides) containing information about bleeding in early pregnancy, miscarriage, threatened miscarriage, tests that might be done and what they mean, and

information about coping with a miscarriage and available support services. The advice sheet was reviewed and commented on by the PARG before it was implemented. An example of feedback from the PARG ED doctor:

> *Well done. Any effort to improve patient care deserves a pat on the back. Could you reverse the "tests" bit on the patient advice sheet so that Vaginal exam is at the top, followed by the blood tests and then U/S last? Would it be worthwhile adding a line after the U/S that "(this may be the next day)"?*

The above feedback was discussed by the PARG and the suggested changes were agreed to. The intent with the advice sheet was to have the triage nurse give one to each woman that presented with bleeding in early pregnancy and advise the woman to let them know if they had any questions or needed further information. There were also a number of other information pamphlets developed for women, but these will be discussed in chapter eight.

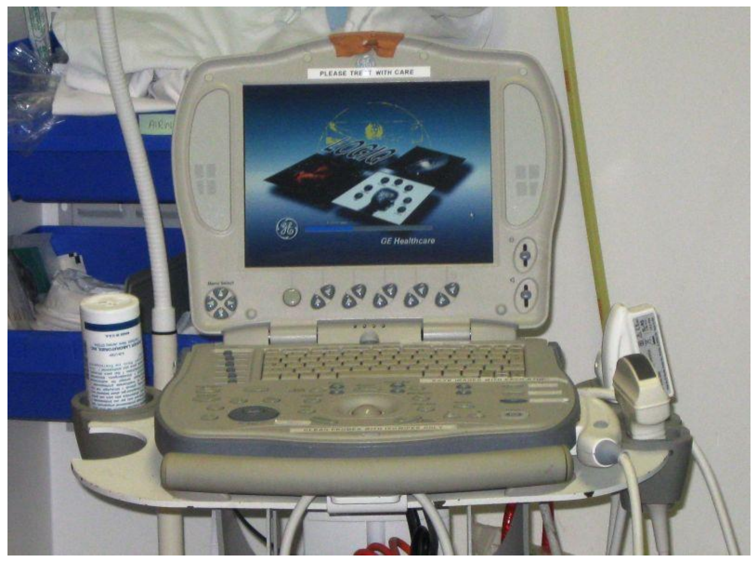
Signs were also put up in the ED waiting room (Appendix L) advising women to let the triage nurse know if they were pregnant. This was to ensure that this information was communicated to the triage nurse, as even if the woman had presented with a non-pregnancy related problem it was still important that ED staff were aware of this information if investigations and or medications were being considered. These signs were distributed on all walls of the waiting room, the triage assessment room and also in the female public toilets.

I conducted a one hour information session for both the ED and maternity areas, covering a variety of topics, including the use of language and terminology when communicating with women who had experienced an early pregnancy loss. I was able to glean this information from women's interviews, relevant literature on the topic area and conversations with the midwives on the PARG and in the ward area. The PARG was also keen to produce a DVD demonstrating examples of good and not so good communication with women who had experienced an early pregnancy loss. Unfortunately, the quote for the cost of producing the DVD was quite high and production was not deemed achievable because of this financial expense. One of the ED

nurses on the PARG will continue to pursue this idea, as it would be an excellent resource for all new ED staff and other allied health staff.

One last change that will be mentioned here is in reference to the lack of timely access to ultrasound scans for women with bleeding in early pregnancy. As this relates to both knowledge and education, this will be discussed further in chapter seven. Here it can be noted that a technical change for which the PARG was able to successfully advocate was the supply of portable ultrasound scanners. The ED doctors on the PARG were proactive in requesting the budget extend to purchasing a number of these machines, which are used for taking early pregnancy scans as well as a number of other diagnostic scanning tests in the ED (see Figure 6.2).

Figure 6.2 One of the new portable ultrasound scanners in the ED



Evaluation of the changes by the PARG members

Evaluation was undertaken in a number of formats and at various stages of the project as reflective of action research. For example, the first draft of the advice sheet for women with early pregnancy bleeding was evaluated by the PARG and then changes were made following feedback. Once the advice sheet was implemented, feedback was sought from triage nurses via an evaluation questionnaire (Appendix M). Thirteen triage nurses completed the evaluation form and the results are displayed in table 6.1. As seen

by the results not all staff were aware of the existence of the advice sheet; this feedback resulted in further advertising of the advice sheet via way of staff meetings and the ‘communication book’.

Furthermore, oral feedback was received at the completion of both the one hour information sessions that were conducted in September 2009. Feedback was requested about changes which had occurred and whether they were seen as beneficial in improving the care of pregnant women in the ED. Oral feedback confirmed that the changes were beneficial, but it was voiced by a few people that the overall problem still persists because the ED was simply not the right place for pregnant women to come with early pregnancy problems.

Evaluation interviews were also conducted with each member of the PARG following the last meeting. An overview of the interview dates and times can be found in table 4.3 and the reflection questions asked of each member can be found in table 4.4. In reference to the PARG reflections on improvements in communication and collaboration, the following responses are shared regarding whether they found working collaboratively, with other disciplines, was helpful. Below are the responses:

> *Yes. I think this is really important to create those networks. In the past we haven't had a good relationship with birth suite and maternity. This process helped to foster the relationships* (ED Nurse, 03/12/2009).

> *Yes, definitely. I have good relationships now with [Name], [Name] and [Name] all of which work in the ED.* (Midwife, 24/11/2009).

> *Yes it was helpful. The email contact was good and I felt comfortable to ring. I have developed good working relationships with the midwives. We will say Hi now when we see each other around the hospital, because we know each other from the group* (ED Nurse, 24/11/2009).

Table 6.1 Evaluation questionnaire results for the 'Bleeding in Early Pregnancy' advice sheet

Questions Asked	Responses (N= 13 respondents)
1. Do you know the location of the 'Bleeding in Early Pregnancy' advice sheet?	Yes = 10 responses No = 3 responses
2. If so, have you used it?	Yes = 4 responses No = 9 responses
3. If you have not used it, why?	▪ Not aware of it; ▪ Not often working at triage; ▪ Not had ongoing contact with a patient that required it; ▪ Honestly, forgot we had one; ▪ Only found it today! I like it!
4. Did you find it helpful?	Yes = 7 responses No = 2 responses Not answered = 4 responses
5. Why was it helpful?	▪ Provides explanation in general terms for women presenting with this condition, also provides contact numbers for support groups; ▪ Although I have not used it yet, I find the content and presentation helpful and non threatening; ▪ Provides information that is helpful; ▪ If helps inform patient of the reasons about why you can bleed during pregnancy and what possible care to expect.
6. Why was it unhelpful?	▪ No reason to use it yet.
7. Comments?	▪ A useful tool; ▪ More education regarding the above needed.

> *Yes this was great. Recognised ownership of project. It was good because I prioritised the relationship that I had with people that I knew were on the PARG. Having 'identified' people makes a difference because it is easier to communicate issues. It also avoids things getting lost or no-one taking responsibility* (Obstetric Doctor, 18/11/2009).

> *Absolutely, I think it is so important to be collaborative. I find that in Australia collaboration is not as good as in Canada. Everyone (nurses, doctors, different*

specialties) all work together over there. I have found in Australia it is more isolated. I think it is important that these collaborative relationships are established as it is vital to providing good patient care (ED Doctor, 30/11/2009).

I valued listening to other staff in the meetings; hearing the other perspectives. Because of this I changed my views on a number of things. For example I understand now why it isn't appropriate to be sending surgical patients to the maternity ward because the women there aren't sick; they have just had a baby which is a normal process. Before I saw it as just another ward; I now know it is different. I think it should be separate and not mixed in with all the other wards where people go when they are sick. I always found it helpful working with other disciplines. [Director of Obstetrics and Gynaecology] and I will often email now and discuss things that are happening - stuff ups etc. We do informally, more collegially (ED Doctor, 02/12/2009).

From a critical theory standpoint the ability to see things from different points of view and understand the world in different ways, can lead to enlightenment and emancipation (Kemmis, 2006). When I heard the ED Doctor describe pregnancy as a 'normal process' I was amazed. At the beginning of the research, this ED doctor viewed pregnancy as a 'condition' that required medical intervention and management. To view it as 'normal' was a big shift in his thinking. Further comments below demonstrate the value of collaboration.

It was good that there was shared ownership over the problem and this helped with sharing patient information with others. It helps avoid departments doing things independently; it was better to work collaboratively (Obstetric Doctor, 18/11/2009).

Yes. Always fascinating to get different points of view. It helps to make sense of things and you get the bigger picture. I learnt quite a bit about the other departments. One thing that I have found is that since we have been at the new hospital, because it is bigger and more spread out, staff are too involved in their own areas and forget how useful it is to build bridges with colleagues. The old

hospital we seemed to collaborate more with other staff in the different areas (ED Nurse, 30/11/2009).

I am also interested in improving interdepartmental relationships and this was a good process to do that. I thought that action research was great (ED Doctor, 02/12/2009).

Because of the research I now collaborate more collegially/informally with [Director of Obstetrics and Gynaecology], [Obstetric Consultant] and other staff about issues with pregnant women in the department, which wasn't happening prior to the research project (ED Doctor, 02/12/2009).

The networking with other health professionals was marvellous (Midwife, 24/11/2009).

Being in the group helped build bridges with the midwives working in ED. I found listening to the different perspectives or experiences from the midwives and obstetrician was facilitating and gave me a better understanding of what it is like for them. It was good for networking both with ED staff and Midwifery staff (ED Nurse, 24/11/2009).

Conclusion

Effective communication is essential to establish rapport and understand a person's needs, and can be used as a key indicator of quality patient care. The ED environment is fast paced and chaotic making effective communication more challenging for staff. Because of this, it is not uncommon to have distorted or strategic communication as the dominant discourse, which is oriented towards success opposed to understanding. The establishment of the PARG was instrumental in providing opportunities whereby balanced communication could be achieved and understanding reached. This allowed the PARG to then identify and implement changes to improve communication and ultimately improve the care that pregnant women received when they attended the ED. To conclude this chapter a final word from Lewis Carroll.

"Do you mean that you think you can find out the answer to it?"
said the March Hare.
"Exactly so," said Alice.
"Then you should say what you mean," the March Hare went on.
"I do," Alice hastily replied; "at least, at least I mean what I say...
that's the same thing, you know."
"You might just as well say," added the Dormouse, which seemed to be talking in its sleep, "that I breathe when I sleep, is the same thing as I sleep when I breathe!"
"Not the same thing a bit!" said the Hatter. "You might just as well say that I see what I eat, is the same thing as I eat what I see!"
"You might just as well say," added the March Hare, that I like what I get, is the same thing as I get what I like!"
(Lewis Carroll, Alice's Adventures in Wonderland)

CHAPTER 7: KNOWLEDGE

"The master was an old Turtle...we used to call him Tortoise"
"Why did you call him Tortoise, if he wasn't one?" Alice asked.
"We called him Tortoise because he taught us," said the Mock Turtle angrily;
"really you are very dull!"
"You ought to be ashamed of yourself for asking such a simple question," added the Gryphon; and then they both sat silent and looked at poor Alice,
who felt ready to sink into the earth.
(Lewis Carroll, Alice's Adventures in Wonderland)

Introduction

The old age adage comes to mind when I read the above quote from Lewis Carroll; "There is no such thing as a silly question", but is this really the case? I suppose one cannot absolutely say that someone would not ask a silly question, but generally speaking most reasonable people ask reasonable questions to fill a gap in their knowledge. As an educator, I am guilty of reciting this adage; I do so because I want students to feel comfortable and have the confidence to ask questions without fear of being ridiculed or made to feel inferior. In the clinical setting, I have been witness to junior nurses and doctors who were made to feel inferior or 'stupid' for having asked what was considered by the other person to be a 'silly question'. The question itself was actually not silly, but it did demonstrate that the person asking it was 'inexperienced'. It is understandable that if this was to happen often enough to the inexperienced person they might stop asking questions, or at least not ask questions of the person that is making them feel inferior. Throughout this chapter there will be evidence to demonstrate that 'inexperienced' clinicians' knowledge was expressed as a common frustration by more senior clinicians.

The other area of knowledge concern identified by the participatory action research group (PARG) was in reference to that of the pregnant woman. In chapter six it was identified that pregnant women often felt uninformed about their treatment and the reasons for undergoing certain investigations while in the emergency department (ED).

This was often described by the women as 'withholding of information', not listening, poor use of language and inadequate explanations. The PARG attributed this to ineffective communication on behalf of the health professional, which is accurate, and for the purpose of this thesis was accordingly assigned to the communication chapter. While it also concerns knowledge, the focus here will be on the reasons *why* health professionals were not communicating this information and not the fact that their communication was ineffective. Was it due to poor communication skills, or was it because they did not have/know the information themselves and therefore did not feel confident to keep the woman informed? These questions are addressed throughout this chapter. As in the previous chapter, I will endeavour to make associations between Habermas' theories of Knowledge-Constitutive Interests and Communicative Action.

Before exploring the findings demonstrating this thematic concern, it is prudent to review the knowledge about obstetrics and pregnancy to which nurses and doctors are exposed during their foundation education and training in Australia. This will help situate the findings in the larger socio-political and cultural context.

Education of doctors and nurses

In Australia, there are twenty two approved programs for becoming a doctor; the traditional undergraduate five-six year medical course or the more contemporary four year graduate entry medical course (Australian Health Practitioner Regulation Agency, 2011). In Queensland, both pathways are available. The normal pathway (since about the late 1980s) to becoming a registered nurse is to undertake a three year undergraduate university course; these courses are offered at a number of universities in Queensland. However, a contemporary two year graduate pathway also exists and is offered by a number of universities (Australian Health Practitioner Regulation Agency, 2011; School of Nursing Midwifery and Nutrition, 2012). All courses incorporate clinical placement as an essential component as well as the traditional classroom style lectures, tutorials and simulated laboratory classes that are undertaken in the university environment.

Within Queensland alone, nursing curricula can be vastly different from one university to the next. It can generally be acknowledged, however, that a nursing degree contains

scant theoretical knowledge about pregnancy and or maternity issues. The main focus is on women's health issues, with an overview given, mainly in the third year of the course, about the normal physiological process of childbirth and some general antenatal and postnatal care instructions; this may be accommodated in a two or three hour lecture. At James Cook University, the primary intent of incorporating this into the program is to provide knowledge about what a midwife does in her or his professional capacity and to acknowledge that pregnancy is a normal healthy life event for most women. A secondary intent is to correct any misconceptions or 'myths' that students may hold about childbirth so that they do not contribute to their perpetuation. The purpose is not to prepare nursing students to work in maternity areas. Therefore, the information that nursing students receive during their training about pregnancy or pregnancy related problems is minimal.

Similarly, in medicine the curricula are different from one university to the next. As mentioned earlier there are both undergraduate and graduate pathways available to becoming a registered doctor. Some curricula's are built on problem based learning principles, while other universities, such as James Cook University, offer an integrated spiral curriculum (James Cook University, 2012). A standard medical degree would integrate obstetrics, gynaecological and pregnancy information throughout the course, but the depth to which this is covered varies from school to school and also from student to student. Additionally, depending on the overall philosophy of the school (or more specifically of the teachers involved in these units of study) towards childbirth, this may be taught from a medicalised perspective of childbirth rather than a 'normality' perspective. I recall a number of years ago a midwifery colleague of mine had been asked to sit on an education panel for first year medical students at a local university. Throughout the ensuring discussion one of the students remarked that they had enrolled in medicine so that they could care for women during normal childbirth and she was really looking forward to graduating so that she could begin to do this. When my colleague mentioned that obstetricians are meant to care for women when their pregnancy is not following the 'normal' pathway or complications arise in a woman's pregnancy and in fact midwives care for women during normal childbirth, this student was very surprised and somewhat crest fallen. Due to the long history of medical dominance of childbirth (Barclay, et al., 2002; Davies, 2003; Lane, 2010; Reiger, 2000) it is not surprising this student held this view. Due to medicalisation of childbirth in

Australia, seeing a doctor when pregnant is almost a 'taken-for-granted' experience (Zadoroznyj, 2001). Furthermore, the Confederation of Postgraduate Medical Education Councils (2009) published a document entitled 'Australian curriculum framework for junior doctors' which cites the clinical problems and conditions that doctors should be able to appropriately assess. Under the heading of 'obstetric' only one item is listed; 'pain and bleeding in pregnancy'.

Having worked in the tertiary education sector for over a decade, my belief is that the main problem is providing students with quality clinical placement opportunities. This is especially true since the intake of students into universities has increased substantially, causing a bottleneck effect for clinical facilities. The Australian Medical Association (2012) claims that medical student numbers have doubled over recent years and that by 2014 more than 3,700 students will graduate from medical schools in Australia. There is a simultaneous increase in nursing student numbers. The onus has been placed on universities and industry to build capacity for clinical placements (Barnett, et al., 2008) through innovative and more collaborative systems. Traditionally, clinical placements in specialty areas (such as obstetrics and gynaecology [O&G], and emergency medicine) are limited, and often students spend very little time in these areas, if any at all, during their educational course. Even if a student requests to have a placement in one of these areas it is often difficult to obtain. The following notice was placed on the University of Queensland's website for medical students, "Placements in areas such as Surgery, Anaesthesia and Paediatrics will be limited. There are no placements in 2009 for Obstetrics and Gynaecology" (University of Queensland, 2006). Therefore, one could predict that many nursing and medical graduates, upon registration, do not feel adequately prepared (in knowledge or clinical experience) to work in these specialities areas of health (Edwards, Smith, Courtney, Finlayson, & Chapman, 2004). This is further supported by a study conducted by the Department of Education, Science and Training (2007) to investigate how prepared medical students were upon graduation, and how prepared they were to undertake speciality training. It was found that emergency medicine was seen as poorly developed in medical school training for entry into speciality training. They also found that "many interns felt that medical school could not prepare them for all aspects of practice as some of these areas were unanticipated, particularly the 'politics of the workplace' and lack of regard for the intern within the clinical team" (p. 10).

Newly registered doctors first complete their intern year, which is usually undertaken in a large hospital where they are rotated through four to six different departments of the hospital. Surgical and Medical departments are always included, and the ED is prioritised as one of the departments that hospitals endeavour to include for all interns. The inclusion of an O&G rotation is largely dependent on the hospital and available positions. After completion of the intern year they become known as residents; both interns and residents tend to be referred to as 'junior doctors'. Generally, after two to four years as a junior doctor, they can apply to become specialists by entering a specialty training program (of which there are 13 specialty colleges) or leave the hospital and undertake General Practitioner training. Once a doctor is enrolled in a specialty training program they are appointed as Registrars within the public health system in Australia. Upon successful completion of the specialty training and requisite examinations they are appointed as hospital Consultants.

Health professionals' knowledge

Nurses and doctors need to acquire adequate knowledge to safely assess and manage patients in the ED and provide quality care (Chu & Hsu, 2011). From a critical theory perspective it needs to be acknowledged that historically, medical power has influenced the development and the status of nurses' knowledge (Doering, 1992) and that medical knowledge is seen as the highest form of knowledge when compared to that of other health professions (Street, 1992). One of the many benefits of using a PAR approach to conduct this research was the promotion of interdisciplinary relationships and the subsequent knowledge that stemmed from different cohorts of professionals working together to better understand each other's roles and responsibilities, with the shared aim of improving care for pregnant women that attend the ED. Most health professional education takes place in silos; meaning within the one discipline, for example, ED nurses educating ED nurses and ED doctors educating ED doctors (Barnsteiner, Disch, Hall, Mayer, & Moore, 2007). The PARG provided the space and opportunity where this could be redressed in a safe and collegial manner. One of the PARG's discussions built on the data obtained from the focus groups pertaining to the question as to what would be considered as an inappropriate referral from the ED and when should the ED

refer women for an O&G consultation. The comment below was contributed from a birth suite midwife in the focus group environment.

> *...the problem is with inappropriate referrals, it can be hours before a medical or surgical physician sees the woman because they think she's fine there in the birth suite, but really she is just waiting around getting frustrated. Sometimes the woman gets frustrated at us because they are not being managed and think it is our fault; but we have to wait for the review because whatever is wrong is not pregnancy related. This does cause anger, low morale and frustration among the midwives.*

This comment from the midwife identifies the frustration that is felt by midwives in the birth suite when women are inappropriately referred to them from the ED. This in turn causes a breakdown in communication between the ED staff and the birth suite midwives which ultimately affects the care women receive; knowledge, communication and care are all interconnected. The main frustration that midwives voice when women are referred to them with a non-pregnancy related problem is that they are not equipped in knowledge or skills to help the woman; they can certainly check the baby and provide 'midwifery' care, but if this is not the primary reason for the woman seeking help, it will do little to resolve the woman's underlying problem, as demonstrated in chapter six by Belinda's story.

In one of the PARG meetings a discussion was undertaken about 'back in the olden days'. When the maternity hospital was still open, they would see different types of presentations in the 'outpatient clinic', where they triaged and managed a high proportion of pregnant women with pregnancy related problems, a service with which they felt very comfortable. However, they would also receive other emergency type presentations that were non-maternity related, such as myocardial infarctions, drowning, and overdoses. This was because they were the closest hospital for the ambulance or private transport to present to at the time; as noted in chapter one, the public hospital ED was approximately 12 kilometres (or a 20 minute drive) from the maternity hospital, prior to the new hospital opening in 2001.

ED Nurse 1: *Plus you got a lot of other people who didn't even have maternity problems*

Midwife 1: *Absolutely*

Midwife 2: *Aspirations, drowning, everything popped in! [laughter from the group]*

Midwife 1: *We had the worst resuscitation rate...you were there then, you remember [pointing to the other midwife]...worst resuscitation rate in [name of town]. They were dead when they got to us and we got into trouble for that.*

Midwife 2: *We then got a note...it was a memo*

ED Nurse 1: *I remember that, I remember*

Midwife 2: *Yeah, saying we had the worst resuscitation rate, well we may not have been as good at resuscitation but we are pretty good at doing births. [ ] Not good at resuscitating people with carbon monoxide poisoning or the men with the cardiac hearty tacky things...we got someone one night that had injected vegemite...*

ED Nurse 2: *Really, you got stuff like that use to come to you...but you were a women's hospital.*

This conversation continued for some time with anecdotal stories being shared, and understanding grew as to what the system was like prior to the new hospital being opened, a history of which a number of the PARG members were not aware of due to their short association with the hospital. Understanding also grew about why midwives felt strongly that pregnant women with non-pregnancy related problems should not be sent to the birth suite. As demonstrated from the above excerpt, midwives felt that they were very good at their job when it came to caring for women with pregnancy related problems or birthing, but they felt out of their depth dealing with conditions outside this realm. The midwife recalled that the maternity hospital received a 'memo' from the 'main hospital' highlighting the poor resuscitation rate and advising the maternity hospital clinicians to correct this. They had neither the knowledge nor the resources to deal with such diverse presentations and yet they were held accountable for the outcome, and understandably some felt dreadful about this. Sharing this information in the PARG assisted the ED staff to understand the dilemma that inappropriate referrals caused for midwives and also resulted in a deeper understanding about midwifery

practice. Acknowledging that midwifery is not just an extension of nursing raises awareness about the appropriateness of some referrals. I believe this PARG discussion to be an example of communicative action, where an ideal speech situation was accomplished by individuals in the PARG because they were oriented to understanding the situation from the midwives perspective. This resulted in emancipatory knowledge generation for members of the PARG.

This situation was previously viewed from the woman's perspective in chapter six; Belinda's story illustrated what it was like for her when sent to the birth suite with a non-pregnancy related problem. Finally, let us look at this from the ED triage nurses' viewpoint. A 34 week pregnant woman has arrived by ambulance with the complaint of severe back pain; this is her fourth pregnancy. Upon hearing this from the ambulance officer the triage nurse decides that the safest option is to send the woman directly to the birth suite and not delay the transfer with an assessment. I cannot say with absolute certainly that this particular decision was made because of lack of knowledge, although upon talking with ED nurses in the focus group it would appear these decisions are often related to knowledge deficit about pregnancy and pregnancy related problems. The more junior triage nurses tended to do little or no assessment if there was any suspicion of labour and the woman was more than 20 weeks pregnant, and instead felt more comfortable transferring the woman directly to the birth suite. It was mentioned, both by the ED nurses and ED doctors, that if there was an ED nurse on duty who was also a qualified midwife, they would try and seek them out to review the woman; in this case staff were actively seeking expert knowledge to assist with decision making. "I think that's a fairly standard process for non-midwife people, is to hunt around the floor looking for a midwife and get help from them" (ED Nurses' Focus Group, 19/09/2007). Unfortunately, as there were only four ED midwives on staff in the department this was not always possible. As demonstrated in chapter two, unexpected birth in the ED is classified as an emergency situation by most ED staff and causes extreme anxiety (Blake, 2012; Cameron, et al., 2004; Lyons, 2010). In this situation therefore, if the triage nurse was anxious about the possibility of an impending birth in the department, then organising an immediate transfer may have seemed like the safest option for the nurse, although not the best option for the woman. Of course, it is understandable that a triage nurse would want to have an expert opinion. Below is a comment from an ED nurse in the focus group.

I sort of try to if, if they're under 20 weeks umm I want to know like fairly rapidly their haemodynamics because that's gonna change how I triage them, so I usually like to get at least a pulse. If there greater than 20 weeks, then I probably spend more time on the history unless it's blatantly obvious like they've got cramping, abdo pain, back pain, then that's fairly quick through to birth suite. But you know things like shortness of breath, those sort of slightly vague ones...and that you have to make some sort of a decision as to...and I'll often liaise with, ring birth suite and say this is what I got, can I send them up or would you prefer we see them.

Triage is a complex process requiring the nurse to make important clinical judgements, often under unpredictable conditions and with patients who are often highly stressed and or unable to communicate effectively due to pain or as a consequence of their presenting condition (Cioffi, 1999; Considine, Ung, & Thomas, 2000; Fry & Burr, 2001; Gerdtz & Bucknall, 1999). As described in chapters one and two, the triage nurse is required to assign a triage score to each person, based on the urgency and severity of the presentation (Andersson, et al., 2006; Queensland Health, 2007). Gerdtz and Bucknall (2001) surveyed 172 Australian triage nurses to better understand the scope of practice and the educational preparedness of triage nurses, and concluded "that many triage nurses' work in organisations that provide no specific triage education (p. 26). At the *Many Happy Returns* hospital, triage training usually relied on the Registered Nurse having at least 12 months experience in an ED (although this was not always the case), and a 'buddying' system whereby an experienced triage nurse would role model and teach the novice nurse the 'ropes'. Depending on the ability of the novice nurse this may occur over a few shifts or perhaps a number of weeks. The novice triage nurse would then assume this role solo, knowing that more experienced 'back-up' triage nurses were available in the department if they required assistance.

Additionally, midwives said in their focus group that they were happy to go down to the ED and see a pregnant woman if the ED staff were unsure whether to transfer a woman or not. When this was discussed by the PARG it was noted by one of the ED nurses that on a number of occasions when she had rung the birth suite for advice she was met with hostility from the midwife and because of these experiences was often reluctant to ring

for further advice. The midwives in the group were disappointed to hear this, but not surprised. They mentioned that unfortunately there were a few midwives in the birth suite who were renowned for being hostile and that most people found them difficult to interact with. The ED nurses were encouraged to keep ringing the birth suite if they sought advice, as the majority of midwives were more than willing to assist if possible and certainly willing to go to the ED and review the woman if asked. It is disappointing to hear that health professionals behave in a way that ultimately adversely affects the quality of care for a patient. They are portraying distorted communication which is success driven. A midwife in the PARG did mention that there were some midwives who did not like to receive admissions from the ED as it would increase their workload. Maybe this was the motivation behind the distorted communication, their aim being to minimise workload through unhelpful and hostile communication with the hope that the person would seek advice from elsewhere. There were also a number of concerns raised, especially by the O&G focus group, about the knowledge level of junior doctors in the ED. One of the registrars in the group made the comment that, due to lack of knowledge in the ED, pregnant women are not always managed appropriately.

> *Let me try and differentiate cases I have seen in the past that have been mis-managed by the ED versus ones that I think I should be called about. I think there are some things that come through the emergency department that should be able to be managed by the emergency department without involving me, but may not necessarily have been managed well because they didn't involve me – that's the distinction. So a patient who you know who presents with...umm an ultrasound scan, because of the lack of knowledge in the emergency department, has been written off as, oh she's just got a normal pregnancy when in fact you find out a week later that because they didn't know enough about the ultrasound criteria for diagnosing a miscarriage versus ectopic versus a normal pregnancy, sent her home and that's the kind of situation we are talking about…now had they the knowledge to know about what needed to be done, then there wouldn't be an issue, but it's the lack of knowledge that I think causes more problems than anything else. Umm, so you know, I know that if a sac [meaning embryonic sac] is a certain size and I don't see a foetal heart pole that means a certain thing and umm, that doesn't necessary mean I need to review the patient but it could simply be phone advice, but umm there are some situations where the*

emergency department takes it upon themselves to make decisions about that, without consulting us and we're the ones that pick up the pieces afterwards when they come back with ongoing pain and bleeding, because whoever saw them in the emergency department didn't have the knowledge, experience to sort the patient out. I see this most frequently when they are seen by a very junior person in the emergency department without running it past a senior person in enough depth.

In chapter five it was noted that I would further explore the comment that was made in the O&G focus group about "they seem to lack interest in assessing O&G patients...that's the impression I get anyway". This was said in reference to the ED doctors and specifically junior ED doctors. The comment extended to include "why is it that for cardiac patients they do ECGs and everything and would never ring the cardiac registrar without having these done, but for O&G they will ring with nothing done".

...if a patient presented with rectal bleeding, a surgical registrar would rip the head off any person in the emergency department who hadn't done an abdominal examination and PR [per rectal examination] before ringing them. I don't see why we should be any different.

The results from the chart audit were shared with the PARG and it was evident that ED doctors did undertake a number of diagnostic tests such as blood tests, pelvic examinations and ultrasound scans when caring for pregnant women. The O&G doctor found these results revealing and acknowledged that these tests were obviously being done some of the time. Upon further discussion it was thought that tests such as ECGs are relatively non-invasive and are often done in urgent situations; it could be potentially life threatening to delay undertaking a ECG if the person presented with chest pains that were predictive of a myocardial infarction or a lethal arrhythmia. Furthermore, it was argued that because vaginal examinations are invasive and quite distressing for some women, particularly if they were experiencing a miscarriage, it was best to have the examination performed by a doctor who was experienced at interpreting the findings and not by a junior doctor who had minimal experience with performing the examination and therefore felt they may cause the woman further distress by having

to have the vaginal examination repeated if the senior doctors wanted to check their findings.

At the second meeting of the PARG the knowledge of junior doctors in the ED was discussed. To set the scene for the discussion I commented "okay, we don't believe there is everything wrong with the junior ED doctors, but there seems to be a stumbling block here". When the discussion commenced the O&G doctor commented:

> *The really early pregnancy bleeding ones are not the problem…my feeling is that those are not the ones that are a problem. The problems ones are the borderline ones, the 16 to 24 weeks, people aren't sure what to do with them. Most of it comes down to a lack of knowledge from staff in the emergency department rather than necessarily a systematic problem in the way we deal with them. Because there is nothing fancy about an early pregnancy clinic, it's just people know better in those clinics what to do. [ ] Early pregnancy bleeding are very easy cases to deal, sure there is some, is some emotional and social issues around them that create drama, but um if you are comfortable dealing with them, if you know what to do with them, they can be dealt with quite quickly and quite easily.*

The ED doctor made the comment that these cases were often referred to as "Box Blockers"; another example of dehumanising language. When I asked for this to be explained, I was informed that they were given this name because they would often be left in the 'triage box' with the hope that another doctor would come along and 'pick it up', as they were perceived as 'difficult' cases. The group endeavoured to understand why these presentations would be viewed as 'difficult cases'. Some recognised that the doctor could do nothing to prevent a miscarriage and these cases were often considered long (waiting on blood and ultrasound results) and emotive. Other cases, such as a musculoskeletal type injuries or lacerations, were considered straightforward and concrete; the doctor could do something to 'fix' the problem in a relatively short period of time. In this respect, it may have been more rewarding for doctors to choose cases which, from their perspective, they were more likely to achieve a positive outcome. The O&G doctor was quite bemused by this, since he would deliberately choose bleeding in early pregnancy presentations when he was a junior doctor in the ED because they were

quick and easy to manage. However, it could be said that he would not have chosen this speciality area (O&G) unless he found it interesting and enjoyed the work, which is why he found pregnancy related presentations more to his liking in the first place. The ED doctor agreed that for senior doctors or consultants they were easy cases to deal with, but added the caveat that this was only true between eight o'clock in the morning and four o'clock in the afternoon when ultrasound was available. Outside these hours, they became more problematic because of the "difficulty in getting out-of-hours ultrasounds done" and junior doctors often lacked experience and confidence in knowing which women should have ultrasounds done immediately and which women could wait until the next day. This is a difficult decision even for the ED senior doctors, as one ED doctor affirmed in the focus group:

> *We use pearls of wisdom – it is the ED state of mind. For example all PV bleeding is an ectopic pregnancy until proven otherwise. We operate on, what don't you want to miss...the worse case scenario, and then work to exclude that first.*

The ED doctor raised the issue of the departmental policy concerning bleeding in early pregnancy and the ordering of afterhours ultrasounds. It was decided that this policy should be reviewed and updated by the PARG, and this led to one of the ED doctors volunteering to take responsibility for the task. Furthermore, one of the ED nurses mentioned the idea of developing a flowchart to be used at triage:

> *We have guidelines around chest pains and like, or people with cervical collars, I mean those sort of ones that have good guidelines about um there triage categories, tend to be triaged the same, they're, there more reliable, everyone does the same, it's consistent.*

This was agreed to be a good strategy by the midwife, the ED doctor and the O&G doctor, and so one of the ED nurses volunteered to develop a one page flowchart to which triage nurses could refer when women presented to the ED with early pregnancy bleeding. Once developed, it was agreed that this flowchart would be distributed to the PARG for feedback and comments, after which it would be distributed to key stakeholders for feedback and subsequent implementation.

The pregnant woman's perspective

The women interviewed in this study wanted to be informed about what was happening to them and their management options, even if the information was considered by health professionals as sad or negative. Sue strongly believed that women should be informed about the possible risk of miscarriage right from the start.

> *I also think women going to, starting to want to have a family, when they go to see their GP and have a check up and make sure you get your blood tests and make sure everything's okay, at that point why can't they be told, you need to know one in three pregnancies end in miscarriage, 60% of those miscarriages are caused by chromosome errors, it's nothing you've done, nothing you could have done, just be prepared [ ] to be told even at that point, way back then to say, just isn't that easy it can take a normal healthy couple up to twelve months to get pregnant and if you do get pregnant there's always this possibility [referring to the possibility of a miscarriage] just bear that in mind I think. If you're just given a little bit of insight you wouldn't go into it so blasé and say oh I'm pregnant now I'm gonna tell the world and I'm gonna have a baby, because it just doesn't always work that way either* (Sue, p. 9, 429-450).

Sue was speaking in a lifeworld voice from the viewpoint of a woman who had had six miscarriages, with the last being one month prior to our interview. Sue felt that if nurses, doctors and midwives were better educated about the psychological effects of miscarriage, they would then be better equipped to manage women who had experienced one.

> *...after my D&C I had a few different nurses come up to me and I was really sad and I was laying there by myself crying and a nurse came up 'oh why are you sad', and I'm like yeah I just lost my sixth baby. Yeah, you can't not tell the truth and you can't say well, yeah you should bloody read my chart, [Sue laughed] have a look at my chart, why am I here, don't just come in and say 'oh you're a bit sad are you'. [ ] I guess it's that forethought, and that probably happened about three times to me throughout that day…you sad are you, you scared, no*

> *[Sue laughed] can you just pick up my chart and have a little look, which is this thick [used fingers to demonstrate a thick chart] you know, so it's...I guess that thought of here's a patient, she looks upset, why could she be, let's just have a look, sneak preview, okay she's had a D&C, clearly she's perhaps very sad* (Sue, p. 7, 329-344).

Sue also felt that miscarriage was not spoken about openly and this made it worse for women and families that had experienced a miscarriage because they often felt that they could not disclose this or share this information with others. "It's a really hard thing because you know it is such a taboo subject in our society you know. You don't go up to, and say oh how you going, oh I'm okay, I just had a miscarriage yesterday" (Sue, p. 8, 380-383). Sue felt that it was important to make 'miscarriage' more public and that nurses and doctors needed to be educated about all aspects of miscarriage in order to do this.

> *I want people to know that one in three pregnancies end in miscarriage, it's so common and it's going to happen to someone within your circle, so at least to be able to know to say hey I'm really sorry, there's nothing I can do or I don't know what to say but I'm here……if you need to just talk, cry, drink with me [Sue laughed] anything umm, and I think education on that side of things [referring to psychological support] is so so so important* (Sue, p. 405-409; 413-415).

The next excerpt is from Kim's story. Kim was a young woman in her early twenties who was pregnant for the first time and at her nine week ultrasound thought there could possibly be a problem because she saw written on a form for her General Practitioner (GP) '? blighted ovum'. She did not know that this meant, but suspected it was not good.

> *I suppose I was bawling my eyes out and he said we will just check your pregnancy levels...and I didn't understand any of it and didn't know he thought that [Kim was referring to a possible foetal dismiss], he just thought maybe we'd just got the dates wrong, well I thought that [ ] I thought that was why he*

was being so iffy. Um, but it turned out that I had a blighted ovum, I looked it up on the Google to see what it meant (Kim, p. 6, 287-291; 295-298).

Here, Kim was forced to 'google' the words she saw written on the form as the GP was not prepared to explain what they meant to her at this time. This reinforces Sue's early comment that even if the health professional knows that the information could possibly be sad or negative, it is still important to inform the woman so she is well prepared for what may eventuate. Providing education and knowledge to women will help them make informed choices and be prepared. An issue here, is that many doctors have not been taught how to deliver bad or sad news in their training. "...despite the fact that virtually every clinical specialty requires doctors at some stage to be the bearers of sad, bad, and difficult news, a woeful lack of training existed" (Fallowfield & Jenkins, 2004, p. 312). Health related curricula's are endeavouring to address this deficit by increasing communication and grief and loss content, as well as, simulated training scenarios dealing with the giving of bad news.

Two weeks later after a second ultrasound the GP confirmed to Kim that she did have a 'blighted ovum' and that it would pass when she had her normal period. This is often the case. However, Kim developed severe abdominal pain and heavy bleeding four days later and was unsure what was happening and understandably very anxious. "I'd never had so much pain in my life. And I was in so much pain I could hardly walk" (Kim, p. 2, 51-52). Kim contacted her mother who drove her to the ED. Kim's experience in the ED was a positive one.

[ ] mum took me in and um they got me in straight away and um a doctor came and saw me, he was really good. He um, I can't remember any of their names but you know he sort of said look it wasn't your fault, and that these things happen and...I didn't even know it was a miscarriage like I have not experienced it before...(Kim, p. 2, 61-67).

When the PARG was discussing inconsistent care in the ED, it was noted by one of the ED doctors that care could be variable and depended on which doctor the woman saw and how comfortable the doctor was with 'miscarriage'.

lack of consistent approach maybe. Some women have a lovely experience. They might see me or they might see someone else that has a beautiful spiel about miscarriage and look it's not your fault and yeah, and then you've got others saying look it appears you've lost your baby, we'll get you back tomorrow for an ultrasound you know, see you later, you know it is very variable.

Improving consistency of care was very important to the PARG, and a number of strategies, discussed shortly, were implemented for this very reason. It was also important to the PARG to introduce strategies which provided women with standardised information, regardless of who was on duty. We wanted to minimise women having experiences similar to Kim's because of lack of knowledge about their condition or about what to do if particular events were to occur.

I wish I had been more prepared, like I didn't expect to be at work and you know have blood running down...and through my pants. I just, I just didn't expect that at all. I didn't know what was happening, I was expecting a normal period...right (Kim, p. 8, 364-373).

Problems identified by the PARG members

The findings above suggested the following problems:

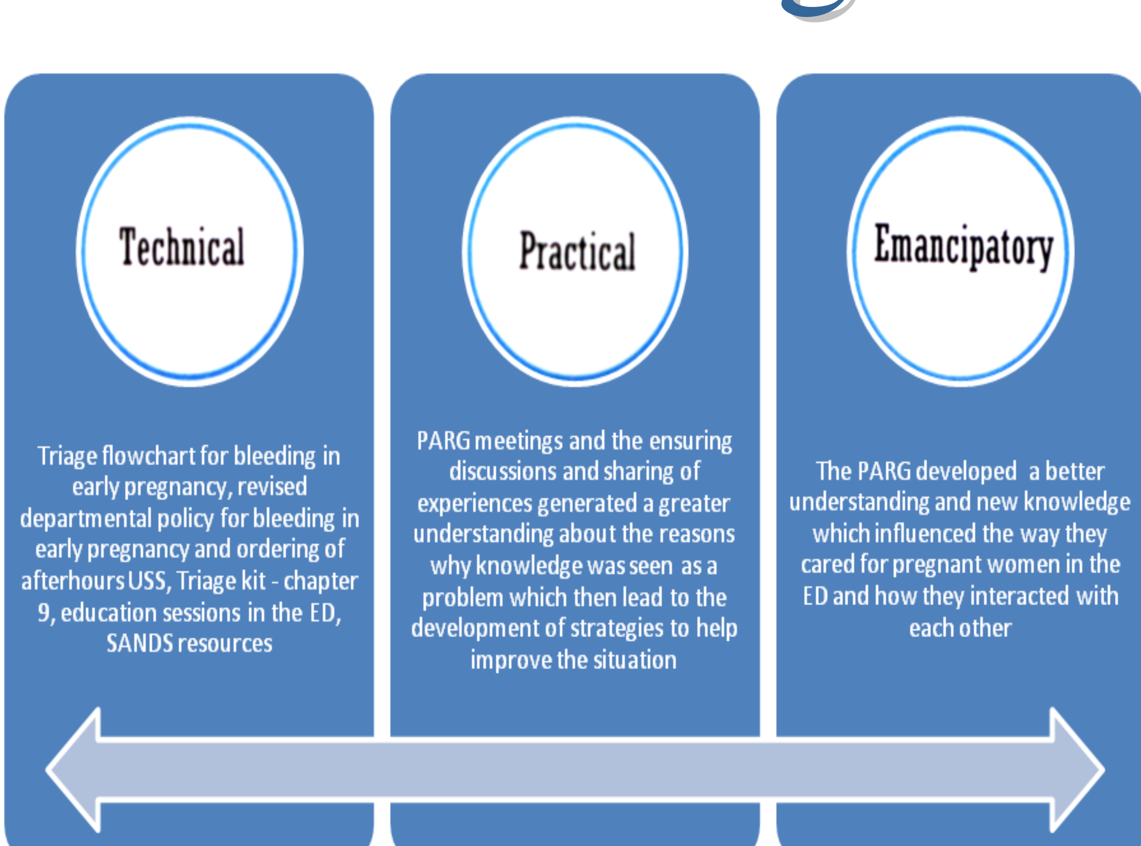
- At times, inappropriate referrals of pregnant women were being made to the birth suite by the ED triage nurse;
- The junior ED staff lacked knowledge and confidence when dealing with women with early pregnancy related problems and needed to be encouraged to seek advice from the senior ED doctors and nurses or the O&G doctors;
- Inconsistent management of pregnant women in the ED;
- Inconsistent advice and information given to women who experience early pregnancy loss;
- Triage nurses not adequately prepared to make triage decisions concerning pregnant women;
- Education occurring in silos across disciplines; and

- Lack of awareness about the psychological effects of miscarriage on a woman and her family, and knowing how to respond appropriately.

Changes implemented by the PARG members

The following changes, in respect of knowledge, were implemented by the PARG after consultation with staff from both departments and key stakeholders (see Figure 7.1). As mentioned in chapter six, changes were implemented at different times throughout the research, with some changes occurring throughout the entire continuum of the project.

Figure 7.1 Changes implemented along the knowledge continuum



Consistency in triage decision-making and in the application of triage scores is an important aspect of safe triaging (Crellin & Johnston, 2003). Therefore, one of the strategies that the PARG recommended was the development of a one page flowchart that the ED triage nurses could use to assist when making triage decisions about women who had bleeding in early pregnancy (Appendix N). This flowchart was not intended to be used in isolation, but as another tool to increase consistency in the decision making relating to women presenting with early pregnancy bleeding. The flowchart recommended appropriate triage scores, and noted where the triage nurse could locate the woman while she was waiting to be seen. It also listed clinical assessments to undertake and 'history taking' questions to ask. As mentioned, this tool was to be used in conjunction with the triage nurse's clinical reasoning and judgment skills. This document was produced by one of the ED nurses in the PARG and circulated for feedback. Once the key stakeholders approved the implementation of the document, this was enacted and notices via the 'communication book' and the ED in-service sessions informed staff of its use. This one page document was laminated and kept at the triage desk. After approximately two months of use the triage flowchart was evaluated; this will be discussed shortly.

The policy document discussed earlier in chapter five: *Many Happy Returns* Hospital, ED Guidelines for 'Out of Hours (1700-0800 hours) guidelines for ordering USS for bleeding and/or pain in early pregnancy (1st trimester)', was reviewed and updated by one of the ED doctors in the PARG (Appendix O). Once again this was conducted collaboratively, with feedback from the other members of the PARG as well as from the relevant key stakeholders in the ED. This document is comprehensive in nature and provides a good framework for junior doctors to follow to help bridge the knowledge gap.

During the ED nurses' focus group a number of participants voiced their support of education sessions being run by midwives in the ED about common pregnancy related problems. This was brought up for discussion by the PARG and it was agreed that it would be a good idea in order to improve knowledge and educate the ED staff about appropriate referrals to the birth suite. One of the midwife representatives, in collaboration with the Clinical Nurse Consultant (CNC) educator in the ED, organised a number of sessions to be run during the already pre-arranged timeslots for in-service

education in the department. The topics covered were ‘bleeding in early pregnancy’, including possible psychological effects on the woman, and ‘nausea and vomiting in pregnancy’. The added bonus was the networking and collaboration opportunities that occurred as a consequence of these sessions and working together to provide education across the disciplines. The ED doctor also organised for one of the education sessions for the ED doctors to be delivered on early pregnancy bleeding and assigned one of the registrars to prepare and deliver the session.

At the end of 2007, a new triage training program for Australian hospital EDs was released by the Department of Health and Ageing to improve the consistency of triage across the country (Gerdtz, et al., 2008). It was referred to as ‘The Emergency Triage Education Kit’ (see Figure 7.2). I contacted the principal author of the kit and she kindly arranged to have two of them sent to me; the ED had one of the kits already. The PARG reviewed the training program, specifically chapter nine of the kit, which was titled ‘Pregnancy and Triage’ (Appendix P). The kit contained a number of different case scenarios, relevant assessment information and a self administered post-test that was to be completed at the completion of each chapter. The PARG felt that it would be worthwhile to encourage all triage nurses to complete chapter nine within the next three month period. To enable this to happen one of the ED nurses elected to prepare a powerpoint presentation about the emergency kit and deliver it at the next in-service opportunity and also oversee the progress of whether triage nurses had completed the post test. Members of the PARG from the ED and myself discussed this with the ED CNC educator who was supportive of this project going ahead. The powerpoint presentation was delivered by an ED PARG member who remained vigilant with following up triage nurses to make sure they were progressing with the chapter content and post test.

The final strategy was the development of a resource folder containing information pamphlets from the Stillbirth and Neonatal Death Society (SANDS). I was able to secure a collection of suitable pamphlets that SANDS felt women would find helpful if they had experienced a pregnancy loss. The folder was clearly labeled and kept in the designated O&G room in the ED (see Figure 7.3). The resource folder had an added benefit of providing the ED staff with information as well, which outlined strategies that could be employed to help support a woman following an early pregnancy loss.

Figure 7.2 Emergency triage education kit: Triage workbook

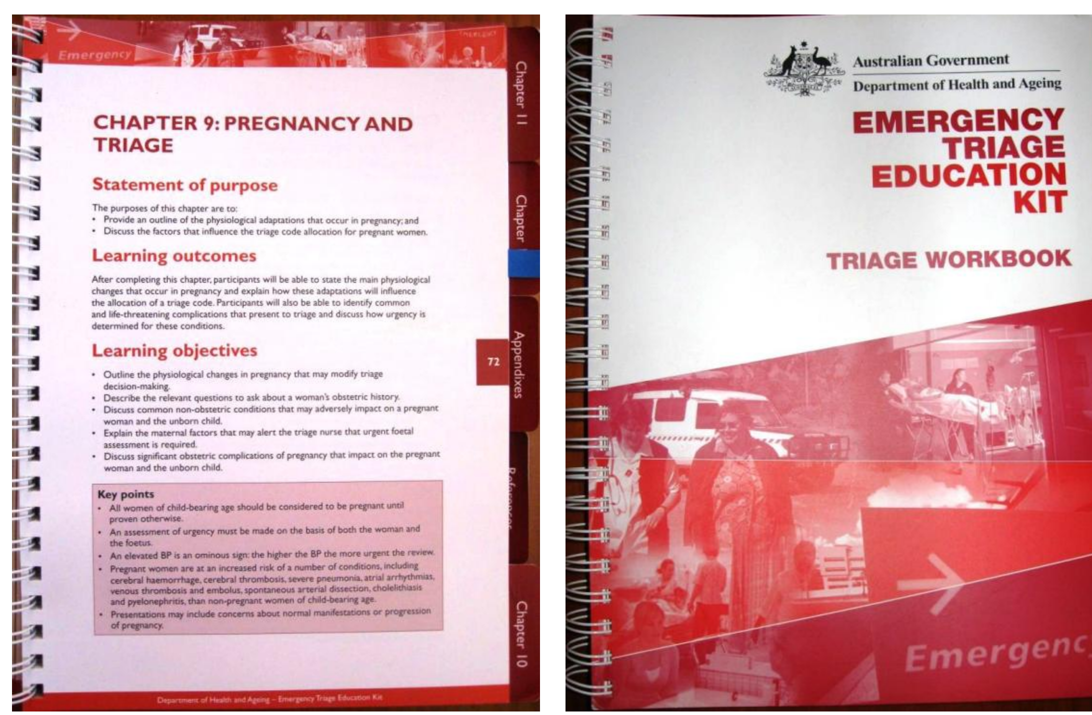
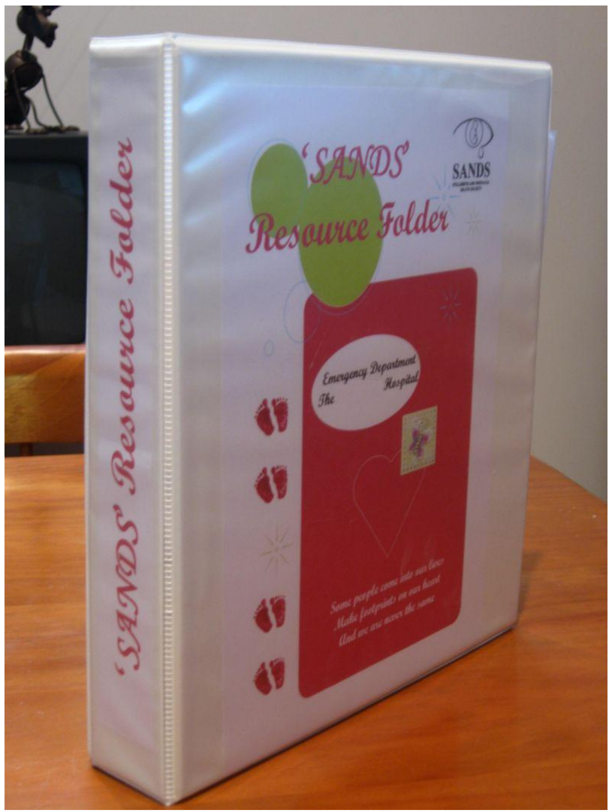
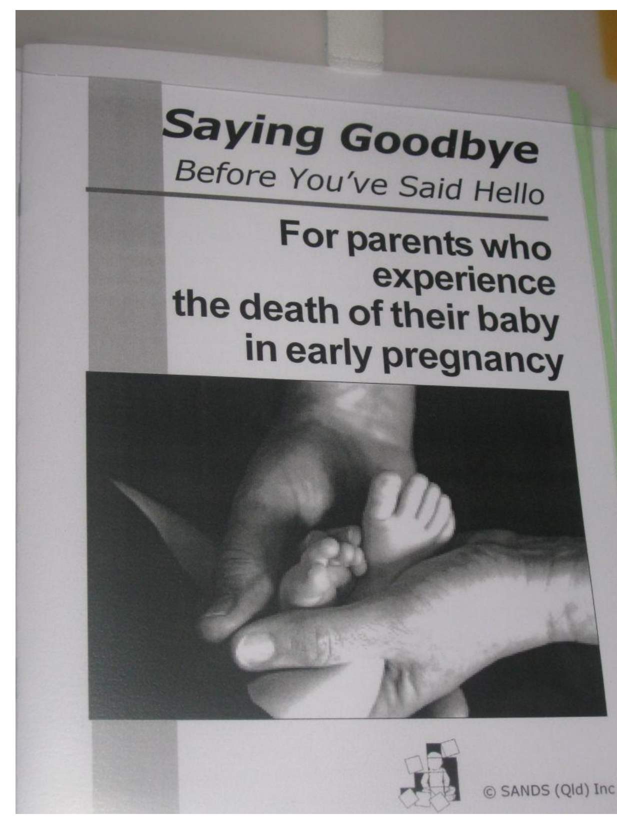


Figure 7.3 SANDS resource folder and one of the many pamphlets





Evaluation of the changes by the PARG members

As with the evaluation of changes that were implemented to help with communication in chapter six, the evaluation of the above strategies to help with knowledge acquisition were also conducted using a number of different formats and at various stages of the PAR project. The triage flowchart was evaluated using a survey questionnaire (Appendix M). Thirteen triage nurses completed the evaluation form and the results are displayed in table 7.1. The results demonstrate all but one triage nurse that completed the survey were aware of the flowchart and a significant portion had used the flowchart and found it helpful. When asked why it was considered helpful, comments included: it helps staff who are not familiar with bleeding in early pregnancy; gives a clear explanation of appropriate triage category and provides clues to gain further prompts for questioning and assisted triage assessment of patients.

Verbal feedback received from one of the ED triage nurses who was also a midwife suggested some changes to the flowchart. These were being incorporated by the ED PARG member, in collaboration with the ED midwife, with a plan to re-evaluate after approximately six months. There was also feedback included in the minutes of the Level 2 Registered Nurses' meeting notes, which stated that the flowchart and the advice sheet were "very helpful and really good".

A verbal report received from the ED PARG member who was overseeing the implementation and progression of the triage nurses' completion of chapter nine of the emergency triage education kit was positive. The powerpoint presentation was positively received and 80% of the triage nurses had completed chapter nine of the emergency kit and found it worthwhile. A verbal report was also received from the ED doctor in reference to the revised and updated policy. It appeared to be more 'user friendly' and was more accessible in the department as it had been moved to where other pregnancy information was kept. The feedback below was received from one of the ED PARG doctors upon the research ending, demonstrating the ongoing process of reflection and evaluation.

Yes; actually we have just had a woman with an ectopic pregnancy who had a negative urine pregnancy test. So I am relooking at the protocol again so that if there is a high index of suspicion and the urine test is neg [negative] an ultrasound will still be done. So I am refining it after this feedback and making it better. So yes, I am and will continue on working on this (ED Doctor, 30/11/2009).

Table 7.1 Evaluation questionnaire results for the 'Bleeding in Early Pregnancy' flowchart

Questions Asked	Responses (N= 13 respondents)
1. Do you know what the 'Bleeding in Early Pregnancy' flowchart is?	Yes = 12 responses No = 1 responses
2. If so, have you used it?	Yes = 10 responses No= 2 responses Not answered = 1 response
3. If you have not used it, why?	▪ Not frequently in triage. I will encourage others to use it; ▪ I am a midwife and should know what to do.
4. Did you find it helpful?	Yes = 11 responses Not answered = 2 responses
5. Why was it helpful?	▪ It helps staff who are not familiar with bleeding in early pregnancy; ▪ Gave a clear indication for where the patient could be placed in ED and the triage category; ▪ Clearly set out; ▪ Clear explanation of appropriate triage category provides clues to gain further prompts to questioning; ▪ Provides for best category (triage) choice; ▪ It assists you in allocating most appropriate triage category and where to place in dept and hints to what questions you should be asking for a uniformed assessment; ▪ Gave a clearer picture as to how to categorise that person; ▪ Good prompt for assessment questions to ask, also good guide for triage category; ▪ Differentiating between the classification of the PV bleeding and pain to assist with triaging patient appropriately; ▪ Assisted triage assessment of patients.
6. In your opinion, are there any improvements that the flowchart needs?	▪ Great information; ▪ No x 4; ▪ Examples of how to gauge bleeding for example, half pad, full pad.

Verbal feedback was also received about the implementation of the SANDS folder. After about a month of the folder being 'in circulation' I asked for verbal feedback and I was told overwhelmingly that it was viewed as an excellent resource by the ED nurses. When I checked the O&G room for the folder some months after it was implemented I was unable to find the folder. I asked around and discovered that it had been removed from the room and was being kept in one of the Level 2 nurses' offices. When I asked the reason for this, I was informed that a number of staff thought that it would be better out of the O&G room so that women did not take pamphlets without staff knowing; it was thought preferable for ED staff to decide which women received pamphlets. This may have been to ensure that if the woman had questions or did not understand information in the pamphlet the ED staff member could provide assistance. However, I would have preferred the folder to be left in the O&G room, as I felt it would be utilised more by the ED staff if it was visible and more easily accessible. Furthermore, I did not particularly view women taking pamphlets from the folder as a concern. Ongoing reflection and evaluation by the ED staff will continue and refinements and changes will be made in light of future feedback.

Below are some final comments from the PARG members which suggest that the PARG meetings were seen as a good educational environment and that there is an ongoing commitment to working together to provide education for the ED clinicians.

> *I was thinking about the issues a lot more and I found the meetings a good education forum as well for the other staff as well as myself* (Midwife, 03/12/2009).

> *Definitely, I know that I have been liaising and working with [acting afterhours CNC ED] from the ED to find ways to better support the midwives that work in ED. I have let [PARG Member] know when the lunch time education sessions are on for midwives so [they] can relay this information to the midwives in ED. We are currently working together to set up an email group for the midwives in ED so that I can offer them support. [Name] has also started working in the skills centre facilitating MaCRM [Maternity Crisis Resource Management]; [they] has also asked if [they] can sit in on the scenarios to increase learning and knowledge. I believe that my job includes supporting all midwives*

regardless of where they work in the hospital. This has been a good opportunity for me to work with an action research group member in ED to put into place more strategies for this to happen (Midwife, 24/11/2009).

Conclusion

The main concern with knowledge was the inconsistency in triage and management of pregnant women when they presented to the ED. By identifying the key areas of knowledge deficit among the ED nurses and doctors, the PARG was able to implement strategies that were directly aimed at improving these identified deficits. The feedback received, both written and verbal, confirmed that the strategies were helpful in improving knowledge and therefore consistency of care. The final themed chapter is structured around the concept of care.

CHAPTER 8: CARE

"It is a very inconvenient habit of kittens (Alice had once made the remark) that, whatever you say to them, they always purr. If they would only purr for 'yes', and mew for 'no', or any rule of that sort," she had said, "so that one could keep up a conversation! But how can you talk with a person if they always say the same thing?"
(Lewis Carroll, Through the Looking-Glass)

Introduction

Alice's frustration is evident in the above Lewis Carroll quote. In a similar fashion, it is not uncommon for healthcare professionals to share the same frustration when dealing with a healthcare system that appears to say the same thing over and over again. There is not enough money, not enough resources and change is not cost-efficient, when strategies are being suggested to improve quality of care for people who are seeking healthcare services. It is not surprising and it is understandable when countless healthcare professionals adopt this same 'system speak' when interacting with people in their care; it is often easier to yield to the system, and avoid regular conflicts between what Habermas (1984) describes as the lifeworld and systems world, which can be exhausting for healthcare professionals. Another phrase used frequently by clinical colleagues is, 'you need to pick your battles'. Using Habermas' theory of communicative action to interpret this phrase, it means that surrendering to purposive rationality, that is oriented towards success rather than understanding, is essential at times to avoid burnout which in due course may eventuate in leaving the healthcare profession altogether. In fact, healthcare professionals need to learn to use strategic communication in order to secure best care for people in need of healthcare services. This was demonstrated in chapter six when the emergency department (ED) doctor used his communication skills to ensure pregnant women received their ultrasound scans (USS) quickly and without too much *angst*. It is also demonstrated in this chapter.

In chapter one, two examples were presented which illustrated sub-optimal care of pregnant women. One of the examples outlined a pregnant woman who presented to the

ED with asthma. The woman's asthma was well managed in the ED, but she was nonetheless admitted to the maternity ward for ongoing treatment and monitoring of her asthma. The midwife at the time believed this decision to be wrong because the woman required expert care from clinicians who understood the medical condition of asthma and therefore the woman should have been admitted to the medical ward. Superficially, this may seem quite easy to resolve, just admit the woman to the medical ward where she will be under the expert care of medical clinicians. However, this situation is complex and involves a myriad of external factors which directly impact on the decision as to which ward she should be admitted. The access block issue, for instance, which was discussed in chapter two, has a major impact on where admitted patients finally end up in the hospital. Regrettably, it is not always about going to the 'right ward' clinically speaking, but more about securing an inpatient bed (preferably within a designated time frame) somewhere in the hospital. The ED clinicians will at times negotiate directly with the ward (thereby avoiding the bed manager) to secure a bed in the appropriate ward, and then relay this information to the bed manager. It is prudent to review the concept of care before proceeding to view examples that illustrate this thematic concern.

Concept of Care

> Attention to the fundamental needs of those who receive nursing care (attention, comfort, nourishment, hygiene and so on) is central. It is also this component of health care that most concerns patients and their families. Most complaints in health systems around the world focus on a lack of attention to fundamental care needs and this is such an under-researched area. It is at the core of nursing and we nurses know more about it than any other profession or academic discipline. (Pearson, 2010, p. 94)

Over the years, there have been many 'caring theories', such as those formulated by Leininger, Ray, Mayeroff, Roach, Watson, Benner and Wrubel (Bourgeois & Van der Riet, 2012). Benner and Wrubel (1989) argue that caring means that people and relationships matter. Caring should involve developing a connection with the other person and it should be person-centred. According to Landers (2007) and McCance, Slater and McCormack (2009), person-centred care is focused on the individual and

affords respect for their beliefs, values and needs. Language plays a key role in delivering person-centred care. As described in chapter six, using dehumanising language such as ‘the miscarriage in the O&G room’ devalues the person to an “object with a symptom and a task that has to be attended to” (Bourgeois & Van der Riet, 2012, p. 505). Therefore, there is a close relationship between the use of language, effective communication and caring. Swanson’s (1991) theory of caring was influenced by interactions with parents at the time of miscarriage, and emphasises ‘being with’ the person emotionally by being present and available. This could simply mean checking on them regularly and seeing if they are comfortable: physical presence is a powerful indicator of care. Ray (2001) proposes that caring in nursing is contextual and is influenced by the organisational structure. In which case, caring in an ED context is predominantly influenced by the physical status of the patient as it is based around prioritising care from the sickest and most urgent problem to the least urgent; and, psychological care is secondary to physiological care. In a maternity context, caring is based around caring for pregnant women with pregnancy related problems or caring for healthy women through pregnancy, labour and birth and the postnatal period. Their normal context does not generally include non-pregnancy related problems.

Environment, policies and processes affecting care of pregnant women in the ED

Within this themed chapter of ‘care’ a number of examples will be shared to illustrate where psychological care was lacking and/or not woman-centred. Policies, processes and organisational structures in place at the time of the research, in particular the ED environment, the twenty week rule policy, the antenatal booking-in process, and the Antenatal Day Assessment Clinic (ANDAC), will be explored to understand how they came about and what effect they have on patient care. The purpose of identifying deficiencies in care is not to place blame on specific individuals, but to make known the realities of the situation for women in this region when faced with early pregnancy related problems.

The ED environment

This thesis has thus far identified that there are very few options available to women in this region, when they are experiencing early pregnancy related problems other than attending the ED for care. As the name suggests, ED's core business is to attend to people according to their degree of urgency and the potential threat their condition may pose to their life. As established in chapter two, a common presentation for women in early pregnancy is PV bleeding or pain and this tends to be classified as an non-emergency by the ED triage nurse as the woman's condition is haemodynamically stable and there is no threat to her life. Thus, three out of the six women I interviewed for this study had presented to the ED with bleeding and or pain in early pregnancy and were classified as non-emergency presentations. To develop a better understanding of what care is like in the ED environment from the pregnant woman's perspective, excerpts will be shared from a number of the women's stories.

Sue's story involved being a support person for her friend who was experiencing bleeding and abdominal pain when she was seven weeks pregnant. Sadly, her friend miscarried her baby in the radiology department toilet while waiting for an USS. When they returned to the ED Sue's friend was instructed to wait in the waiting room area of the department.

> *So we waited longer and longer. By this stage she was in a lot of pain, so I went around and asked the lady at the front counter can we please have some Panadeine Forte or something because, my friend is in a lot of pain, she is losing her baby. Umm and I said do you have somewhere that she can go and be by herself or in a private area and...because sitting with us was a chef who'd cut his finger and, you know just normal people…*(Sue, p. 4, 179-186).

This is a common scenario for women who or are experiencing a miscarriage in the ED. Regrettably, owing to busyness, overcrowding and access block issues the ED environment is often left with no beds or limited space (other than the waiting room) for many patients triaged as less urgent. Sue understood that her friend was not classified as being a 'physically' urgent case, but still her friend was losing a baby and this was a

devastating event in her life. Unfortunately, the triage nurse was unable to offer her a bed at that time.

> *Umm and so the nurse brought her out a panadol/panadeine and a blanket and she said this is the best I can do. There's that wooden bench [a bench that was located inside the main door of the department and just outside the triage area door] and she said you can lay on that. It's the best I've got, I'm really sorry...and I was thankful that she was caring enough to do that, but I was so sad because I just wanted to take her somewhere private and let her grieve and let her cry and let her be…*(Sue, p. 5 200-206).

When I first heard this I felt overwhelmed with emotion as I know how that triage nurse must have felt. There have been times in my career that I have desperately wanted to make a situation better for a patient in need, but have been unable to provide the care that was desirable due to the restrictions of the system in which I was working. This causes a terrible feeling of helplessness when health professionals are meant to be in the business of helping. According to Mishler (as cited in Nystrom, Nyden, & Petersson, 2003)

> Non-urgent patients in ECUs [emergency care units] appear to suppress the "voice of the lifeworld" in order to adapt themselves to the "voice of medicine". As a consequence, they try very hard to understand why other patients must be taken care of immediately while they themselves have to wait. Only by adapting to the "voice of medicine" is it possible to suppress the "voice of the lifeworld" and accept the lack of caring in respect of personal needs. (p. 26)

According to Habermas (1984), this is an example of colonisation of the lifeworld for the triage nurse. Ideally the triage nurse would have liked to have provided this woman with a private comfortable space to grieve for the loss of her baby without everyone in the waiting room watching her, but the best that the nurse could do was offer her a wooden bench to lie on outside her office.

Jodie' story commenced in December 2006 and ended approximately five weeks later, during which time she had attended the ED on approximately seven different occasions for hyperemesis gravidarium, intractable nausea and vomiting.

They were all for the same reason because of severe hyperemesis and so I basically was dehydrated and because it was my seventh pregnancy [Jodie had experienced hyperemesis with all of her previous pregnancies] I knew that I needed to go and get seen quickly and, so I just self referred straight up to ED. There doesn't seem to be a better system here…(Jodie, p. 1, 18-23).

Jodie was comparing the system here with a system she was familiar with in England. In England, Jodie would attend an early pregnancy unit (EPU) which was attached to the gynaecology ward and there she would be seen by experts in early pregnancy related problems. Jodie recalled how she would be looked after by experienced nurses and doctors that knew about hyperemesis gravidarium and knew her history, and as such she would be treated quickly and not have to wait for hours as she did in the ED environment.

I would be under their care [referring to O&G in the EPU in England]. So they would plan my fluids, they'd plan my management, they'd decide whether I needed admission [ ]...what happens here is you go to ED, they know I'm pregnant, they know I'm dehydrated, they give me two or three litres of saline and then they send me home. I don't see an obstetrician or gynaecologist (Jodie, p. 2, 77-79; 96-100).

This often meant that Jodie was seen by a different ED nurse and doctor each time, resulting in fragmented and inconsistent care. Jodie recalls that on one of her presentations to the ED the doctor asked her "do you not think you're at the stage yet where you need to see an obstetrician" (Jodie, p. 3, 113-114). Jodie definitely felt that she should be under the care of an obstetrician, but as she was not under the private healthcare system assumed that a consultation would have to be arranged via the ED. On this occasion, Jodie requested a referral to the obstetrician at the public hospital; the appointment date was made in December 2006 and the earliest time that Jodie was allocated a time to see an obstetrician was April 2007. I will discuss the reasons behind the time delay later in the chapter, when reviewing the 'booking-in' processes at this hospital. On Jodie's sixth or seventh visit (she couldn't quite recall) to the ED with the same problem Jodie asked:

> *please can you refer me, can you find out what happened about my referral to the obstetrician, please may I have a referral to the obstetrician [ ]...and she [ED doctor] actually rang them and they did come down and see me* (Jodie, p. 4, 159-161; 167-168).

I believe Jodie is using strategic communication here because she knows that she needs to see an obstetrician and she is driven by this goal. Her communication becomes success oriented (needing to see an obstetrician) and she strategically uses language such as 'please refer me' and 'please may I' to appeal to the doctor's sense of justice and desire to help. When she was finally seen by an obstetrician this is what occurred:

> *The obstetrician took one look at me and said you're in no fit state to go home, every time you turn over you vomit, you're trying to talk to me and your vomiting, you're not in a fit state to go home, you've got large ketones in your urine, you have to stay in…which I did* (Jodie, p. 4, 171-177).

This confirmed Jodie's belief that she needed to be under the care of an obstetrician. Interestingly, Jodie was not admitted to the maternity ward at this time as there were no available beds on the ward and instead was admitted to the short stay unit of the ED. She recalls being put beside a woman who had vomiting and diarrhoea, even though there were other empty beds in the area, which only made her feel worse. A number of hours later she was transferred to the maternity ward.

> *They changed the fluids I was getting, I had 50 % Dextrose, two bags of 50% Dextrose and for the first time kept down a small amount of food...first time in I don't know how long, umm so it was really nice to be under their care* (Jodie, p. 5, 220-224).

Twenty four hours later Jodie was feeling well enough to request to go home. She mentioned that she had four other children at home and did not like to stay in hospital for any longer than was absolutely necessary. Prior to her discharge she was seen by an obstetric consultant on the ward.

> *So I said what happens the next time, I really want to stay with you all because you know what you're doing for me, umm and we've got four children at home, it's nobody's fault, umm but if I could have a better plan for my fluids its...I've done this before in my pregnancies so the likelihood was that it was going to be ongoing, if we could have a plan for me to come in and have the right kinds of fluids on a regular basis then [ ] life would be easier for the whole family* (Jodie, p. 5, 234-44).

The consultant suggested that Jodie attend the ANDAC. The obstetric registrar that was accompanying the consultant agreed that ANDAC was an appropriate place for Jodie to go, but said that she would still need to go to the ED in the first instance as "she'd been getting into trouble for sending people around to ANDAC" (Jodie, p. 5, 247-248). This comment raises many questions about ANDAC, which will be discussed later in this chapter.

A final example that will be shared is from Laura's story. Laura had a positive experience when she attended the ED for a non-pregnancy related problem when she was 30 weeks pregnant. She found the ED to be the best place for her to have gone and recalls the staff being attentive and enquiring about the well-being of her baby, but their primary focus was on the injury to her hand. Laura was seen, received an x-ray and discharged home all within a two hour period. Throughout her time in the ED the nurses and doctors checked with Laura a number of times to ensure all was well with her pregnancy. "...they might have asked a couple times, yeah, whether there was more movement less movement or whatever, umm but yeah it really was not a concern for me" (Laura, p. 2, 75-77).

The evidence thus far suggests that the ED is an appropriate place for women with emergency and non-pregnancy related problems to be seen. However, for non-emergency pregnancy related problems, especially in the first 20 weeks of pregnancy, the ED does not appear to be an appropriate environment for these women to be managed. The ED's principal focus is on physiological well-being of patients; if EDs are to prevent deaths occurring, they must abide by the ABC mantra- airway, breathing and circulation. Although women who are experiencing a miscarriage require

physiological care, their requirement for psychological care, support and follow-up care is far greater (Clinical Update 143, 2011; Johnson & Langford, 2010; Swanson, 1999).

The twenty (20) week rule policy

Throughout the term of the research there were a number of cases where the 20 week rule was applied and some where it was not. When it was applied it did not guarantee consistently good outcomes for the woman and, by the same token, when it was not applied it did not always result in bad outcomes for the woman. As outlined in chapter five, the 20 week rule came into effect in 2001 with the opening of the new hospital. Previous to this, the separate maternity satellite facility negated the requirement for such a policy to exist, as most women presented to the maternity hospital and not the ED. The policy mandated that women who were less than 20 weeks pregnant were to be seen in the ED, regardless of the presenting problem. There were two available pathways for women who were 20 weeks pregnant or more; first, if the presenting problem was pregnancy related the woman was to be referred to the birth suite with a birth suite midwife as an escort and second, if the woman's presenting problem was not pregnancy related she was to remain in the ED for further assessment and management (Townsville Health Service District, 2001). Upon further assessment the ED doctors would determine if the Obstetrics and Gynaecology (O&G) medical team needed to be involved. The application of this policy largely depended on the knowledge level of the triage nurse, as was demonstrated in chapter seven when discussing what makes an inappropriate referral. It also depended on the knowledge and clinical decision making skills of the birth suite midwives, who were often telephoned by the ED triage nurse to discuss cases and seek advice about appropriate management. A positive outcome from the discussion of this policy, both in the focus group settings and PARG, was clarification and reinforcement that the birth suite midwives were happy to attend the ED and review a woman, especially if the woman was over 20 weeks gestation and the ED staff were unsure of the problem. This was seen as the preferred option, rather than transferring the woman immediately to the birth suite and discovering after the transfer that the birth suite was not able to provide the care the woman required.

The subject of the 20 week rule was brought up at the first PARG meeting and then discussed at a number of succeeding meetings. The PARG felt that the policy served as

a guideline for referrals to the birth suite, but clinicians still needed to use clinical judgment when applying the policy and not rigidly stick to the ‘20 week’ criteria. This was demonstrated in chapter five by the comment made by the O&G doctor. Some women may have only guessed their gestation, which then was used to form the basis of a decision on whether to send someone to the birth suite or not. Basing a decision solely on gestation was therefore not seen as appropriate, especially when the woman was between 18 and 24 weeks.

Early in 2008, I received an email from the Clinical Nurse Consultant (CNC) Educator in ED asking for the PARG to please look at the 20 week policy to see if it could be improved. The catalyst for this email was the case of a 27 year old pregnant woman and her family who presented to the ED just after one o’clock the previous morning. She was 18 weeks pregnant and was experiencing abdominal pain and PV bleeding. She was triaged, assigned a category three score, and directed to the waiting room as there were no beds available inside the ED. The department was experiencing access block issues as well as some major clinical events and there were nine other category three patients waiting. Just over one hour later (two twenty in the morning) the woman presented back to the triage nurse requesting to go to the toilet as she felt something was coming out. There was no other staff available at the time owing to the department being very busy that night, so the triage nurse escorted the woman to the O&G consultation room where she proceeded to birth an 18 week old foetus. The baby remained between the woman’s legs as the placenta had not birthed. This was incredibly distressing for all who were involved, especially the woman and her partner. The woman and her partner stayed in the room while the triage nurse summoned a doctor, who after seeing the woman and confirming that the placenta had not yet been birthed contacted the O&G registrar. At three thirty the O&G registrar negotiated a transfer to the birth suite so that the woman could have ongoing care.

When the PARG discussed this case there were a number of elements that needed to be understood. Firstly, why was the woman not placed in the O&G room earlier if it was available instead of having to sit in a busy waiting room? The ED clinicians explained that the room was not used overnight because there were no staff allocated to the room and it was therefore not considered as safe as the waiting room. In the waiting area, the triage nurse is able to visualise patients and therefore it is seen as a safer environment.

A suggestion was made to educate women and family members about the call buzzer to overcome this problem. However, as demonstrated by Cathy's story, this did not always bring help: "what if I had started bleeding, cause I buzzed quite a few times and no one came to me. It was only that [husband's name] actually went out and found someone" (Cathy, p. 15, 738-740).

Another element that needed to be discussed and understood by the PARG was the time delay between the woman giving birth to the foetus and her transfer to the birth suite. This took just over an hour, during which time the baby remained between the woman's legs covered by a sheet. Upon investigation of the reasons for this delay it was discovered that the O&G registrar originally contacted the maternity ward about two forty in the morning (prior to having seen the woman in the ED) requesting to transfer the woman to the ward so that a vaginal examination and speculum could be performed due to the retained placenta. The midwife in charge of the maternity ward for the night advised the doctor that there were no single rooms available on the ward and no adequate light source available in the four bed bays to perform the procedure, and that the woman was better to stay in the ED O&G room to have the procedure attended. It was reported by the ward midwife that the O&G registrar was not happy about this advice as they wanted to have a midwife with them and there were no midwives on duty in the ED that night. The ward midwife refused to leave the ward as there were three staff caring for 19 patients; the two other staff consisted of a graduate midwife and a student midwife. Following the conversation with the O&G registrar, the ward midwife received a phone call from the ED triage nurse requesting a bed for the woman. The ward midwife suggested that if the O&G room in the ED was not seen as suitable then the next best option would be the birth suite as the woman still had a retained placenta and would need examinations to be performed. The ED nurse contacted the birth suite, but as the woman was less than 20 weeks pregnant they initially did not agree to the transfer. The staffing in the birth suite on the night consisted of four midwives to one labouring woman; four staff to one patient. Subsequently, the O&G registrar negotiated the transfer to the birth suite which as mentioned earlier, occurred at three thirty that morning. Following the procedure in the birth suite, the woman was admitted to the maternity ward for follow-up care. This is a classic example of the application of the 20 week rule not being to the advantage of the woman and resulting in poor care.

Unpacking this situation with the PARG highlighted a number of factors. The 20 week rule is sometimes applied with no consideration to what is best for the woman. In this example, instead of using moral reasoning and empathy to determine the best location for the woman in order to receive the treatment and care that was needed, the decision was based on system rules with no regard for how devastating the experience was for the woman and her partner. Clearly, the birth suite could have immediately accommodated this woman on the night in question, or at the very least the birth suite staff could have offered to come down and assist the O&G doctor in the ED to perform the examination. However, they displayed distorted communication at first with the ED triage nurse, and only after the O&G registrar contacted them did they accept the woman for admission. Conversely, the senior ward midwife appeared to be acting with woman-centred care as her/his primary motivation. The midwife believed that the best place for the woman to have the procedure was either the ED O&G room or the birth suite, due to unavailability of a single room and poor lighting in which to undertake the procedure on the maternity ward. Furthermore, the midwife did not want to leave the ward with 19 patients, when the only other clinicians working that night were a new graduate and a student. This situation would have caused a significant dilemma for the ward midwife who was trying to assist by making alternative care suggestions in good faith, but at the same time was being pressured by the O&G registrar and the ED triage nurse to take the woman. If the circumstances had been different on that night, namely fewer patients, more highly qualified staff, and single room availability, the decisions made by the ward midwife may have been different. For this ward midwife, this is an example of colonisation of the lifeworld by systems, as she struggled with the dilemma of wanting to help the woman but knowing that the current system would not allow her to do so safely.

Another example articulated at one of the PARG meetings concerned a woman who was at full-term gestation and arrived at the triage desk in labour. Her 'waters had broken' and she informed the triage nurse that she was having twins. The triage nurse rang the birth suite to inform them of the arrival and requested a birth suite midwife to come down and collect the woman. The birth suite midwife relayed to the ED triage nurse that the unit was too busy to send someone down and asked the ED nurse if they could arrange for the woman to be escorted to the birth suite. The ED triage nurse refused, because the policy stipulated that the birth suite midwife was meant to come down and

retrieve the woman. The birth suite midwife then suggested that the ED triage nurse escort the woman to the hospital foyer and provide her with directions on how to navigate to the birth suite. Here, the policy is being used to justify distorted communication between the ED nurse and the birth suite nurse. Rather than considering what is best for the woman in this circumstance, they are concerned about adhering to a policy and using the policy as justification for their behaviour of insisting the birth suite midwife come and collect the woman. The desired outcome for the ED triage nurse was not to reach mutual understanding with the birth suite midwife, but rather to transfer the woman to the birth suite as soon as possible as per the stated policy. In contrast, another story shared in the ED nurses' focus group illustrated a situation in which communicative action was achieved between the ED triage nurse and the birth suite midwife. A woman who was 16 weeks pregnant presented with a urinary tract infection to the ED. The department at the time was extremely busy with high acuity patients and the triage nurse knew that the woman would need to wait a number of hours to be seen. The ED triage nurse decided to ring the birth suite to see if the midwife was able to see the woman.

> *Well I've sent someone up to birth suite at 16 weeks with a UTI, but we were just flat out down here and she was gonna be sitting down here for God knows how long. I liaised with birth suite and they said, oh the Reg is here, send her up.*

Both the ED triage nurse and the birth suite midwife viewed the needs of this woman as overriding the 20 week rule. Overall, the 20 week rule seems to be contentious among staff. It was agreed that the policy is a guideline, and ultimately it is necessary for staff from the different areas to work together to ensure woman-centred care is provided. Women experiencing miscarriages are presenting complex cases that require a team effort to manage both the physiological and psychological issues that arise with this tragic event. There is no straightforward answer for what is the best location in this hospital for women who are experiencing a miscarriage (ED, birth suite or maternity ward). There are solid arguments for and against each of these areas. However, there are certain cases and occasions when the circumstances surrounding the woman and the situation may indicate a preferred option to ensure woman-centred care is in the foreground and not the background. The aim agreed to by the PARG was to promote clinicians to view the situation in context with what is happening, keep the lines of

communication open between staff, and make decisions based on what is best for the woman and family and not hold rigidly to a policy that may be causing more harm to the woman.

Antenatal 'booking-in' process

'Booking-in appointment' is a term used to refer to the first official antenatal appointment, on which occasion a full history and antenatal assessment is completed. Within the public health system, this can be completed by a midwife or O&G doctor, whereas in the private health system this is usually undertaken by the obstetrician. It is usually recommended that this takes place by 12 weeks of pregnancy and not prior to eight weeks, due to risk of miscarriage being higher during this time (BabyCentre, 2011; Mater Mothers' Hospital, 2006).

At one of the PARG meetings I was eliciting advice as to where to locate the recruitment flyers for women's interviews in the antenatal clinic area, when it was suggested that I would be better off putting the flyers in the ED waiting room.

Midwife 1:	*especially since most of the women don't get booked-in before twenty weeks*
Nikki:	*oh, that is one thing that I have learned. I didn't realise booking in was so late*
Midwife 2:	*well it's not suppose to be, but it is…*
Nikki:	*because it's so busy, yeah*
Midwife 2:	*No. It's the system, it's the system here that [name deleted: referring to an obstetrics consultant] insists that they all have referrals from GPs*
Nikki:	*okay, so that's what takes so long*
Midwife 2:	*yeah, it slows it down, yeah and then every referral has to go through the consultant…no other hospital in…*
ED Nurse:	*far out…*
Midwife 2:	*and the GPs have just told me, I've just come from a meeting with them, that it takes eight weeks to get a booking-in appointment here.*

Nikki: *yeah, that's a long time, two months, that's a long time*

Midwife 1: *they should just book it through midwives*

Midwife 2: *I just told them they could [laughter from the group]*

This provoked a conversation about Jodie's story, specifically the delay in getting an appointment with the antenatal clinic to see an obstetrician. For the benefit of the rest of the group the midwives in the group explained why this process occurred this way. Historically, the past director of O&G had made a decision that all women had to have a referral letter from a GP before being permitted to make an appointment with the antenatal clinic. This traditionally meant that the first booking-in appointment at the hospital was generally when the woman was 18 to 20 weeks pregnant. The woman would be instructed to have all the preliminary tests (bloods, USS) done by the GP before presenting for their first booking-in appointment at the hospital. The alleged reason for this was that the director at the time felt strongly about providing this work for the GPs. Unfortunately, I was not able to establish exactly why he/she felt strongly about providing work for GPs, but it may simply have been as a means to shift workload off busy hospital staff. The decision or 'rule' as it was referred to by the midwives, had persisted even though the directorship had changed, although it was noted that he/she still worked for the hospital and wielded considerable power within the antenatal clinic area. Therefore, if the woman did not have a GP or had chosen not to see a GP she would be strongly advised by the 'booking-in appointment people' to attend to this so that a referral letter could be generated and the preliminary investigations could be completed prior to her first appointment time, which still would be booked around 20 weeks. Apparently, there is a checking system in place such that all the referral letters get sent to the current director for an approval signature. If a woman does get seen in the antenatal clinic without a GP referral letter, the administrative staff would, according to the PARG midwives, be in 'trouble' with the director for making the appointment. Since the administrative staff were fearful of getting into trouble they were reluctant to make an appointment without the woman having a referral letter, even if a clinic midwife directed this course of action.

The direct consequence of a late booking-in process is that pregnant women, well into the second trimester of their pregnancy, will often present to the ED with little or no antenatal care. This provides the ED staff with no information about their pregnancy,

what pregnancy tests have been undertaken, or the results of such tests. Ideally, women should have the option to produce a 'hand-held record' of their pregnancy progression but, because a significant number of women have not had their booking-in appointment and also chosen not to attend a GP, they are not afforded this option. During the ED nurses' focus group it transpired that a number of nurses did not even know that such a record existed or what it was, because they had never had a pregnant woman produce a hand-held pregnancy record for them. The other direct consequence, as seen in Jodie's story, is the need for pregnant women to repeatedly present to the ED because they cannot secure an appointment in the antenatal clinic prior to 20 weeks. This results in inconsistent care, and extreme turmoil and dissatisfaction for the woman.

Even though this process had been in place for many years and a significant number of midwives were aware of it and disagreed with it, the process still existed. In Habermas' theory, practical or hermeneutic knowledge "seeks to clarify forms of life and traditions but in doing so tends to leave them unchallenged" (Crossley, 2005, p. 180). Crossley contends that according to Habermas, practical or hermeneutic knowledge manifests a conservative instinct to preserve the status quo, even though it aims to understand it. In this instance, a significant number of midwives understood what was happening and why, but were powerless to change the situation. The midwives in the PARG decided to challenge the system by informing the GPs that they could book antenatal appointments for women directly with midwives, bypassing the 'booking-in appointment people'. This represents an emancipatory knowledge interest in that these midwives made a decision to no longer be oppressed by the booking-in process and instead bravely challenge the system so that women could receive better care.

Antenatal Day Assessment Clinic (ANDAC)

Earlier in this chapter the ED environment was questioned as to its suitability for pregnant women with non-emergency, pregnancy related problems; but what are the other options available to women? I initially discovered that ANDAC existed when I conducted the midwives focus group and at the time I made a note in my research journal to further discuss ANDAC with the PARG once it was established. As mentioned in chapter five, the general consensus in the midwives' focus group was that midwives or a gynaecology nurse should care for women who were having a

miscarriage. However, they did not agree that the birth suite or the ED were suitable environments for women when experiencing a miscarriage. At the time of the focus group one of the midwives mentioned "we used to have ANDAC, this helped". For that reason, I initiated a conversation about ANDAC at one of the early PARG meetings. I enquired about whether it existed (as there had been conflicting views) and if so, what was its purpose.

Midwife 1: *Yes, but it doesn't even work for birth suite, so I can't see it working for emergency*

Midwife 2: *It doesn't work appropriately; it hasn't got the right criteria I don't think. They don't have any allocated medical officers and to run a service like that and use it properly you have to have an allocated medical officer*

O&G Doctor: *It still exists, but it is not an early pregnancy clinic. When they talk about an early pregnancy clinic, they are really referring to a designated early pregnancy clinic that usually runs in the morning, usually has a sonographer, a consultant and/or registrar and nursing staff for you to deal with the follow up patients from that situation. Problem is we don't have the space, the staff, or the facility to run one at the moment. Now ANDAC is a defacto service and it is not even really suppose to be seeing those kinds of patients, even though we do, it's suppose to be an antenatal day assessment service which is for antenatal patients who can't wait until their next clinic appointment. So sometimes we do see some early pregnancy problems, but it is not really the role of the clinic…it does have an allocated medical officer, but the allocated medical officer also has duties as birth suite registrar. Now the thing is…*

ED Doctor: *Ahh, geez that's busy*

O&G Doctor: *The thing is, the thing is, and that's the biggest problem with ANDAC and that's the reason why we don't have an early pregnancy clinic. We don't have, we don't have… umm let me give you a bit of a background. ANDAC runs best if you have good protocols and a good midwife and the patients are coming*

for a specific reason. For example a patient who gets identified in clinic who has elevated blood pressure and needs to come, can't wait another week for an antenatal visit, needs a visit in a few days time to check on the blood pressure. Now that patient comes to ANDAC for a very specific reason. They need a blood pressure check and some routine bloods and just chase the results. If you have a good midwife running the ANDAC all she has to do is ring the birth suite registrar and say I've got Mrs X here, this is her story, these are her results, what would you like me to do. And if things are good the registrar should be able to say to the ANDAC midwife she's fine we don't need to do anything more, she can come back for clinic visit next week. When you start looking at gynaecological based problems, follow up of miscarriage, ultrasound reviews, follow up of HCG's, your midwife can't deal with those on her own. What it needs is a medical officer to come down and look at the stuff and do it. The problem is, if you are the birth suite registrar and you are caught up in birth suite and you are the person assigned to cover those patients it's sometimes physically impossible to do it. So it is a bit of an in-between thing about, so where do they go. So to some extent they are better off coming back either to their GP or the ED

There are a couple of points which need to be highlighted from the above comments made by the O&G doctor. Firstly, the reference to having a 'good midwife' implies that there are obviously 'bad midwives' working in ANDAC. I tried to explore this more and was informed by both the O&G doctor and the midwives that there were a number of midwives who were reluctant to act without a doctor's directive and did not show initiative. These midwives, supposedly, did not want to take responsibility for caring for pregnant women in ANDAC without the doctor present or easily accessible. I am not sure whether this is due to a lack of knowledge, lack of confidence, working within a medicalised system for so long, or alternative reasons.

The other point emerges from further expanding on Jodie's experience of trying to access ANDAC. Above, I mentioned that Jodie was advised that she could go to

ANDAC, but needed to first present to the ED and be transferred. On Jodie's next attendance to the ED, which was about four days after her discharge from the maternity ward, she informed the ED triage nurse that she was 'allowed' to go to ANDAC to be cared for. The triage nurse telephoned ANDAC and was informed that Jodie could only be brought around if she had an intravenous (IV) cannula inserted and IV fluids had been ordered, as there was no doctor available to prescribe treatment. Therefore, Jodie was taken inside the ED, seen by a doctor and IV fluids were commenced. Jodie was left in the ED for a number of hours and eventually asked the ED doctor when would she be going around to ANDAC. The ED doctor did not know what ANDAC was and said:

> *Oh look I'm sure we can sort you out here...it was almost as if he wanted to prove that he could make me better rather than me needing to go under the care of the obstetricians. He was really nice, like no-one's been horrible to me, but...but they're focused on straight forward dehydration, they're not focused on an ongoing problem with a lady who's pregnant...*(Jodie, p. 7, 342-349).

Jodie said that she persisted in asking to be taken to ANDAC as she wanted to be under the care of a midwife and an obstetrician who were used to caring for women with hyperemesis and understood the condition. On a previous occasion, one of the ED doctors had remarked to her:

> *You don't need fluids, this is all in your mind, it's because you're from England and you haven't got any family around you. I have enough issues that I...with the trouble that I cause by being pregnant to my family without doctors telling me that it's all in my head [Jodie is crying], so I'm terrified when I go in there [ ] I feel like one of those flippin Munchhausen people, going in and saying I, I need fluids, please can you warm them because I get so sick when you put them in so fast when they're cold, and it hurts. I'm so cold inside and I'm shivering so much and the ED's so cold anyway, it just feels like I've got this long list of demands, I don't see the same doctor twice, so nobody, even though you tell them you've been in before, nobody's making any real...seeing any patterns* (Jodie, p. 8, 387-393; 401-410).

After a number of hours, Jodie was taken around to ANDAC where she was cared for by a midwife in a quiet and peaceful environment, which was more pleasant and comforting that the busy and hectic environment of the ED. She was not reviewed by a doctor, but received a message via the midwife that the doctor had reviewed her notes and had decided she was not a suitable candidate for ANDAC services.

> *...the message was that I was not to come back to ANDAC again; ANDAC was only for women over sixteen weeks pregnant, which is just fantastic because hyperemesis is worse for all of us in the first trimester.[ ] It's rubbish. So I left there feeling really unhappy and I'm…like I'm just a nuisance to everybody. ED is telling me why aren't you seeing the obstetricians, the maternity clinic won't have me, my appointment which had come through as a consequence of those two written referrals was for the 24 April and we were just sitting in the beginning of January. None of it was any help to me. I mean all the nurses and all the doctors in ED this time were all fantastic. Like everyone was really kind they treated me with lots of respect, they gave me the fluids, everyone was very sympathetic [ ]... the people that could treat me well, I can't get to them* (Jodie, p. 9, 437-441; 446; 450-461; 470-471).

Jodie attended the ED again for fluids and then went for a USS which had been booked from when she was admitted to the maternity ward a few weeks earlier. At the time, they had also booked an appointment with ANDAC so that Jodie could receive her USS results. She was told at ANDAC that the scan showed no heart beat and the baby had died; this was January the eighth.

> *We [referring to her husband] left just being told that if nothing had happened in a month then I needed to contact…I don't even know who I had to contact. I don't know if it was the hospital or my GP. Um but then as we were walking down the corridor the nurse came chasing after us and said the doctor needed to see us again and, it was, he had obviously discussed it with his seniors or something, anyway to say that I needed to come back to ANDAC in a week. It seems if your baby is dead you're welcome; if your baby's alive you're not welcome [Jodie was crying throughout this]* (Jodie, p. 12, 572-583).

This was a devastating and very sad event for Jodie and her husband, made worse by fragmented inconsistent care and the feeling of not being wanted by anyone. It seems that the purpose of ANDAC is poorly understood by staff, and at times it worked well for some women and at other times it did not. The O&G PARG member was quite passionate about this topic and was able to explain some of the reasons why ANDAC was not functioning to its full capacity as presented above. Some suggestions from the group to help improve this service's potential included the possibility of developing a full-time resident position in ANDAC, similar to what is done in ED with the streamlining or fast track service which is offered. In this way, a doctor would be available at all times. This suggestion was not 'taken up' by the O&G doctor, although most of the other members thought it was a viable idea. Instead, this suggestion was deflected with a comment about the director of O&G having plans to open an EPU, which is an early pregnancy unit, once staffing was better. Even though this conversation started out as communicative and balanced, I felt that when the topic of an EPU was raised the conversation became distorted as the O&G doctor started to focus on 'ownership' issues rather than *how* to provide such a service. The group discussed the possibility of opening an early pregnancy service within the ED, as the ED doctor felt that he/she could help with this.

> *ED would be proactive. Space wise this is something we could work together with. If you wanted an early pregnancy clinic then this is something we would be very proactive about trying to help with. We could get space in ED to do it.*

Once again, this suggestion of working collaboratively with the ED to open an EPU was ignored by the O&G doctor. Following the meeting, one of the midwives stayed back and spoke further with me about this. The midwife was in favour of working collaboratively with the ED to establish the service, but said that it would be a "turf war, because the director of O&G wants it situated in either clinics or ANDAC to have control over it". The midwife strongly believed that the 'O&G doctors' would not consider the possibility of a collaborative early pregnancy service with the ED, for fear of not having control over the running of the service.

Problems identified by the PARG members

The findings above suggested the following problems:

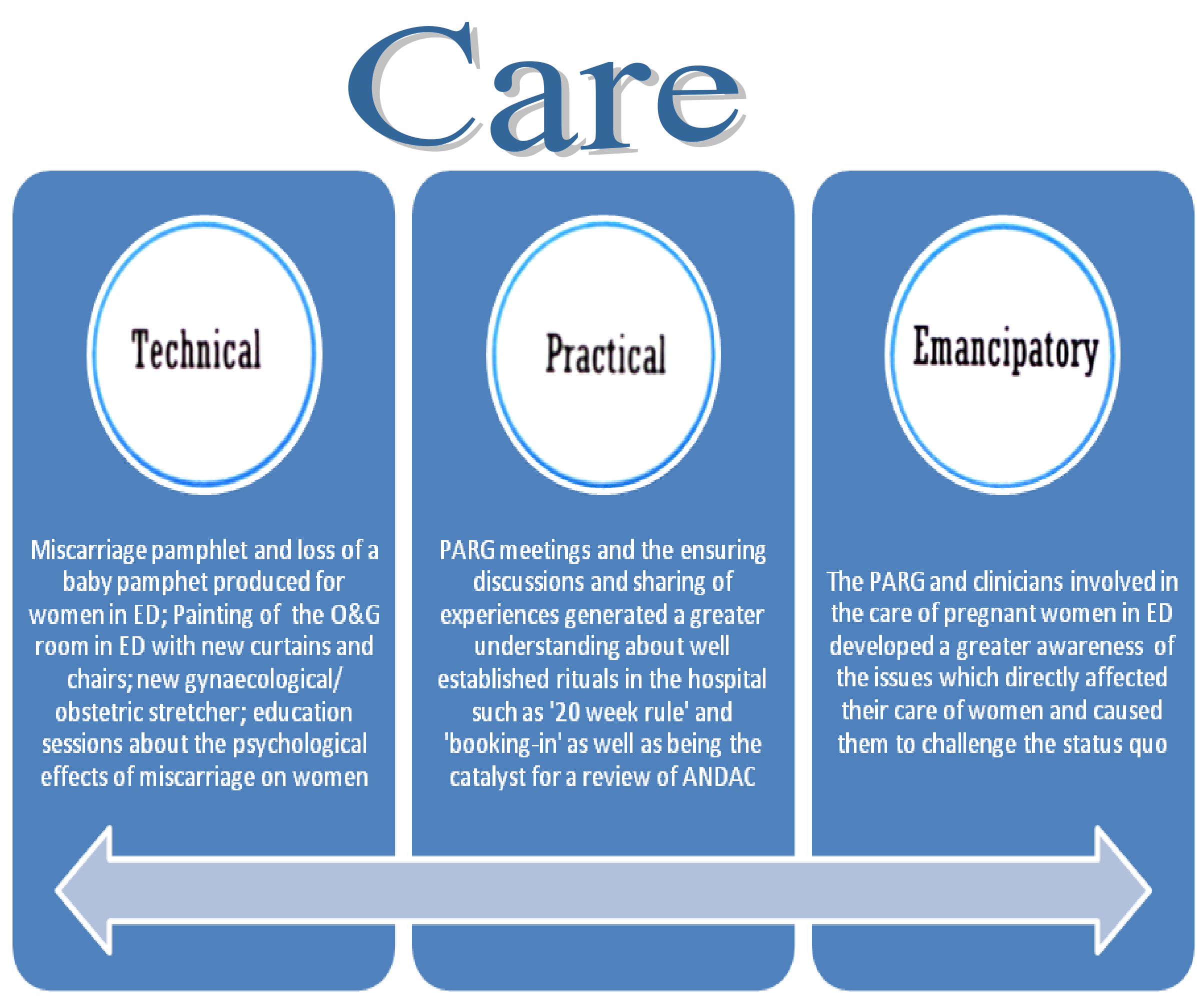
- Inconsistent care provided to women who present to the ED, especially concerning psychological care and follow up;
- Lack of understanding by the ED staff and the maternity staff about the psychological effects of miscarriage;
- Lack of clinical reasoning, judgment and compassion shown by both the ED staff and the birth suite staff when applying the 20 week policy;
- The antenatal 'booking-in' process was dysfunctional and rooted in historical preferences of a past director of O&G and not based on evidence based practice and woman-centred care principles;
- ANDAC was not well known among the ED staff and was operating at sub-optimal capacity; and,
- The ED environment was not appropriate for pregnant women who presented for non-emergency presentations in early pregnancy.

Changes implemented by the PARG members

The following changes were implemented by the PARG after consultation with staff from both departments and key stakeholders (see Figure 8.1). As with all changes, implementation occurred at different times throughout the research, with some changes occurring throughout the entire continuum of the project.

With the aim of improving the ED environment for the woman, a number of strategies were implemented. The designated O&G room in the ED was painted and new curtains were made. The Stillbirth and Neonatal Death Society (SANDS) donated the paint and curtains for this to occur. Additionally, SANDS also donated two comfortable arm chairs for the room. One of the ED nurses who also was a midwife sourced some additional pamphlets and information to place in the room, which complemented the SANDS resource folder. This information was available to women, families and staff.

Figure 8.1 Changes implemented along the knowledge continuum



In terms of improving the ED environment even further a member of the PARG felt strongly that a proper gynaecology/obstetric stretcher was needed in the O&G room, opposed to a normal ED stretcher which currently occupied the room. The PARG member felt that care would be enhanced when performing vaginal examinations if the equipment was specific to the task. They also thought that from a teaching perspective it would be much easier for junior doctors to learn how to perform vaginal examinations if the right equipment was available. Not all members of the PARG necessarily agreed that care would be improved with the addition of a gynaecology/obstetric stretcher in the O&G room in the ED, but had no objection with this being pursued. The PARG member worked gallantly for over a year to raise the money needed to purchase the bed, which included a number of raffles and also advocating for money through administrative channels. Finally in March 2009, $10,000 was allocated from the

Queensland Health quality improvement initiative in the ED and the remainder of the money was contributed by the hospital administration. The new gynaecology/obstetric stretcher arrived in the department on 23 June 2009 and an official ceremony marking the occasion was arranged by the PARG member and took place on 8 July 2009 (see Figure 8.2). With the refurbishment of the room the PARG promoted the use of the room for women experiencing early pregnancy loss whenever it was considered safe to do so.

Figure 8.2 The new gynaecology/obstetric stretcher for the O&G room in the ED

The local paper and the hospital media were in attendance to record the auspicious event. Below is an email sent from the PARG member to the rest of the PARG.

> *The long awaited Emergency Department Gyne Stretcher is here!!! Thanks to all who supported me in my endeavour to purchase this piece of equipment for the ED. You are all invited to join me for champagne, sparkling apple juice and treats at 3 pm Wednesday July 8th in the ED gyne room. Please pass this message on to anyone I have missed in this email.*

The 20 week rule underwent a review by key stakeholders within the hospital and sought recommendations from the PARG. In light of the incident described above, the

policy was amended to include consideration to caring for women 'inside' the ED, preferably the O&G room, who are less than 20 weeks and may be experiencing a threatened miscarriage; if the woman was not able to be cared for inside the ED and requires higher level care than can be provided in the ED waiting room then the O&G registrar is called to facilitate an O&G admission; and the focus is to be on the woman and her family's needs.

Another strategy advocated by the PARG was to provide informative pamphlets/ brochures with the purpose of providing support and follow-up information for women who had experienced an early pregnancy loss. The pamphlets were promoted as beneficial in assisting with psychological care. It was decided that I would speak with the social work department at the hospital to start this process. I met with the social worker assigned to the ED and we discussed a number of suggestions that would be appropriate for women who had experienced an early pregnancy loss. Ideas emerged and were translated into two separate pamphlets. Once both pamphlets were in draft format they were distributed to the PARG and key stakeholders for feedback and comment. Because of this collaborative process it took a number of months to transition the pamphlets from a draft format to the final product. The first pamphlet was titled "miscarriage, some helpful information" and the second pamphlet was titled "loss of a baby, in your time of grief" (see Appendix Q). Both pamphlets contained contact information for resources for psychological support and also supplied answers to questions that the social worker was commonly asked by women, such as 'what happens to my baby now?' and 'what happens to me now?' Both pamphlets became available to the ED to distribute to women mid 2009. Additionally, all women who had presented with a miscarriage were noted in the ED-based social worker's communication book for telephone follow up within 48 hours.

Furthermore, it was decided to enquire whether a contact person from SANDS would be willing to be available as a 'support person' if a woman was alone in the ED and experiencing a pregnancy loss (see Appendix R). In Kim's interview, she mentioned that her husband was working away but fortunately had her mother to accompany her; for many other women in similar situations this may not be the case. The township has a high population of military and fly-in-fly-out workers, where partners are often away from home due to work commitments. Therefore, the implementation of a 'support

person' to be with the woman was seen as a good strategy and is viewed as a valuable caring attribute by Swanson (Swanson, 1999). The information sheet containing the support person's name was kept at the triage desk.

As noted earlier, the most significant potential change discussed by the PARG was the establishment of an EPU, early pregnancy unit, at the hospital. Even though all group members were in agreement that an EPU would definitely help improve the care pregnant women received at the hospital, plans for a service did not progress during the course of this research. This was mainly due to barriers erected by the O&G doctors, who supported the idea, but wanted to take ownership of the service and bring it to realisation themselves, once they had sufficient resources to move forward with establishing the service.

> *I would have liked to see greater participation by the O&G people. I thought at times some comments made [outside of meetings] like the EPU is our unit [referring to the O&G department] and it will not go ahead without us doing it was not helpful. They seem to have an ownership issue rather than being more collaborative* (Midwife, 03/12/2009).

A recent conversation with midwifery colleagues at the hospital suggests that this will eventuate by 2013. These services are operating in a number of organisations in Australia and have been deemed successful. At the Flinders Medical Centre, in Adelaide, a team of ED nurses established a service in their department and claimed that the journey for women experiencing bleeding in early pregnancy had greatly improved (Flinders Medical Centre, 2008). An interim suggestion made by the PARG was to advocate for a midwife to be on duty in the ED between eight o'clock in the morning and five o'clock in the afternoon, and this is an ongoing recommendation.

In reference to ANDAC, I volunteered to elicit further information about the running of the service by speaking with the Clinical Midwifery Consultant in the antenatal clinic area through which ANDAC is administered. This person did not consider that there was a problem with the way ANDAC functioned and felt that it was a useful service as it stood. I then approached a number of the Level Two midwives who worked in the clinic area and was given conflicting viewpoints on the ANDAC service; some thought

it was working well, while others felt it was poorly run and not used to its full potential. I also spoke with a number of midwifery key stakeholders about the service and voiced the concerns of the PARG about the service operating under-capacity and under-resourced. This initiated a complete formal review of the ANDAC service which was conducted by a Clinical Nurse Consultant (CNC) midwife. The results of the review, conducted at the end of 2009 and beginning of 2010, confirmed that the service was operating poorly and not at capacity, and that the services offered could be extended if the midwife was given more autonomy by implementing practice guidelines which could be followed in the absence of a full-time doctor. Even though recommendations for improvement of the service were made, upon evaluation of the service in 2011 it was still noted to be operating poorly and did not embrace the recommendations suggested by the review. I believe that the past director of O&G along with some strong midwife supporters in the clinic area were able to maintain the status quo, with which they obviously felt more comfortable. This year (2012), a second review was conducted on the ANDAC service with the intention of raising awareness about the service again and improving the way it is run. I am unaware of the recommendations from the second review, although I suspect they would probably be similar to the first set of recommendations.

In addition to the ANDAC review, awareness also grew outside the maternity area about the booking-in process. Even though there had not been any notification of the booking-in process changing, the reality was that midwives were advising women and GPs to contact them directly at the clinics and they would make appointments for women without the requisite GP referral letter or having to wait the standard 20 week timeframe. However, the established process is so entrenched within the system and has been sustained over so many years, that it will take a long time to truly change the views and behaviour of most O&G doctors, clinic midwives and booking-in appointment receptionists.

Changes also occurred in the way the ED staff and the birth suite staff behaved and interacted with each other. The development of more collegial relationships, and willingness to work together for the benefit of the women, was evident. The topic of triage and the management of pregnant women in the ED was spoken more about, and awareness grew steadily in union with the progression of the research project and

implementation of the various strategies. Furthermore, the acknowledgement of the importance of providing psychological support was foremost in the ED clinicians' minds because of the constant awareness-raising, discussions and education sessions occurring as a result of the project.

> *I know that I have had an attitudinal change in relation to pregnancy loss. I suppose I never really thought of it as a 'real' loss but now I see that it is a really tragic event for some women. I think that the attitude change has occurred with a number of staff in the ED because we talk about it more now* (ED Nurse, 03/12/2009).

> *Being involved in the research has made it foremost in my mind and it does affect my work practice and teaching practices* (ED Doctor, 02/12/2009).

There were also a number of strategies which have already been presented in chapters six and seven that were equally as valuable in assisting with improving the consistency of care women received. They included: the introduction of the triage flow chart for women presenting with early pregnancy bleeding; the advice sheet for women who had experienced early pregnancy bleeding; revised medical policy on management of women with bleeding in early pregnancy and the ordering of afterhours USS; the addition of a number of portable ultrasound machines; and, education sessions conducted to increase knowledge among ED staff about early pregnancy related problems, especially bleeding in early pregnancy and hyperemesis gravidarium.

Evaluation of the changes by the PARG members

As evidenced in the above section, there was continuing feedback and refinement of strategies throughout the planning stages as well as the post-implementation stage. Evaluation of change has mainly been provided verbally by the PARG and staff working in the ED and maternity areas. The pamphlets were well received by women, and the ED staff also gave positive verbal feedback. A Soroptimist International member attended the ceremony for the new gynaecological/obstetric stretcher and also to see the refurbished room and commented in the local newspaper that:

> It [the room] would make a big difference for women going through a traumatic time. Since [the old maternity hospital] closed they (the women) have to come in with all the other emergency departments patients….it was a major achievement for Queensland Health to have set this room aside for the women of North Queensland. (O'Reilly, 2009b)

After the PARG was disbanded, members continued to be committed to evaluation of the various strategies implemented and to making amendments in response to feedback received. This has been demonstrated by excerpts from the final reflections of the PARG that have been shared in chapters six and seven.

Conclusion

The ED environment was identified as inappropriate for women who are experiencing early pregnancy related problems such as bleeding and hyperemesis gravidarium. The establishment of an EPU is supported by the PARG as a good alternative to attending the ED and the PARG strongly advocated for more awareness and resources for psychological support for women experiencing early pregnancy losses. A number of existing polices and processes were also identified as being problematic in the quest to provide woman-centred quality care; these were the '20 week rule' and the 'booking-in' process. Both were challenged in this chapter to make way for clinicians to draw on compassion, clinical reasoning and judgment when applying these polices and processes in everyday practice. The ANDAC service was also reviewed by the PARG and after establishing the service was performing below capacity, instigated conversations with key stakeholders that resulted in a review of the service being conducted. The strategies that were implemented by the PARG included information pamphlets for women about early pregnancy loss and miscarriage, as well as a number of other strategies which raised awareness among clinicians about the devastating psychological effects miscarriage can have on a woman. This concludes the final themed chapter; the following chapter will provide a blanket discussion of the findings, discuss the significance of the research to similar studies and the clinical relevance of the study.

CHAPTER 9: DISCUSSION OF FINDINGS

"I can't believe THAT!" said Alice.
"Can't you?" said the Queen in a pitying tone.
"Try again: draw a long breath, and shut your eyes."
Alice laughed. "There's no use trying," she said,
"one can't believe impossible things."
"I daresay you haven't had much practice," said the Queen.
"When I was your age, I always did it for half-an-hour a day. Why sometimes I believed as many as six impossible things before breakfast!"
(Lewis Carroll, Alice's Adventures in Wonderland)

Introduction

Let me start this chapter by proclaiming, 'change is possible', as demonstrated by this thesis. Although change can be a long and arduous journey to navigate, it is achievable given the right circumstances and a collaborative approach. Participatory action research (PAR) provided the means by which to bring together a group of like-minded individuals who shared a common vision of improving the triage and management of pregnant women when they attended the emergency department (ED) for care. From beginning to end, this participatory process created the environment for this group of clinicians and researcher to develop a better understanding of what the problems were and why they were occurring, to effect change. The research empowered people simply by making them more aware of their own situation, just as it did for Blomqvist, Theander, Mowide and Larsson (2010) in their PAR study with people suffering from chronic renal failure. This chapter will highlight the major findings of the study, and the meaning and importance of the findings. The findings will also be discussed in light of similar studies, along with the clinical relevance of the findings. Finally, its limitations will be acknowledged and suggestions made for further research.

A critical lens has been used to evaluate the study's findings. Critical theory can produce undeniably perilous knowledge (Kincheloe & McLaren, 2005) in its quest to help uncover oppressive or restrictive practices and create a space for potential change,

and ultimately improved patient care (Browne, 2000; Wells, 1995). Attention must be given to contextual, historical, political and social factors which occurred prior to and during the study. In this way, a fuller understanding about the significance and relevance of this study's findings will be achieved.

The healthcare environment is complex and dynamic, and for that reason interactions can be difficult at times, and conflicts may arise (Marcus, Dorn, & McNulty, 2011). Marcus et al. (2011) claim that conflict is necessary in healthcare as it helps to identify problems and then hopefully encourages those involved to work towards a solution. The purpose of undertaking a PAR study and creating 'ideal speech situations' (ISS) (Habermas, 1984) was to allow problems to be discussed in an atmosphere of collegiality and support so that potential solutions could be formulated to help address the problem. Marcus et al. used a simple analogy to demonstrate how different people can have different perspectives about the same experience. The analogy is illustrated in figure 9.1. The person peering into peephole A on the side of the cube sees a triangle and the person peering into peephole B on top of the cube see a circle. They are both viewing the same shape, but from different perspectives.

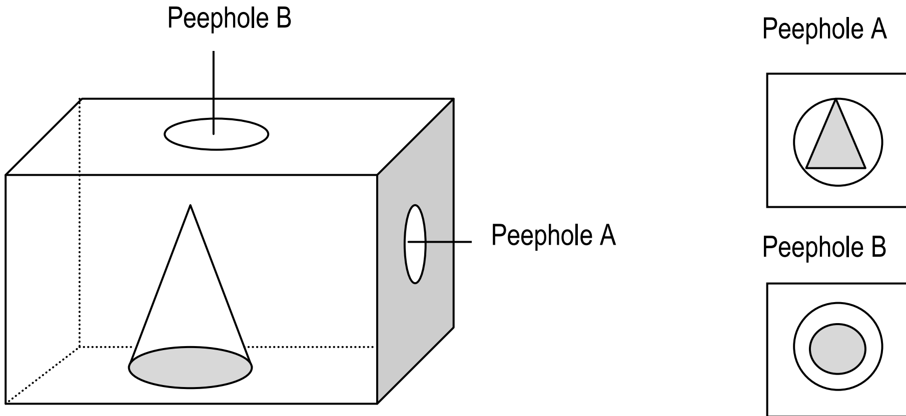
> The person peering into peephole A points to his extensive education and expertise, declaring, "Do you realize how smart I am? If I say it's a triangle, then it's a triangle!" The person peering into peephole B counters, "I don't care how smart you think you are. I control the budget in this institution. If I say it's a circle, it's a circle!" (p. 6)

As mentioned, the purpose of using PAR was to involve clinicians from both departments so that multiple perspectives could be shared and through the process of communicative action an integrated perspective could emerge which would lead to sustainable and useful changes to practice.

Finally, it is important to re-state that the findings in this thesis are not intended to allocate blame to any one professional cohort or individual. The findings represent the problems, considerations, and consequences that people face when working together in a complex organisation, such as a healthcare environment (Marcus, et al., 2011). It was evident throughout this study that healthcare professionals provided the best care they

could, within the borders of a system that was relatively inflexible, understaffed and extremely busy.

Figure 9.1 Look in the cube



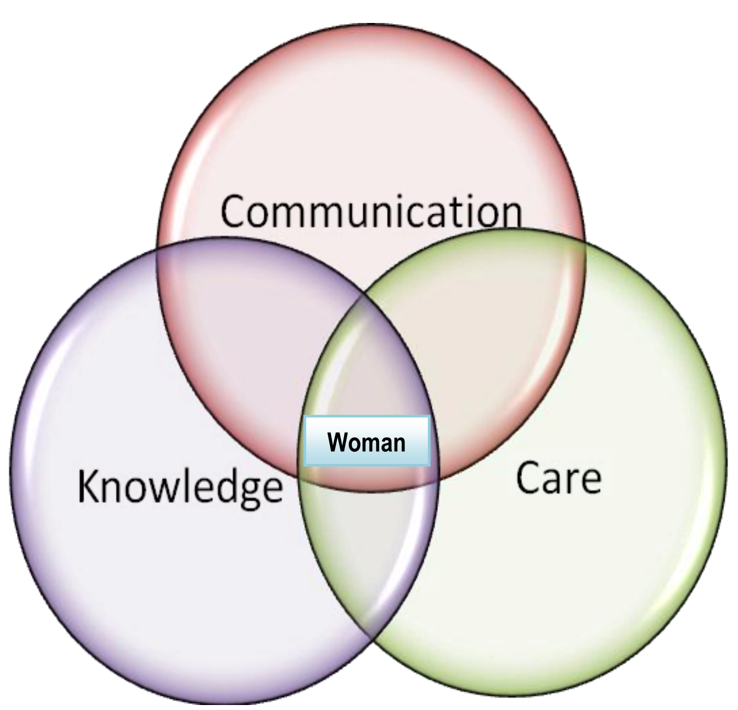
Source: Marcus et al. (2011, p. 6)

Study's major findings

One of the aims of this study was to collect data to assess the nature and the extent of the problem with triaging and management of pregnant women at this hospital's ED and to understand the reasons why this problem arose and persisted. In achieving this aim the participatory action research group (PARG) identified three main findings or thematic concerns from the data collected. Firstly, communication between health professionals and women appeared to lack compassion at times because of the use of dehumanising language and the paucity of information provided to women. Furthermore, interdisciplinary communication was at times distorted and strategic in nature, resulting in misunderstandings, conflicts, frustration, confusion and ultimately poor quality care. Secondly, the knowledge and skill level of health professionals, especially junior doctors and nurses in ED made them less confident when triaging and managing pregnant women. This lack of knowledge and confidence resulted in: the woman receiving inadequate or incorrect information; having to wait longer for care, as junior doctors would avoid or delay selecting these charts; and, the woman receiving scant follow-up care, especially in terms of psychological support. This combination added up to inconsistent and sub-optimal care. Thirdly, physiological care was prioritised over psychological care in the ED, which meant that women who were experiencing early pregnancy loss frequently felt neglected and unimportant. These

three findings were closely interconnected, with changes in one affecting the other two. For example, poor knowledge about early pregnancy related problems impacted on communication between the clinician and the woman, ultimately affecting management decisions and the quality of care. Designing strategies primarily around improving knowledge for both ED staff and pregnant women also helped improve communication and care. The ultimate goal was to have the woman as the central focus when making decisions about care and management, rather than the clinician and or the hospital being the key focus (see Figure 9.2), a philosophy supported by many (Homer, et al., 2008; NSW Department of Health, 2008).

Figure 9.2 The three major findings interconnected to provide woman-centred care



Early pregnancy units (EPUs) or early pregnancy assessment services (EPASs) were supported by the PARG as the best environment for women with early pregnancy problems. The literature from the United Kingdom (UK) and Australia also supports services such as EPASs and EPUs as the ideal environment for women to receive care for early pregnancy related problems (Bigrigg & Read, 1991; Brownlea, et al., 2005; Shillito & Walker, 1997; Women's Hospitals Australasia, 2008). Early pregnancy

services support expert clinicians who exclusively manage early pregnancy related problems, and were therefore seen by the PARG as a more consistent, controllable and predictable setting for women than the ED. The arguments for and against having an EPU at this hospital was discussed in the PARG meetings, along with general considerations, and even though all members agreed it would be the best option for women, there was no consensus on when, where or who would champion this cause. "The capacity to describe what's wrong with a system that has a powerful hold on one's life does not necessarily translate into the capacity to change that system" (Baker Collins, 2005, p. 27). In the early stages of this research, the Director of O&G explicitly advised me that the O&G department wished to maintain control over decisions that were being made about the management of pregnant women in this hospital. Of course, this is understandable as they are the 'gatekeepers' for pregnant women at the hospital and no doubt felt protective over maintaining control and not relinquishing it to the ED. Nevertheless, this was unfortunate because this failure to work collaboratively with the ED to establish an EPU has delayed this service becoming available. Ironically, the O&G department wanted to maintain sole control in order to protect the interests of pregnant women, but ultimately the interests of pregnant women may have been better served if they worked collaboratively with the ED to establish an EPU.

A further reason cited by the PARG O&G doctor for the delay in establishing an early pregnancy service was that there were insufficient O&G doctors at the hospital to allow someone to be released to work in an EPAS. Workload issues were considered a significant barrier to establishing an EPAS, with O&G doctors at this hospital struggling to manage their existing workload. As cited in chapter two, Queensland is the fastest growing state in Australia (Queensland Government, 2008) with birthrates increasing each year. The birthrates between 2006-2009 respectively were: 52,665; 61,249; 63,132; and 66,097 (Australian Bureau of Statistics, 2008, 2010; Office of Economic and Statistical Research, 2010) and this directly affects the workload of clinicians providing Queensland's maternity services. For that reason, workload issues and staff mix requirements are serious considerations when developing plans for an EPAS or EPU. Krause and Graves (1999) and Hughes and Walters (2007) argue that the management of non-urgent bleeding in the first trimester is well within the scope of practice for midwives, not just obstetricians. Therefore, this should also be carefully

considered when planning staff mix requirements of an EPAS as there are more midwives than obstetricians in the current workforce.

Meaning and importance of findings

Firstly, the evidence from this research demonstrated that pregnant women who presented with emergency type presentations, whether pregnancy or non-pregnancy related, were largely triaged and managed appropriately. This is supported by Cameron et al. (2000), the Centre for Maternal and Child Enquiries (CMACE) (2011) and Curtis et al. (2007) who concur that pregnant women generally receive high quality emergency care in the ED, for emergency type conditions. Emergency clinicians are generally well equipped and trained to manage emergency situations and behave accordingly at these intense times. Ashkenazi (as cited in Marcus, et al., 2011) describes three options available to people when faced with a stressful event: fight, flight or freeze, which Ashkenazi has named the triple-F set of options. Marcus et al. refers to this reaction as 'going to the basement' and claims it is a protective involuntary act that all people experience when faced with a stressful situation. Those who are often the fittest, fastest and most willing to fight tend to dominate their environment. Marcus et al. further claim that descent to the basement is an everyday experience that one cannot control. They contend, however, that how quickly one rises from the basement is within most people's control. The emergency clinician faced with having to resuscitate a person will initially descend to the basement, but almost immediately their training, knowledge, skills and experience will raise them out of the basement so that they can deploy a range of well executed actions and procedures to give the person the best chance they have to survive. "It was that small dip to the basement that got those responsible moving quickly, and it was their rapid recovery that allowed them to function successfully when every second counted" (Marcus, et al., 2011, p. 20). For that reason, experienced emergency clinicians are well placed to deal and manage pregnant women in an emergency crisis.

It has been established by this research, and also supported in the literature, that a significant number of women attend the ED with non-urgent, pregnancy related problems because there are limited alternative options available for pregnant women (Brownlea, et al., 2005; Clinical Update 143, 2011; Indig, et al., 2011; Winicoff &

Hinshaw, 2005; Yuk Sang Ting, 2008). The six women who contacted me to share their experiences when they attended the *Many Happy Returns* hospital ED while pregnant were all non-emergency type presentations. Supply and demand factors affecting EDs (as explained in chapter two) have lead to an increase in demand and therefore an increase in ED presentations (Booz Allen Hamilton, 2007). Emergency departments have become busier over the last ten years with the total number of presentations to Australian public EDs increasing from 5.9 million in 2003-04 to 7.7 million in 2010-11 (Australian Institute of Health and Welfare, 2012; Department of Health and Ageing, 2010). The *Many Happy Returns* hospital ED's presentation numbers have grown from approximately 55,000 in 2006-07 (Calleja & Forrest, 2011) to approximately 70,000 presentations in 2011-12 or an average of 200 people daily (Queensland Health, 2012b). These figures, it was estimated by the ED nurses' focus group in this study included an average of ten to 15 pregnant women daily, or approximately 100 pregnant women per week. This is a considerable number, and signals the importance of the research to pregnant women and clinicians involved in caring for women in ED. In addition, three out of the four focus groups conducted in this research confirmed that the most common reasons for pregnant women to present to the ED was bleeding in early pregnancy/miscarriage and hyperemesis, which are both typically triaged as non-urgent and allocated a triage category score of four.

The findings concerning communication, knowledge, and care, were viewed by the PARG as being amenable to change and therefore targeted as areas that could be improved upon to promote a better experience for pregnant women in the ED. Although the PARG believed that the implementation of the strategies outlined in chapters six, seven and eight would be of benefit and help improve the situation, it was acknowledged that there was little the PARG could do in terms of controlling the ED environment *per se*. The very nature of the ED environment makes it unpredictable and sometimes uncontrollable. The reality was that if a person attended the department with a category four or five problem and the department was extremely busy with urgent and severely ill people, then the experience for that person would be worse than if they attended when there were no emergencies demanding a number of the ED clinicians' time. At the very least, the experience would be worse in terms of longer waiting times. Therefore, the PARG agreed that no-one could predict what the ED environment would be like at the exact time a woman presented experiencing an early pregnancy loss. This

would always be an unpredictable factor that would have some influence over the experience for the woman and her family. The PARG therefore discussed whether the ED is the most appropriate place for women to go when they are experiencing early pregnancy related problems: the resounding answer was that it is not.

Changes implemented

The changes implemented as a result of this research reflected each of Habermas' (as cited in Kemmis, 2006) three types of knowledge-cognitive interests. As illustrated in figure 9.3, the main type of change was technical, then to a lesser degree there were practical changes, and finally the smallest type of change was emancipatory. A summary of the changes include:

Technical

1. The revision and updating of existing ED policies to manage pregnant women when they present with bleeding in early pregnancy;
2. The development of a one page triage flowchart for management of pregnant women who present with bleeding in early pregnancy;
3. The development of an advice sheet to be given to pregnant women who present with bleeding in early pregnancy;
4. The development of two pamphlets by the PARG members and the Social Work department, to be given to pregnant women who have had a miscarriage or lost a baby;
5. Development of a Stillbirth and Neonatal Death Society (SANDS) resource folder for the ED;
6. The establishment of contact people from SANDS that were happy to be contacted by the ED if a pregnant woman who was experiencing a miscarriage requested a support person;
7. The delivery of educational sessions to ED nurses and doctors on pregnancy related problems, by the midwifery educator on topics such as: bleeding in early pregnancy and hyperemesis;
8. The instigation of the requirement that all triage nurses complete 'Module 9: Care of Obstetric Patients' of the National Triage Kit and pass the test at the end of the module;

9. The development of an atmosphere that allowed for improved communication between the midwifery/obstetric team and the ED and improved networking opportunities;
10. The provision of clear signage in the ED that requests women to let the triage nurse know if they are pregnant;
11. The purchase of a gynaecology stretcher for the O&G room in the ED;
12. Liaison with SANDS to ensure the delivery of comfortable new arm chairs, new curtains and a cupboard that had been purchased for the O&G room in the ED as well as having the walls painted in the room; and
13. The purchase of a number of portable ultrasound scanners to be used in the ED.

Practical

PARG meetings created an atmosphere for ISS to occur which increased understanding about:

1. The different issues that pregnant women faced when attending the ED;
2. The different perspectives of individual group members and their working environments;
3. The impact of psychological effects that women face from a pregnancy loss;
4. The reasons why knowledge was seen as a problem, especially with junior staff, which lead to the development of strategies to help improve the situation; and
5. Established rituals in the hospital such as the '20 week rule' and 'booking-in' policy; and
6. ANDAC and its purpose, which was a catalyst for a review of ANDAC.

Emancipatory

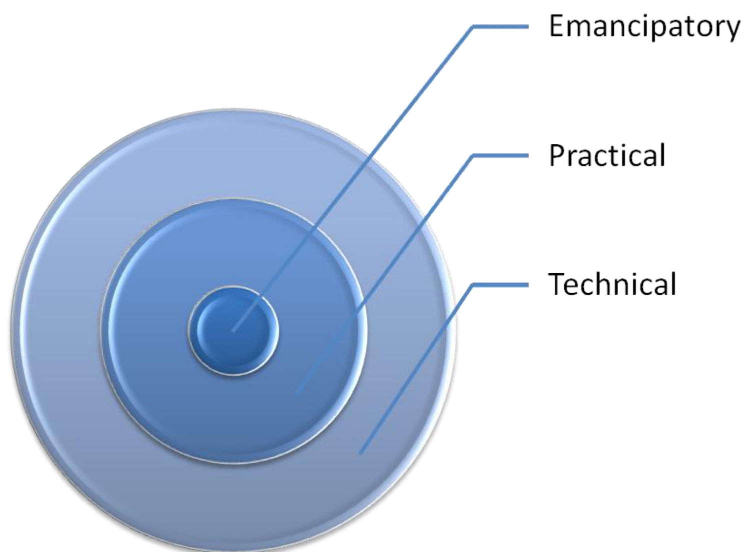
Habermas (as cited in Kemmis, 2006, p. 100) asserts that communicative action "allows us to become conscious of the differences between steering problems and problems of mutual understanding" (p. 97). The PARG:

1. Developed a heightened awareness of the issues about the real causes of unsatisfactory circumstances which then caused them to challenge the status quo;
2. Developed a heightened awareness of the issues that pregnant women face when they present to the ED, which directly affected ED clinicians' attitudes and

behaviours when caring for pregnant women who presented with problems in early pregnancy; and

3. Developed an increased awareness about each other's roles which directly affected the communication and relationships between the multidisciplinary areas.

Figure 9.3 Three types of knowledge-constitutive interests



Significance of similar studies

There have been a number of Australian inquiries and studies about this topic area published between 2008 and 2012. A selection of the more relevant and well-known studies are discussed below.

Hughes and Walters Inquiry (26 October, 2007)

Since the Royal North Shore Hospital (RNSH) ED incident in 2007, there have been a number of inquiries and research projects specifically conducted on the management of women who experience a miscarriage in the ED. The first large inquiry in New South Wales (NSW) following this incident is referred to as the Hughes and Walters Inquiry. Hughes and Walters reviewed the current practices and protocols at the RNSH and other

public NSW EDs pertaining to care of a woman with a threatened miscarriage and made a number of recommendations. As noted in chapter one, a number of the recommendations were considered unhelpful and incorrect by the Director of the RNSH ED (Day, et al., 2007). One point of contention concerned the report describing a ‘spike’ in ED activity at the time of the incident. The Director of the ED disagreed, noting that the ‘activity’ level in the ED is consistently busy. The other contentious point was the suggestion that the ‘triage desk’ be re-named the ‘priority desk’. Triage is a nationally recognised word, used consistently throughout all EDs, and it was considered misguided to suggest a name change. Overall, the inquiry deemed that the care of the woman was consistent with hospital ED protocols and polices, and was therefore appropriate. The woman was triaged to the emergency treatment area inside the department, but because there were no chairs vacant in the treatment area the woman and her partner remained in the waiting room. After her vital signs were taken on arrival there was no further assessment until the woman had miscarried the foetus in the waiting room toilet, one hour and twenty minutes later. The inquiry highlighted the responsibility of the ‘health care system’ and took the view that no individual person was negligent in their duty. The following points and recommendations were reported (Hughes & Walters, 2007):

- The woman and her partner should be provided with privacy and treated with sensitivity and dignity, which is difficult to ensure under the current model of care; a recommendation was made to use ‘consult 6’ room for this purpose.
- Adequate emotional and psychosocial support should be provided to the woman and partner and be included in ED protocols;
- Focus needs to be on good communication skills and front line staff should have communication training;
- The advice sheet about bleeding in early pregnancy should include “let the nurse know immediately if you feel the urge to go to the toilet”;
- Educational material on early pregnancy with a recommendation to seek manufacturers’ approval to include this information, especially concerning miscarriage an psychosocial support services, in home pregnancy kits;
- New system-wide models of care be developed (such as EPUs) as a matter of urgency for women presenting with miscarriage with a review of the maximum waiting time under the Australasian Triage Scale (ATS) categories for threatened miscarriage;

- Change the name ‘waiting room’ to ‘reception area’ and ‘triage desk’ to ‘priority desk’;
- Women presenting with early pregnancy complications should be examined as soon as possible to assess the nature of the complication, the stage it has reached and an appropriate ATS assigned;
- Public education programs about the role of an EDs, especially for non-urgent presentations; and
- EDs develop linkages with early pregnancy advisory services that are willing to provide support for women.

The PARG similarly identified a number of the above recommendations as offering potential improvements to the *Many Happy Returns* hospital ED, and a number of them were subsequently implemented during the course of the research. The PARG did discuss the possibility of a different triage scale or elevating the triage score for women with early pregnancy bleeding, but after much discussion it was unanimously rejected because increasing the triage score could adversely affect other more seriously ill people presenting for help in the ED. The PARG also noted that the ATS was a national clinical tool devised to assist with identifying and treating more seriously ill people first, and therefore any alterations or amendments needed to be referred to the Australasian College of Emergency Medicine, an idea which was supported by the NSW Government in their response to the inquiry into RNSH (NSW Government, 2008). The recommendation in the Hughes and Walters’ report concerning educating the public about EDs possibly prompted the Queensland Government to roll-out a large campaign in February 2009 with that objective. NSW is a neighbouring state to Queensland and much of what was happening in NSW health services was influencing practices and decisions about the management of pregnant women in EDs in Queensland. The new model of care advocated, such as EPUs, is consistent with the suggestions made by the PARG. The report recommended that EPUs should co-locate with EDs and be staffed by appropriately trained nurses and nurse practitioners, and be resourced appropriately with portable ultrasound scanners and access to the antenatal clinic and consultant midwives. Even though the PARG did concur on this point, as referred to earlier, the O&G department wanted to have ownership over an EPU and wanted to wait until staffing levels in their department improved, so that they would be able to allocate an O&G registrar.

Garling Inquiry (27 November 2008)

The Garling Inquiry (Garling, 2008) was commissioned in 2008 by the NSW government to review the state of the acute care services in NSW public hospitals. The impetus for the inquiry were a number of highly published incidents, referred to at the beginning of this thesis, notably the miscarriage at the RNSH ED, and the public disquiet that followed over the safety of the State's public hospitals. The inquiry was extensive and made 139 recommendations for improvements within the system. It is prudent to discuss here the recommendations, and or comments, specific to EDs and as they relate to this research topic.

Early in his report, Garling (2008) made explicit his view that a new culture was needed in which the central concern was the patient's needs and not those of clinicians or administrators. As depicted in figure 9.2, this was also the PARG's objective, and the changes that were implemented were directed at ensuring that woman-centred care was in the foreground. Further to this, Garling emphasised the need for interdisciplinary teamwork to replace individual and independent care. To achieve this he outlined two essential steps:

> The first step is to engage the dedication of clinicians in designing new models of care which are supported and actively championed by clinical leaders in the field, which are evidence-based best practice, and which can be monitored to track the degree of success. The second step is to implement the changes required by the new models of care at the clinical unit level. This requires the active support of clinical leaders to be the champions of the changes. (p. 4)

Those two steps actually represent the essence of a PAR approach. This research study engaged a group of expert multidisciplinary clinicians to investigate, and reach consensus on, a number of new 'models of care' before moving to implement the changes; and then, to monitor and evaluate the effectiveness of the changes in order to see if they were successful in improving the situation. Garling also strongly recommended that the changes be driven by clinicians ('bottom-up') and not by administrators ('top-down'), and this was precisely the purpose of the PARG in this research.

With regard to the findings relating to communication and knowledge, Garling (2008) stressed the need for enhancement in both these areas. Special mention of supervision and support for junior doctors was noted, and also that a multidisciplinary environment should be encouraged for education and training of staff. This study similarly found a need for further education and training, especially for junior nurses and doctors, and one way this was achieved was through a number of education sessions conducted by midwives for the ED staff. There was also consensus that effective communication, both written and verbal, was essential in ensuring high quality patient care. A recommendation was made for a mandatory checklist form, to be completed by the ED doctor, containing the patient's details, provisional diagnosis, any tests or investigations that were completed, and if a consultation had occurred with a specialist. This checklist was to be filed in the patient's chart. Having conducted a chart audit and knowing only too well that the documentation was at times scant and incomplete, as was highlighted in chapter five, I fully support processes which would improve documentation. An electronically based picture archiving and communication system (PACS) was recommended, so that x-rays, ultrasounds and other imaging could be stored, archived and made available to clinicians 24 hours a day. Considering the problems identified in this research in obtaining ultrasound results, this would be a helpful and more efficient process.

The final points of interest noted by Garling (2008) in regard to EDs concerned the overcrowding which he linked to the overall increase in presentations, coupled with the increase in their complexity of presentations; and, he acknowledged that demand would only increase. This is consistent with the evidence cited in chapter two which shows that ED presentations increased substantially over the last decade (Australian Institute of Health and Welfare, 2012); and, as noted in chapter one, Queensland ED attendances are the fastest growing in the country (Queensland Health, 2012b). The Garling Report recommends that more primary care centres be set up within the public hospital system, staffed by medical practitioners, such as general practitioners (GPs). Garling believes that patients who are triaged as urgent, ATS of one, two or three, should be channelled through the ED and seen by emergency specialists, while patients triaged as ATS four and five should be channelled into primary care centres (PCCs) located within the hospital. An example of a PCC could be an EPU/service, and in this respect, the PARG is in agreement with Garling's suggestion. Having additional services that are funded by

the hospital to meet specific patient groups would help reduce the number of presentations to EDs, and allow them to focus on their core mission of treating and managing urgent patient needs. The PARG would further stipulate that the PCCs be staffed with expert clinicians specific to the type of patient group that would be referred to the centre.

Hunter New England Area Health Service research (2011)

The Clinical Excellence Commission (CEC) was enlisted to monitor the implementation of the recommendations from the Hughes and Walters Inquiry in the Hunter New England Area Health Service and provide a report to the NSW Health Department (Warner, Saxton, Fahy, Indig, & Horvat, 2011). Over the course of a number of years the CEC submitted five reports outlining the progress of the implementation of the recommendations. Key findings relevant to this research study, from all five reports, will be briefly discussed. From the 5.3 million dollars contributed by the NSW government, EPASs were established in 13 hospitals in metropolitan and regional NSW. A prevalence study conducted by the CEC in 2008 showed that approximately 2.2% of ED presentations for women were early pregnancy related problems, 28% of women presented to the ED at a weekend, and a further 35% presented outside normal business hours when EPASs were closed. This is important to consider when establishing an EPAS or EPU, because for a service of this type to be most effective it needs to be accessible to women for the maximum amount of time. It was also noted in the prevalence study that documentation in EDs was "generally poor particularly in regard to whether the women (who had lost a pregnancy) had been offered counselling and information on how to access support services" (Warner, et al., 2011, p. 6). This concurs with what I found during the chart audit concerning poor documentation.

In addition to the prevalence study, the CEC researchers sent 180 letters to women identified as attending the department for early pregnancy related problems, requesting the opportunity to interview them regarding their experience. Only 16 women agreed to be interviewed, and the researchers determined this may have been because of the sensitive nature of the topic. This is not dissimilar to my experience, as only six women contacted me to be interviewed and yet there were considerably more who attended the ED during the specified timeframe. A key finding from the interview data echoes the

present study, namely that women prefer to be cared for in a private place where their needs took priority and the ED environment is not an appropriate place to manage early pregnancy concerns unless they are genuine emergencies. Only four women in the CEC study said that they had received written information from the ED staff about miscarriage or loss of a baby, and all four said they found that helpful and comforting. This reinforces the benefit of the PARG having developed pamphlets about miscarriage and loss of a baby for distribution to women in the ED. Women also stated that the negative impact of lengthy waiting times was 'softened' by ED staff checking on them, treating them with respect and kindness and practical considerations such as having access to a toilet and shower facilities. The *Many Happy Returns* hospital has a dedicated O&G room with an adjoining bathroom as illustrated in figures 1.4 and 1.5. There was some concern about the retention of this room with the redevelopment of the ED in 2011, but a number of the PARG members and ED staff strongly advocated that a dedicated O&G room was needed and, despite the extra cost, were successful in having this added to the plans. The women's reference to acts of kindness, respectful interactions, and checks on their well-being as positive aspects of the experience was also noted in this research. It is one reason why special attention was paid to improving communication, knowledge and care by the PARG; as a result, ED staff were better equipped and felt more confident when interacting with women and families who were experiencing a pregnancy loss.

There were six factors that the CEC researchers (Warner, et al., 2011, p. 21; Warner, Saxton, Indig, Fahy, & Horvat, 2012, p. 89) noted as being most relevant to the women's experience of care. They were:

1. Impact of the environment
2. Staff attitudes and behaviours
3. Information provision
4. Quality of interactions
5. Waiting times
6. Access to counselling

Once again, these factors are not dissimilar to those uncovered in this research study. The changes implemented and described in chapters six, seven and eight aimed at helping improve care in a number of these areas. The factors difficult to address were

the ED environment as it was seen as uncontrollable and unpredictable, and the waiting times that resulted from this unpredictable environment. The recommendation from the PARG to establish an EPU or an EPAS is seen as a way to help mitigate these factors. The CEC researchers concluded that EPASs were more appropriate for women with early pregnancy problems who were clinically stable and did not require urgent medical attention.

The CEC researchers (Warner, et al., 2011) found a heightened awareness among ED staff about early pregnancy problems and the psychological effects of pregnancy loss on a woman, findings strongly supported in the present study. Throughout the conduct of the present research the topic of 'triage and management of pregnancy women in ED' was firmly embedded in the minds of ED staff and maternity department staff. This heightened awareness led staff to behave differently since they were giving a great deal more thought and consideration to how they were communicating and caring for women and their partners as well as how they were communicating with each other in the care of women experiencing early pregnancy problems. Clinicians were also motivated to increase their knowledge in this area and welcomed the initiatives that the PARG implemented to assist with this. The change in attitudes and behaviours among staff was seen by participants as one of the most significant outcomes of the research.

Demographic, service delivery and diagnostic characteristics of women (2011)

The authors of this study claim that it "is the first study in Australia to describe the demographic, service delivery and diagnostic characteristics of women who present to the ED for a problem in early pregnancy" (Indig, et al., 2011, p. 260). The purpose of this research was to ensure that the development of early pregnancy services within hospitals were meeting the demands of the group for which they were being established. The study design included statistically analysing of data from 12,061 records from ED presentations in 2008, collected by the NSW Department of Health, and extracting information items such as: age; gender; country of birth; Aboriginality; hospital; arrival date and time; mode of arrival; triage category; provisional diagnosis and discharge information. Findings included (pp. 258-259):

- average age of the woman was 29.3 years;

- problems in early pregnancy accounted for approximately 1.2% of all ED presentations for women in NSW;
- the majority of presentations (72.2%) took place on weekdays and in business hours (64.8%)
- 91.2% of women arrived at hospital in a private car;
- 91% of women were assigned a triage category of three;
- 51.4% of women were assigned the diagnostic category of pregnancy/vaginal bleeding, 25.7% assigned the category of spontaneous abortion and 7.9% assigned the category ectopic pregnancy; and
- 4% of women self-identified as Aboriginal.

Most of these findings were consistent with reports in the existing literature, but a couple of anomalies were noted. First of these is the allocation of triage category three for 91% of women when the literature, and this study, identify the most common category to be an ATS of four. The events that occurred in NSW in 2007 and the extensive media coverage that followed may have impacted on NSW triage nurses 'over-triaging' this cohort of presentations so as to avoid being potentially exposed to another 'public critique' or headlines such as 'birth in toilet in hospital without care'. As the most assigned diagnostic category was bleeding or miscarriage it would support a triage score of four, i.e. semi-urgent, rather than a score of three, indicating urgent. The other anomaly was that hyperemesis was not listed as one of the diagnostic categories with which women presented in early pregnancy. Hyperemesis was ranked among the top four reasons for women presenting to the *Many Happy Returns* hospital ED by three out of the four focus groups conducted for this study, and one of the women interviewed also had hyperemesis in early pregnancy. Furthermore, Yuk Sang Ting (2008) cites hyperemesis gravidarum as being a frequent presentation to the ED.

The results of the study by Indig et al. (2011) correlate with the CEC report findings (Warner, et al., 2011) in finding that the majority of women present with early pregnancy problems on weekdays, between normal business hours. As noted earlier, this information is helpful in determining the most beneficial hours of operation of EPASs. A final comment concerns Aboriginal women being over-represented among women who present to the ED with problems in early pregnancy. The study found that 4% of women identified as Aboriginal, despite Aboriginal women in NSW only

comprising 2% of the population. The data reviewed for this study did not highlight this obviously significant finding, and it would be worthwhile exploring this further, since Indigenous people comprise approximately 3.6% of Queensland's population (Australian Bureau of Statistics, 2007; Labour Market Research Unit, 2008).

Evaluation of an early pregnancy assessment clinic (EPAC) (2012)

An EPAC was established in a Queensland hospital ED in 2005, and a mixed methods study was conducted to evaluate how effective the EPAC has been in improving early pregnancy outcomes for women (Crilly, et al., 2012; Wendt, Crilly, & Beatson, 2012). The study design consisted of semi-structured interviews with clinicians and EPAC women, as well as a six year observational study. The EPAC is a multidisciplinary nurse-led ED-based clinic. The EPAC is funded to operate within the ED, and the inaugural EPAC nurse was a Registered Nurse and Midwife with ED experience. During the conduct of this research, it was mentioned a number of times by both ED nurses and doctors and the PARG members that they would often seek out an ED nurse who was also a midwife when pregnant women presented to the ED with early pregnancy related concerns. This supports the choice of the EPAC clinician to be a Registered Nurse and Midwife with ED experience.

The objectives of establishing the EPAC were to decrease waiting times and provide continuity of care for women with early pregnancy problems. Their study showed that there was a reduction in ED length of stay by 76 minutes, which is consistent with studies conducted by Brownlea et al. (2005) and O'Rourke and Wood (2009). Furthermore, the findings showed that the EPAC facilitated continuity of care for women with early pregnancy related problems. The EPAC operates Monday to Friday between eight o'clock in the morning and four thirty o'clock in the afternoon, which according to Warner et al. (2011), is when most women tend to present for care. Outside these hours women are seen and treated by a doctor in the ED.

This study supports the recommendation by the PARG that an EPU or EPAS would help improve care for pregnant women who present to the ED with early pregnancy related problems.

Clinical relevance of findings

The clinical relevance of the study's findings has been highly significant because they materialised in the production of a number of changes that the PARG implemented and evaluated throughout the course of the study. The changes that occurred as a direct result of this study, and have been outlined in chapters six, seven and eight, were implemented in the ED practice setting to improve the triaging and management of pregnant women who attended the ED. As established by this study's findings and the literature, pregnant women commonly present to the ED and are often triaged as semi-urgent or non-urgent, thereby resulting in longer waiting times in an often noisy, busy and chaotic environment. The implementation of these strategies to help ameliorate this situation was highly relevant to clinicians at this hospital, but most importantly relevant to women attending the ED with early pregnancy problems.

There are factors affecting EDs in Australia which make these findings particularly relevant. In 2009, Western Australia (WA) pioneered the 'four hour rule program' (Geelhoed & de Klerk, 2012; Stokes, 2011) and in 2010 the Australian Government (2010) introduced the 'four hour national access target'. The four hour rule stipulates that 98% of patients presenting to a public hospital ED in Australia are to be either admitted, referred for treatment or discharged within four hours, where it is clinically appropriate to do so. When this was introduced in WA in 2009 legitimate concerns were voiced by many ED clinicians across the country about the implication it may have for the quality of care experienced by patients in the ED. The target was subsequently reduced to 95% of patients being seen within the four hour timeframe. Recent research from WA has shown, however, that there have been fewer deaths and a significant fall in mortality since the introduction of the four hour rule (Geelhoed & de Klerk, 2012). It will be interesting to see further research from other states about the effectiveness of this rule. The relevance of this in relation to the findings of this study concerns the reported benefits in reducing length of stay in the ED with the establishment of an EPU or EPAS. This recommendation by the PARG could help reduce the additional stress and workload on ED clinicians when trying to achieve this four hour target for all people presenting to the ED. Additionally, there is the risk that ED doctors may discharge or 'speed-up' management of a pregnant women solely in order to meet the

four hour target; this may be to the detriment of the woman if she has not received all the required follow up information and care. Behaviours similar to this have been reported as occurring to enable staff to avoid breaching the four hour rule and the consequences that then follow. “The patient who has waited three hours might be found a bed before the patient who had waited five hours because the second patient has already ‘breached’” (Guly & Higginson, 2011, p. 179). Over the coming years, the effects of this ‘rule’ will be more evident, and will require monitoring.

There have been a number of comprehensive documents released since 2008 about the management of early pregnancy loss. In March 2008, Women’s Hospitals Australasia (WHA) (2008) released a document titled the ‘Management of Early Pregnancy Loss’. This document was to be viewed as a supportive clinical guideline for all clinicians caring for women who had experienced an early pregnancy loss. The document recommended that certain language or terms be used for early pregnancy loss, for example the use of the word ‘miscarriage’ rather than ‘abortion’. The suggested terminology was already consistent with that employed at the *Many Happy Returns* hospital. The guideline also concluded that the ideal setting for assessment of women with early pregnancy bleeding was a dedicated EPAS, which concurs with the PARG recommendation. The WHA further recommended that the dedicated EPAS have ultrasound equipment and access to ultrasound evaluation, and be available to women on a “daily basis during the normal working week, and if possible, services available on weekends and after hours” (p. 8). Currently, most EPASs operational in Queensland tend to work for approximately four to five hours per day and only between Monday and Friday. The number of pregnant women presenting to EDs would justify the extended hours. Finally, psychological aspects and follow-up of pregnancy loss were highlighted as important components of care. This was highlighted also by the PARG and a number of pamphlets were developed in collaboration with the social work department at the hospital specifically to help improve this element of care.

In September 2011, the Queensland Government (Queensland Maternity and Neonatal Clinical Guidelines Program, 2011) also released a clinical guideline about early pregnancy loss. The guideline was prepared to promote a multidisciplinary approach and improve consistency in practice. Within the document there are a number of flow charts to use in relation to women who present with suspected early pregnancy loss,

management of ectopic pregnancy, and management of a 'non-viable' pregnancy. The information provided in this document aligns with the information provided in the triage flow chart, the management of bleeding in early pregnancy document and the information contained in the advice sheet and pamphlets developed and implemented in the present study. The Queensland Government document is a comprehensive 33-page guideline, and provides additional information about sonographic anatomy and landmarks. It is an excellent addition to the resources available to clinicians, as it addresses one of the areas of concern identified in this study concerning the difficulty that some ED doctors have with interpreting ultrasound results. The guideline contains a section on psychological support for the parents, as well as formal follow-up counselling options. One of the midwives in the PARG was a member of the working party for the development of this document and in this position was able to contribute knowledge generated from this study and from working with the other PARG members.

Conclusion

The major findings of the study showed that improvements were needed in the areas of communication, knowledge and care. With this end in mind, the PARG discussed and developed a number of strategies that spanned the three types of knowledge-constitutive interests to improve the care that pregnant women received when they attended the ED. During the course of this study there have been a number of inquiries and similar research projects conducted that also make recommendations for how to improve the care for pregnant women when they attend the ED; a significant number of the recommendations made by other studies supported the PARG's agreed upon strategies for change. The clinical relevance of this study was shown to be highly significant because they materialised in the production of a number of changes that improved the triage and management of pregnant women in the ED. The next chapter, which concludes the thesis, discusses the limitations, strengths and overall significance of this research, as well as making suggestions for further research.

CHAPTER 10: RECOMMENDATIONS AND CONCLUSION

She felt a little nervous about this; for it might end, you know, said Alice to herself, in my going out altogether, like a candle. I wonder what I should be like then? And she tried to fancy what the flame of a candle looks like after the candle is blown out, for she could not remember ever having seen such a thing.
(Lewis Carroll, Alice's Adventures in Wonderland)

Introduction

One of the aims of the research was to foster members of the Participatory Action Research Group (PARG) to a point where they would be able to continue the process without me. Alice felt nervous about the 'flame going out, as I too felt anxious about the 'research' ending. The PARG had made a number of significant changes, both tangible and intangible, and it was important that the changes continued to be evaluated and improved upon for the benefit of pregnant women who presented to the Emergency Department (ED). I knew this largely depended on the motivation of individual PARG members to continue to champion this cause without me being present. When conducting interviews with PARG members to ascertain their final reflections, I was pleased to hear the individual members of the group declare that they would be happy to undertake another participatory action research (PAR) project. In addition, they declared they would also continue to keep working on improving the situation for pregnant women in the ED, even though 'my' research had been completed. Knowing that I had assisted the PARG to develop to a point where they could 'go it alone' was, and still is, a very worthwhile achievement.

This research set out to identify if a problem existed with the triage and management of pregnant women in one regional Queensland hospital ED and if so, to determine the exact nature and extent of the problem and the reasons why the problem existed. Anecdotal exemplars were provided by clinicians at this hospital which demonstrated that care was often inconsistent and not woman-centred when pregnant women attended this hospital ED. This study therefore sought to answer the following questions:

1. What is/are the current problem/s with the triage and management of pregnant women in the ED? Why does this problem exist?
2. How can the situation be improved?
3. How effective is the plan that has been developed and actioned in improving the situation for pregnant women who present to the ED?
4. How do I, as the PAR facilitator, support co-researchers and/or participants to find solutions and generate practice knowledge?

This final chapter will be a reflection of the answers to the above research questions and of my experiences of the study, its strengths and limitations, and suggestions for further research.

Research questions answered

Question one: Problems and why they existed

The main problems identified have been allocated specific themed chapters within this thesis. The problem of ineffective communication between the clinician and the woman who had experienced an early pregnancy loss and also between clinicians from the different speciality areas was recognised from: data obtained during the focus groups; women's individual interviews; chart audit; and, through discussions with the PARG. Communication was a problem for several reasons: the ED is often busy and chaotic, making it difficult to promote effective communication, overcrowding is a regular happening, and privacy is difficult to maintain due to the open plan of the department. Another important factor was that collegial communication, where understanding was the objective, did not seem to be valued among the clinicians. It was therefore relatively common for strategic communication to be the preferred communication style between the different speciality areas when they were trying to achieve specific outcomes. Finally, ED clinicians' lack of knowledge, especially junior clinicians, about early pregnancy and related problems negatively influenced their communication with pregnant women.

This lack of knowledge, was also identified as a contributing factor to how pregnant women were triaged and managed in the ED. Obstetric or pregnancy related information

and/or clinical experience was generally minimal and placements were often difficult to source in most medical and nursing education courses in Queensland, and therefore did not provide junior clinicians with enough knowledge and skills to manage these cases in a consistent and confident manner. This lack of confidence would often lead to junior doctors avoiding or delaying seeing these cases in the ED. The busy nature of the ED also contributed to how much support and guidance was available to junior doctors, with the senior clinicians' time being needed for the more urgent and severe cases that were presenting to the ED. During the ED focus groups it was often noted that non-midwife clinicians would often seek out ED nurses who were also midwives to assist with making decisions for women who presented with early pregnancy related problems. This particular cohort of nurses was a very small group; therefore this assistance was frequently unavailable to junior staff. Finally, staff turnover and staff having to relieve in other areas of the hospital was a common phenomena, making ongoing regular education of ED staff a necessity.

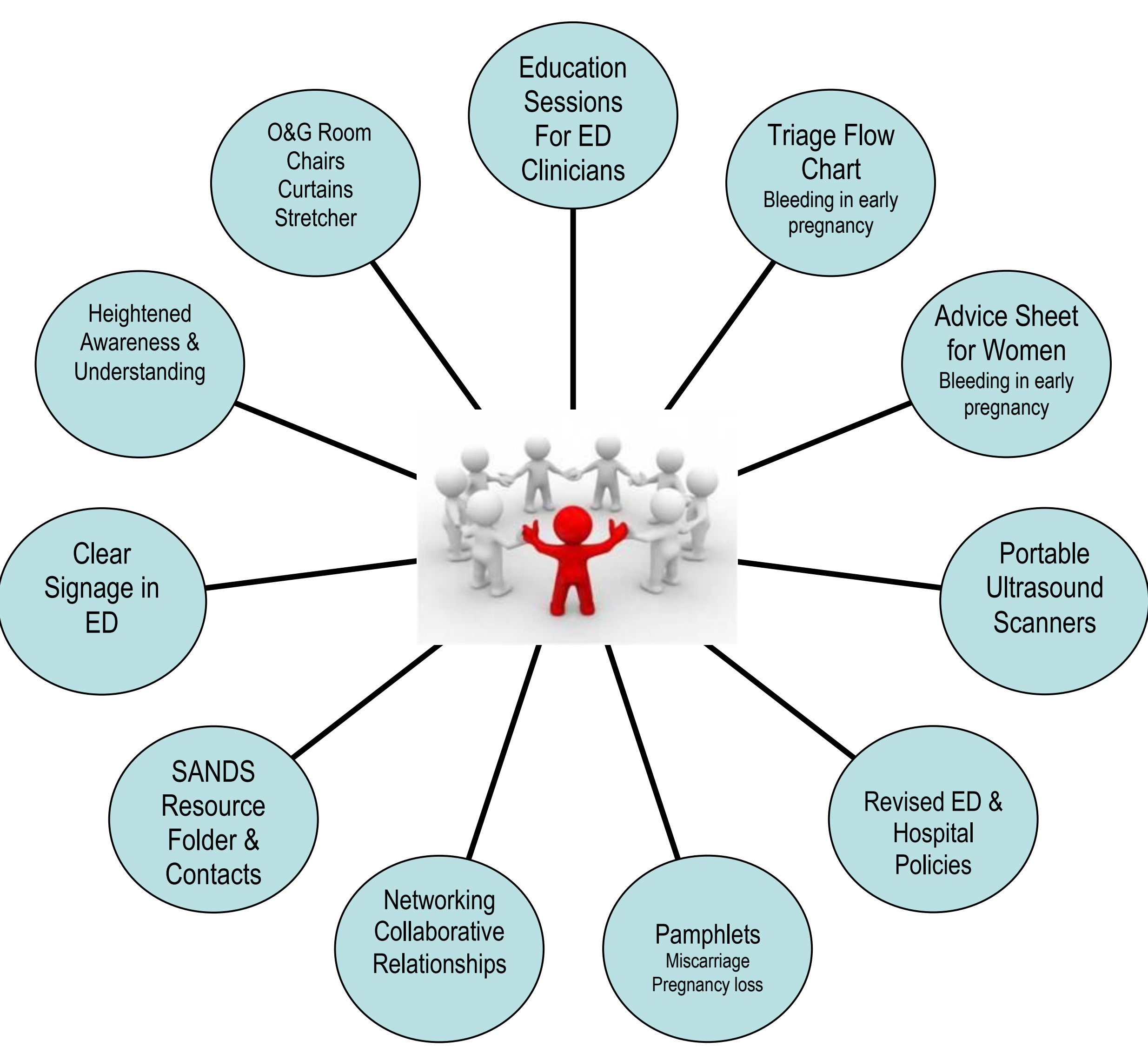
The final problem identified was the lack of psychological care available to women who had experienced an early pregnancy loss in the ED environment. Lack of knowledge exacerbated this problem because ED staff were often uninformed about what to say to a woman who has just lost her baby or who may be in the process of losing her baby. This led to poor psychological care and/or no follow-up care being offered to some women. As the name implies, the ED is fundamentally for emergency cases, of which the majority of miscarriage cases are not. Therefore, the time and private space that these women often required was not available to them. There were also a number of polices and services within the hospital that were operating with a health professional or hospital centred-care focus, rather than a woman-centred care focus. This was occurring as a result of numerous factors, including: historically embedded clinician preferences; ownership demands by the Obstetrics and Gynaecology (O&G) department; and, the long standing culture and beliefs on how services should operate and what services should be offered.

Question two: How did the PARG improve the situation?

The PARG worked together between the years 2007 and 2009 to determine ways that the above problems could be addressed to improve the situation for pregnant women

who attended the ED. The changes that were implemented have been made explicit throughout chapters six, seven and eight and a summary of the changes are illustrated again in Figure 10.1. As demonstrated by the diagram, changes implemented were both tangible and intangible. Dockery (2000, p. 109) describes the participatory approach as one in which "the process is owned and shared by all participants, generates much more than just data; it brings about positive changes amongst individuals and groups as a whole".

Figure 10.1 Summary of changes implemented



Question three: How effective were the implemented changes

Evaluations of the changes were carried out by members of the PARG during 2009. There was a variety of evaluation methods used, including: written questionnaires; oral feedback from ED staff and maternity staff; education sessions with the ED and maternity areas which sought feedback about the changes that had been implemented; and, individual interviews with each of the PARG members. The changes were positively received by ED staff, with many declaring that the changes where helpful and important in improving the care that pregnant women received when they presented to the ED. The members of the PARG are committed to continuing to review and improve upon the changes in response to future feedback and departmental changes.

Question four: How did I as a PAR facilitator support the 'research'?

Unquestionably, the PAR approach was the best methodology to use to answer the research questions and achieve the aims of this study, although it did present some significant challenges. The first challenge is well documented in PAR literature, namely the 'time intensive' nature of PAR associated with its cyclic and continuous design. It can continue for as long as there are people interested in improving current practices. I was aware of this from the literature and I had discussed it with my supervisor before commencing the research. In order to stay true to the methodology and allow sufficient time for the process to happen 'naturally', rather than creating unrealistic expectations for the research and the PARG, I took two periods of leave during the course of the research. This increased the likelihood that the research would be successful and helped achieve sustainable, worthwhile changes.

There were times when I felt torn between devoting my time and energy to the hospital site and the task of writing the thesis. I enjoyed being at the hospital working with other members of the PARG and was aware that collaborating with the group and other clinicians reaffirmed the importance of the research and motivated me continue. I prioritised my time at the hospital because I felt it was important to the success of the research. Unfortunately, however, this meant that most of the thesis was written after the project was completed and that it took longer than originally planned. Facilitating the study has been enjoyable and an invaluable learning experience.

During the final interviews with the members of the PARG, I asked what the facilitating factors of the research were and also about whether I could have done anything differently to make the process better. From the responses below, it appears that I facilitated the process reasonably well.

> *As mentioned I wasn't involved from the start but I can think of nothing that I thought you could have done better or differently* (Obstetric Doctor, 18/11/2009).

> *The email contact was good; the minutes and summaries you gave to us were good and the collaboration was really good* (Midwife, 24/11/2009).

> *I think you did a great job and commend you on doing research and achieving all that you have in the last few years* (ED Doctor, 30/11/2009).

> *I think the project was marvellous* (ED Nurse, 03/12/2009).

> *I can think of nothing. It was good* (Midwife, 03/12/2009).

> *Facilitating factors were the initial meetings you did- I thought these were good and got me interested in the topic. The meetings were good, especially when more people in the group were there. I also thought that you were a facilitating factor and you had realistic expectations for people's time and work commitments* (ED Nurse, 03/12/2009).

The PARG learned from each other as we went along and I also had the support of the supervisory team advising and guiding me about facilitating a PAR project. A PAR project facilitated by Wadsworth and Epstein (as cited in Wadsworth, 2006, p. 328) noted that “no one emerged the same person as they began, and the achievements and limits of the project reflect our individual journeys”. This concurs with my own, and the PARG member’s experience.

Critical theory entails self-critique and reflection and is regarded as an essential part of PAR (Koch & Kralik, 2006). Wadsworth (2006) claims that knowing our own self ensures that the research is well grounded and determines one's facilitation limits.

> Knowledge and acceptance of one's own 'inner diversity' may be a key to knowing and accepting diversity among others. With insight and observation, we are better able to 'know our turf', detect the lay of the land, chart the nature of the territory, and follow the layers and load-bearing seams. We are better able to ground our knowledge of when to do what (and when not to do what), to know what we feel and think and what others feel and think, and to serve as a well-earthed basis from which to take creative risks. (p. 328)

As I reflect on the process I can see where I could have done things differently and better; this is normal when learning a new skill. Below I have listed what I believe to be my weaknesses and strengths as a PAR facilitator and also a journal entry that I recorded towards the beginning of the research.

Weaknesses

- My enthusiasm for the research at times resulted in me talking more than I should in some of the PARG meetings; at these times I was able to be reflexive and adjust my behaviour accordingly to allow the expert members in the group to discuss the issue more while I resumed the role of facilitator;
- My enthusiasm also made me eager to see changes implemented and evaluated; at these times I needed to stop and reflect on the PAR process and what we were trying to achieve and allow the process to unfold without me forcing it to happen; and
- I found it difficult to end the research because the PARG still had changes that they wanted to achieve, but I was required to end the research because of the associated PhD timeline.

Strengths

- My background in emergency nursing and midwifery helped me to establish rapport with each of the PARG members and maintained good communication, ensuring that the group was kept informed each step of the way;
- I encouraged the group to largely determine the meeting times, the direction that group discussions took, and what changes were considered realistic within their

current workloads and the time they had available. This promoted ownership for the PARG members over the research and implemented changes;

- By employing Habermas' theory of communicative action I was able to create an environment where members of the PARG felt safe to express their true thoughts and suggestions, which led to empowerment of group members;
- I was able to provide research skills to assist the PARG to achieve the aims of the study;
- I facilitated networking opportunities between PARG members and clinicians in the different clinical departments as required; and
- I increased my own flexibility and availability to PARG members during the study period.

> *Well, the fourth meeting of the PARG has just finished. I am feeling more confident now with facilitating the meeting, not as nervous as when I first started anyway. I have gotten to know everyone quite well over the last number of months and I am really enjoying working with the group. There was one point today in the meeting where I felt I may have been talking too much...I don't want the group to think that I am trying to 'take over'. I will need to be mindful of this and remember to encourage the 'experts' to direct the discussion while I focus on facilitating and offering guidance and help as needed* (Journal Entry, 23/04/2008).

Finally, I will sum up my experience with reference to a well-known quote from Nelson Mandela (Goodreads, 2012):

> I have walked that long road to freedom. I have tried not to falter; I have made missteps along the way. But I have discovered the secret that after climbing a great hill, one only finds that there are many more hills to climb. I have taken a moment here to rest, to steal a view of the glorious vista that surrounds me, to look back on the distance I have come. But I can only rest for a moment, for with freedom come responsibilities, and I dare not linger, for my long walk is not ended.

Recommendations resulting from this research

This research makes a number of recommendations. These include:

- The continuation of regular educational sessions for ED clinicians on topics such as ‘management of early pregnancy related problems’, to cater for the high turnover of staff and to continually reinforce this information.
- The regular evaluation of the changes implemented, because of this research, so that improvements can be determined based upon feedback.
- The networking and collaborative relationships that were established throughout the research period be prioritised, promoted and actively fostered.
- The production of a short educational video about communicating with women who have lost a baby in early pregnancy, to be shown to new staff during the ED induction period.
- The interim suggestion of rostering a midwife to be on duty in the ED between eight o’clock in the morning and five o’clock in the afternoon to specifically manage pregnant women who present with pregnancy related problems.
- The establishment of an Early Pregnancy Unit (EPU) or Early Pregnancy Assessment Service (EPAS) at the *Many Happy Returns* hospital.

Assessing PAR projects

Waterman, Tillen, Dickson, and de Koning (2001), a team of United Kingdom authors developed a set of 20 questions for assessing the quality of action research projects. They acknowledge that some “action researchers will regard the use of guidance for evaluating action research as the antithesis of the anti-elitist and democratic principles of the process” (p. 43). However, they believe that unless guidance is given, there is a risk that action research will be assessed against criteria used for other methodologies and will be therefore, potentially be misunderstood or dismissed. As a relatively new action researcher, I personally found the questions helpful in drawing the elements of the research together and therefore will provide answers to a selection of the questions in this conclusion chapter.

Is there a clear statement of the aims and objectives of each stage of the research?

This project had five main aims that were clearly expressed in chapter one of the thesis and were aligned with each phase of the project. These were:

1. Collect data to assess the nature and the extent of the problem with triaging and management of pregnant women in a Queensland hospital ED. Furthermore, reasons why this problem arose and persisted were investigated.
2. Collaborate with ED staff and midwifery/obstetric staff at the hospital research site to develop and implement strategies for addressing identified areas of concern.
3. Facilitate/create opportunities whereby the participants involved in the research can empower themselves.
4. Evaluate the effectiveness of the strategies implemented and make further recommendations for refinement if needed.
5. Evaluate my effectiveness as a PAR facilitator.

All of these aims were achieved throughout the conduct of this research and evidence of this is in this thesis.

Were the phases of the project clearly outlined?

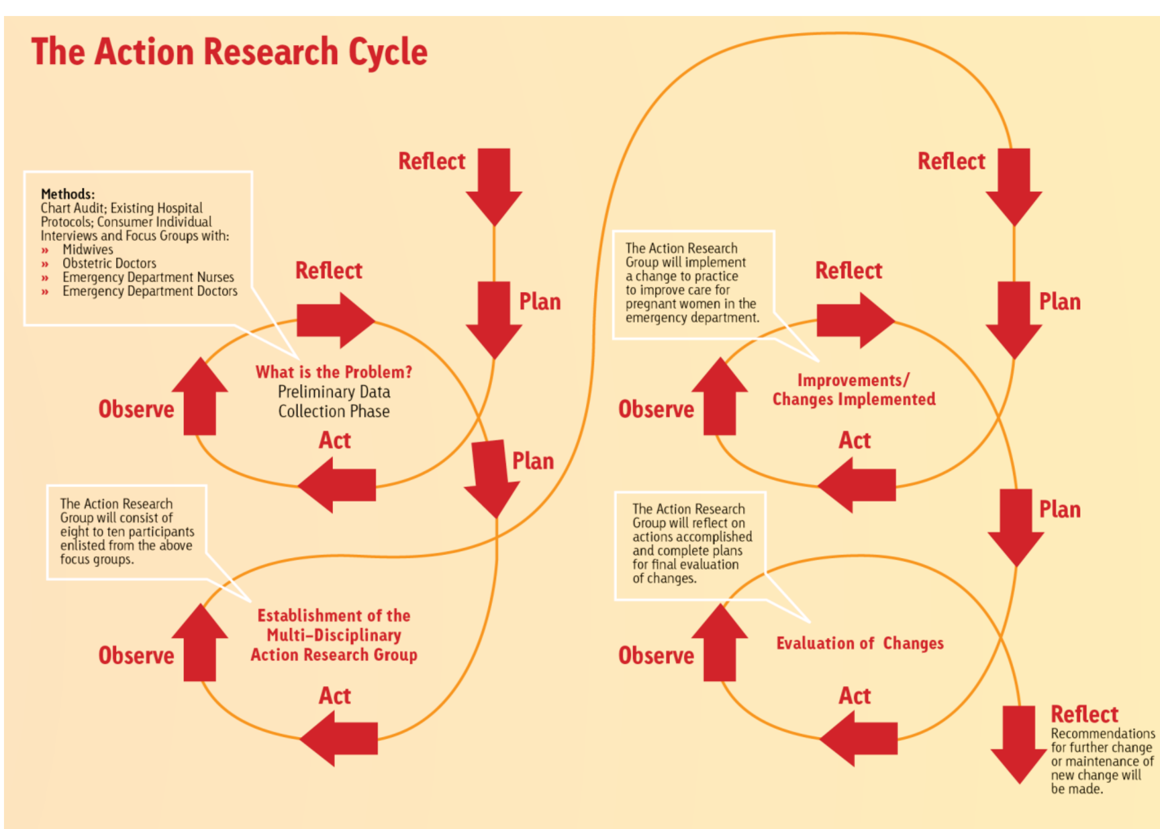
Chapter three described four phases to this project. Phase one established the status quo by undertaking a preliminary data collection that generated a greater understanding of the problems. Phase two was the establishment of the PARG, which was further discussed in chapter four, the conduct of research chapter. The third phase was titled the implementation of 'change to practice' and the final phase was the evaluation of 'change to practice'. The implementation and evaluation of changes were highlighted throughout chapters six, seven and eight. The pictorial used in chapter three to illustrate the four phases can be reviewed in Figure 10.2.

Was the action research relevant to practitioners and/or users?

This research was conceived in 2006 following anecdotal evidence from midwives and nurses involved with the care of pregnant women, who identified that a problem existed with the triaging and management of pregnant women in a Queensland hospital ED. This problem was a real-world problem, identified by clinicians as an area of concern that they wanted to improve upon. It was therefore very relevant to the clinicians in the

ED and maternity areas at *Many Happy Returns* hospital and also to pregnant women in the community, for whom the improved changes were implemented. The PARG members were expert clinicians recruited from both the ED and maternity areas of this hospital. The research was therefore consistent with White's (2005) claim that PAR should solve problems using local resources and participants.

Figure 10.2 Four phases of the research study



Were the participants and stakeholders clearly described and justified?

Stakeholder or gatekeepers involvement was viewed as crucial to the success of this project and as such was commenced in the pre-research phase of project. Chapter four clearly outlined the list of people at the hospital contacted in order to gain support and access to the hospital site. These were:

- Executive Director of Nursing
- Director of the ED
- Director of the Women's and Children's Institute
- Director of Obstetrics and Gynaecology
- CNC – ED

- Nurse Unit Manager (NUM) – ED
- Midwifery Unit Manager – Birth suite
- Midwifery Unit Manager – Maternity Ward
- CNC – Midwife Educator
- Nurse Manager – Nursing Research

As justified in chapter four, involvement of gatekeepers was vital to ensure a collaborative and open approach was demonstrated and that clinicians knew I was there to work *with* them. At various stages throughout the research, gatekeeper involvement was deemed essential, especially prior to the implementation of each change.

Was consideration given to the local context while implementing change?

There were a number of significant political, social and cultural changes occurring in the town and at the hospital throughout the research period, and the PARG and I made every effort to ensure that consideration was given to these events when implementing changes associated with the research. The political, social and cultural environment at the time of the research was discussed in chapter one to demonstrate that this was a time of intense scrutiny by the media about the effectiveness of the ED and, by association, the staff working there. The ED was also extremely busy, creating overcrowding and access block issues. These factors needed to be considered, because they placed ED clinicians under considerable stress and introducing change needed to be collaborative, collegial and perceived as potentially improving the situation.

Access block continues to be a problem for EDs in Queensland and nationally. In chapter two I wrote that the domino effect of access block is increased ED waiting times, poor quality care for people attending the ED, and a feeling of dissatisfaction among ED staff who are trying to do their best in a system that appears not to listen to them or heed their advice. PAR gave this group of clinicians and pregnant women a voice. I was able to listen to them and show that I trusted what they said as being true and accurate.

Was the relationship between researcher and participants adequately considered?

In the first meeting of the PARG, which was described in chapter four, the extent and the level of participation was discussed and agreed upon by the members of the group. It was made clear by me that the research was a collaborative process and that I would

be facilitating the process, and not controlling it. As previously mentioned in chapter one, my role included that of motivator, organiser, educator, presenter, helper and friend as needed. The PARG were encouraged to critically examine their potential biases, roles and how they might influence the research at each phase of the study. This was accomplished by being reflexive practitioners.

Was the project managed appropriately?

I learnt a lot from conducting and managing this project. I was fortunate to have excellent supervisors who mentored me to ensure that the project was being managed appropriately. Key persons were approached and involved from the beginning to ensure the project had their support and the local context was considered at all times during the implementation of changes. The changes that were implemented were all derived from the PARG members after thoughtful discussion about the problems and associated issues and the changes were all feasible, realistic and within the skill set of the PARG members' expertise and ability. The changes that were implemented have been clearly articulated throughout this thesis and the methods used to evaluate them have also been clearly described. During the final interviews, this comment was made about my role as facilitator of the research.

> *I felt that you created an environment in the group meetings where my contributions were valued and I could say what I wanted* (ED Doctor, 02/12/2009).

These responses highlight that members of the PARG were provided with opportunities whereby they felt empowered to bring about change for themselves and others. The group not only developed a greater understanding of the issues, but also implemented changes to improve their situation.

Was the length and timetable of the project realistic?

I developed a Gantt chart at the beginning of the research outlining the anticipated timeline for the research and when certain milestones should be achieved. This timeline was revised on a number of occasions to accommodate the work and personal requirements of the PARG as well as my own. Therefore, the timeline developed when the research was first proposed was not realistic and required repeated adjustment, a

flexibility which is accepted as integral to a successful PAR study and which ensured that the aims were achieved.

Were data collected in a way that addressed the research issue?

In chapters three and four, an array of different data collection methods were documented; this delivered a greater understanding of the phenomena. In the reconnaissance phase of the research a combination of data collection methods was employed, including: focus groups; interviews with women who had attended the ED while pregnant; a retrospective chart audit of pregnant women presenting to the ED in the month of August 2007; and, a review of relevant policy documents and protocols. Each of these methods and why they were chosen was clearly explained in chapter four of the thesis. The combination of data collection methods drew on a number of different sources which directly helped to address the research questions.

Was the study design flexible and responsive?

The study design was broadly articulated into four main phases. Within each of these phases there was ample room for flexibility and responsiveness to the requirements of the PAR process. This was demonstrated by the extension of the timeline and my ability to remain flexible to the PARG's requirement, taking leave from full-time employment to concentrate solely on the research. This allowed time to accommodate the PARG members' requirements, who were all very busy hospital clinicians working shift work. The findings of the research were used to generate plans and ideas for change and the study design allowed for changes to these plans to be made and ideas to be refined so as to be consistent with the local context. One example of the study's responsiveness was demonstrated in the first meeting of the PARG when it was suggested that I speak with the coordinator of the Stillbirth and Neonatal Death Society (SANDS) to gather more data about early pregnancy loss. There was general consensus from the group for this to occur: I therefore contacted and interviewed the local coordinator of SANDS and took this data back to the PARG for further discussion.

Are there clear statements of the findings and outcomes of each phase of the study?

For the purpose of writing this thesis, the findings have been recorded in a linear fashion. However, the findings were discussed and refined by the PARG throughout the various cycles or phases of this study. The findings of this research have been made

explicit in chapters five, six, seven and eight of this thesis with the accommodating evidence to support the findings.

Has the author articulated the criteria upon which their work is to be read/judged?

This research stated three outcomes in chapter one. They were:

1. A better understanding of the nature of the problem so that appropriate strategies can be implemented to improve the management of pregnant women through ED.
2. Improved collaboration between clinicians in the ED, clinicians in the maternity area, and the researcher at the university, to develop strategies and hence improve service delivery to pregnant women.
3. Through the process of critical reflection and clinical supervision the PAR facilitator will create an environment whereby the participants are empowered to bring about change for the improvement of service delivery to pregnant women who attend the ED.

This thesis is evidence of these outcomes being achieved. Additionally, some of the final comments made by members of the PARG, some of which have already been shared throughout the thesis, will be presented below to support the achievement of these outcomes.

> *I have developed good relationships and will continue to work with the ED to improve care for pregnant women* (Midwife, 24/11/2009).

> *I was so please to see research being done in nursing and in the department. I was really happy to be involved and we did some really good things. The protocol got revised, the advice sheet for women and the gynae bed. I think we did really well* (ED Doctor, 30/11/2009).

> *Yes I will keep working on the project. It is now foremost in my mind and I have now developed relationships that I will continue growing* (ED Doctor, 02/12/2009).

> *Yes- definitely. Happy to be involved [in further PAR projects]* (Obstetric Doctor, 18/11/2009).

Yes. I was pleased with the changes we made, but realise there are still a lot of things we can do (ED Nurse, 30,11/2009).

Yes-always [will continue to try and improve the situation for pregnant women]. I would be happy to be involved in another project that you were doing (ED Nurse, 03/12/2009).

Because of the research I now collaborate more collegially/informally with [Director of Obstetrics and Gynaecology], [Obstetric Consultant] and other staff about issues with pregnant women in the department, which wasn't happening prior to the research project (ED Doctor, 02/12/2009).

As a CN I am suppose to do research anyway. I still don't feel like I know enough about research. I have brought a book about research which I am going to read. There are still changes that I would like to make. I will continue working with [Midwife from the group]. I would like to get more people involved so that the work can be spread around. I'll work on doing this (ED Nurse, 30/11/2009).

I am also interested in improving interdepartmental relationships and this was a good process to do that. I thought that action research was great (ED Doctor, 02/12/2009).

Always fascinating to get different points of view. It helps to make sense of things and you get the bigger picture. I learnt quite a bit about the other departments (ED Nurse, 30/11/2009).

Being in the group helped build bridges with the midwives working in ED. I found listening to the different perspectives or experiences from the midwives and obstetrician was facilitating and gave me a better understanding of what it is like for them. It was good for networking both with ED staff and Midwifery staff (ED Nurse, 24/11/2009).

Study's limitations

There are several limitations of this study. Firstly, not having a GP liaison person as a member of the PARG; as mentioned in chapter four, contact was initiated with the GP network with the intent of recruiting someone to the PARG, but unfortunately there was no response. It is not clear to what extent this may have limited the study, if at all, but a GP representative would have been preferred since women are often referred by GPs to the ED with early pregnancy related problems. A second limitation was, the small number of women interviewed: six were interviewed in order to understand their experiences when they attended the ED while pregnant. A larger number would have generated more data from a greater variety of perspectives but, as found in the study by Warner et al. (2012), sensitive topics tend to be associated with small numbers of participants. Thirdly, it may have assisted the PARG if data had been recorded relating to the demographic, service delivery and diagnostic characteristics of women who had attended over a period of 12 months prior to the formation of the PARG. This information would have assisted with decisions about the best service delivery model of care for women attending the *Many Happy Return* hospital ED. Finally, an inhibiting factor acknowledged by most members of the PARG, was their own role and location changes in the hospital, which made it difficult for them to 'be available' as much as they would have liked. It is not unusual in a hospital, especially among clinical leaders, to be asked to 'act' in other positions within the hospital or within another hospital in the health service district. However, although this was a limitation, it did not prevent the research from progressing, as the group found ways to overcome the problem, such as using email to comment on discussion points if they were unable to attend a meeting.

Study's strengths

The study has exhibited many strengths. Firstly, it allowed a diverse group of clinical experts to come together with the shared aim of improving care. Having relevant clinicians who were experts in their field had a significant impact on the credibility of the data obtained, the analysis and interpretation of the data and the subsequent outcomes of the research. The cyclic process of planning, acting, observing and reflecting, which is the hallmark of AR, added rigour to the process as a continual

process of critical reflection and evaluation occurred by experts on the topic area. The focus on implementation of change was highly prized by clinicians and added to the strength and significance of the study for the expert clinicians involved in the PARG. The implementation of a number of strategies to improve practice was a definite strength of the study and highly significant to the improvement of care for pregnant women. Further items that made this research significant include: generating a greater understanding of the importance of psychological care for pregnant women who miscarry in the ED; taking a 'hidden' topic (death of a baby) and making it more 'visible' so that education and support could be improved; furnishing myself and other members of the PARG with a wider range of research skills and increased understanding; and, finally, since the PARG members have the skills to continue the cyclic process on their own the research, collaboration, implementation of changes and evaluation will continue. A summary of the research outcomes are provided in Appendix S.

Post-research incidents

As previously established, miscarriage is a common presentation to the ED. Each year in Australia, approximately 147,000 couples experience a miscarriage (SANDS Australia, 2012). In other documents this figure is cited as 55,000 couples experiencing early pregnancy loss each year in Australia (Queensland Maternity and Neonatal Clinical Guidelines Program, 2011): in either case, the number is large. The triage and management of pregnant women in EDs thus continues to be a national problem. Recent experiences in Australia support this conclusion and two examples from 2011 are given below.

The first example, which occurred in February 2011, describes a 41 year old woman who 'lost her baby' in the Frankston Hospital ED waiting room toilet, after waiting a number of hours to be seen. The woman who was 10 to 12 weeks pregnant at the time presented to the triage desk with a letter from her general practitioner which stated she was having a threatened miscarriage. The woman was triaged, assigned a seat in the ED waiting room and a number of hours later miscarried her baby in the ED waiting room toilet. Following this event, the Chief Executive Officer for Peninsula Health is quoted

as saying "other cases of inappropriate care at the hospital have also come to light...and these are being reviewed" (ABC Melbourne, 2011). Additionally, the Victorian Health Minister, David Davis, "described the incident as appalling and unacceptable" and described the community as being in shock about the incident (ABC Melbourne, 2011). Some of the headlines for this news article were damning of the hospital and those involved. Three examples of the headlines used by various media sources are '*Hospital staff resign over toilet miscarriage*', '*Hospital shame as [sic] miscarries baby in toilet*' and '*A women's hospital miscarriage nightmare*'. Two Registered Nurses from the ED resigned over this incident.

The second example, which occurred only two months later, in April 2011, involved a woman who attended a public ED in Victoria when she was 11 weeks pregnant, and was told she had miscarried her baby. The media reported that she spent two days grieving for the loss of her baby to then find out that the ultrasound at the hospital showed her baby was still alive. "[Name withheld] was relieved, but extremely worried – the emergency doctor had performed a painful internal scraping procedure. Now she is terrified it damaged her baby" (Seven News Queensland, 2011). A spokesperson from the hospital in question was quoted by the media as saying "The (doctor) should not have told you it was a miscarriage until ultrasound confirmation. She is a junior doctor and she will not make this mistake again" (Seven News Queensland, 2011). This experience has left this woman declaring that she would be too scared to seek any form of medical assistance from a public hospital in the future.

These two examples are sad and unfortunate experiences for the women and their families and also for the staff involved. Each time the media report such incidents, they depict them as rare occurrences, and the hospital administrators or politicians behave as if they are surprised and outraged that such events are occurring in our hospital EDs. The truth, however, is that these are *not* rare events and they will continue to happen unless ED resource problems are addressed or an alternative appropriate service is made available for women who are experiencing non-urgent, early pregnancy related problems. The doctors and nurses working in EDs are striving to give the best care they can in a busy health care environment. It is frustrating for ED clinicians to know that women who are presenting with non-urgent pregnancy related problems are not receiving the type of care they require simply because the ED environment does not

have the staff, space or expertise which these women ideally require. These events confirm the need for more research into improving the management of pregnant women who present to an ED in Australia. The present study has recommended the establishment of EPUs or EPASs as the favoured solution for providing more consistent and better care options for pregnant women with non-urgent, early pregnancy related problems. This recommendation is echoed in other hospital facilities, in Queensland and nationally, as the preferred option. In November 2011, for example, the Independent Member of Parliament for Burnett in Queensland released a media report advocating the establishment of a dedicated EPAS at the regional district hospital, in support of a recommendation from hospital clinicians. The public hospital in the Burnett district provides a service for a population of approximately 130,000 and has an annual birth rate of approximately 1,200 (Messenger, 2011). Both of these figures are considerable lower than the *Many Happy Returns* hospital and its associated town. This research provides sufficient evidence to support the immediate establishment of an EPAS or an EPU at the *Many Happy Returns* hospital, and key stakeholders are already using the findings to expedite this process.

Suggestions for further research

A study of the demographic, service delivery and diagnostic characteristics of women who present to the *Many Happy Returns* hospital ED with pregnancy related problems over the course of a year would be useful in ensuring that appropriate service delivery models are in place to meet the needs of these women. Additionally, further research needs to be undertaken to determine what affects the opening of the new ED, has had on the triage and management of pregnant women. An ethnographic case study design could formally evaluate the changes implemented by the PARG, to determine if they continue to be effective and adequately utilised. Furthermore, the PARG has recommended that an EPU or EPAS be established at this hospital site and formal evaluation of the effectiveness of such a model of care should be undertaken within 6 to 12 months of its inception. Other hospitals that have established EPU or EPAS should continue to evaluate their effectiveness as suitable models of care for pregnant women presenting to EDs with early pregnancy related problems.

Interestingly, the focus groups and the PARG did not discuss any issues concerning pregnant women who may have attended the ED with either mental health conditions or substance abuse problems. However, in the literature review chapter this was identified as a concern (Burns, et al., 2006; Dowdell, et al., 2007; Miles, et al., 2010). The fact that it was not discussed does raise some concerns and questions, as these cohorts of women are often marginalised and 'hidden' from mainstream discussion. When looking at potential future research, this would be a topic which I believe should be explored further.

Finally, a study examining the everyday working relationships between radiology, pathology and the ED would be beneficial, since the efficiency of the ED largely depends on the efficiency and productivity of these allied departments. This would be especially significant because of the four hour target 'rule'.

Final reflections

There is a certain sense of achievement in knowing that one's research has helped bring about change aimed at improving the healthcare for others and this project has given me this sense of achievement. The final reflections of the PARG members also felt this same sense of achievement. The changes implemented were not major infrastructure changes or expensive in terms of financial cost, but they were major in terms of the emancipatory effects that the PARG underwent in their quest for wanting to identify and better understand the problems.

I received an unexpected gift from my mother when I was writing my PhD. The gift was a poem that consisted of three verses. The first verse was:

Look above and beyond the circumstances
No matter how hard that may be
There is probably a whole different picture
Than the one you can now see.

This verse resonated with me in regards to this study. In 2007, when the research began, I had a general picture of the perceived problem from anecdotal conversations with clinicians from the hospital research site, but I knew that in order to fully understand the exact nature of the problem the research would need to look above and beyond the current situation; a critical perspective permitted me to fully appreciate the problem and what was sustaining it. This was challenging at times and I knew that I would need to work collaboratively with expert clinicians directly affected by the problem in order to achieve the outcomes I desired for the research; a PAR approach made this possible. As the research progressed, the members of the PARG developed a greater understanding of what challenges each of them faced and how and why the different speciality areas operated as they did. This understanding gradually yielded a new picture of the situation, and I believe it promoted collegiality and collaboration, in place of a defensive and blaming culture among the two specialty areas. This, I believe, is one of the most valuable achievements of the research.

Final thought

I have told the story, albeit I will continue to tell it in other ways through journal publications and oral presentations, but for now I have told *this* story and I am pleased to say that I can now put it to rest. It is only fitting to end with a quote from Lewis Carroll. I hope that it does not reflect the story that I have told throughout my thesis. Thank you for reading.

"It's a miserable story!" said Bruno. "It begins miserably, and it ends miserablier.
I think I shall cry. Sylvie, please lend me your handkerchief."
"I haven't got it with me," Sylvie whispered.
"Then I won't cry," said Bruno manfully.
(Lewis Carroll, Sylvie and Bruno Concluded)

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Appendix A: Summary of Habermas' life and achievements

Background
▪ Born in Dusseldorf on 18 June, 1929 ▪ Brought up by middle class German family ▪ Own political views took shape in 1945 when he was about 16 years old ▪ Towards the end of the war he joined the Hitler Youth Movement, as did all young German boys at the time. ▪ After the war his eyes were opened to the horrifying reality of Auschwitz.
Career
▪ As a young man he studied philosophy in Gottingen, Zurich, and Bonn ▪ 1949-1953 he immersed himself in the work of Martin Heidegger. He soon became disillusioned with him though because he refused to acknowledge the Nazis actions and his part in it as a member of the Nazi party. ▪ The new government was established in 1949 (Federal Republic of Germany) lead by Konrad Adenauer. He was also disappointed in the new government for refusing to acknowledge the past. ▪ In 1954 obtained a doctorate- his dissertation was on the German idealist Friedrich Schelling. ▪ Started to read and follow work by Herbert Marcuse and Karl Marx ▪ In about 1956 he became a research assistant to Theodor Adorno at the Institute for Social Research in Frankfurt. ▪ He enjoyed the teachings of Adorno and Max Horkheimer which allowed him to critically view his own German traditions. ▪ During this period he became more radical and sympathetic to Marx. Horkheimer (who was the director of the institute) did not agree with Habermas' views and orchestrated his departure from the institute by way of not approving this Habilitation. ▪ In 1958 Habermas left Frankfurt for the University of Marburg where he finished his Habilitation. He received his Habilitation in 1961. ▪ He then became Professor of Philosophy at Heidelberg. ▪ 1964 he became Professor of Philosophy & Sociology at University of Frankfurt.

- 1971-1983 he was appointed the Director of The Max Planck Institute in Starnberg.
- 1983 he returned to the University of Frankfurt, Institute of Social Research to teach Philosophy.
- 1989 – the Berlin wall fell and in the aftermath Habermas witnessed firsthand the unification of Germany. He was highly critical of the way the unification process was conducted.
- In the early 1990's he became increasingly interested in the work of the American political philosopher John Rawls, in his conception of liberalism and in the tradition of American constitutional democracy.
- Retired since 1994. Lives and writes in Starnberg and teaches part-time in the United States.
- Recipient of at least 12 highly acclaimed awards over his career.
- Professor Emeritus at Johann Wolfgang Goethe University in Frankfurt.

Source: Finlayson (2005).

Appendix B: Recruitment flyer for focus groups

Pregnant Women who Present to the ED

For more information please contact:

Nikki Harvey
PhD Candidate
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James Cook University
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I would like to work collaboratively with midwives, obstetricians, emergency nurses and doctors to improve the triage and management of pregnant women in the emergency department. Initially, I would like to conduct a number of focus groups with midwives, obstetricians/obstetric doctors, emergency nurses, and emergency doctors, to discuss the topic of triaging and management of pregnant women in the emergency department. If you would like to volunteer to participate in a focus group, which will take about 60 minutes of your time, please contact me (details to the left). I look forward to working with you soon, in our shared aim to improve care for pregnant women in the emergency department.

Regards, Nikki

This study has been granted ethical approval from Many Happy Returns Hospital Ethics Committee and JCU Ethics Committee.

School of Nursing, Midwifery & Nutrition

Appendix C: Recruitment email for focus groups

I would like to invite you to attend a focus group meeting to discuss the triaging and management of pregnant women in the emergency department. This is one of four focus groups that I will be conducting over the next month to collect preliminary data about the topic area. If you feel that you could contribute information about this area I would greatly appreciated your attendance at the meeting. This is the first phase in a larger research study. This phase is to identify if a problem exists and if so to what extent. I hope to see you at the focus group, as the information gathered in this phase is very important in establishing the significance of the problem.

Details of focus group meeting

Date: 13 September 2007
Day: Thursday
Time: 1.30pm – 2.30pm
Venue: [venue removed]

I have left some information sheets about the focus group with [name removed], CNC Maternity Unit. Alternatively, you can contact me and I will forward you an information sheet.

Could you please pass this email onto any midwife that you feel would be interested in contributing to the study.

Warm Regards, Nikki

Appendix D: Information sheet for focus groups

Many Happy Returns **Hospital Health Service District**

PARTICIPANT INFORMATION SHEET
FOR FOCUS GROUPS

STUDY NAME: "THE TRIAGE AND MANAGEMENT OF PREGNANT WOMEN WHO PRESENT TO THE EMERGENCY DEPARTMENT"

PRINCIPLE INVESTIGATOR: NICHOLE (NIKKI) HARVEY

Dear Focus Group Participant,

Thank you for requesting information about participation in the focus groups.

I would like to invite you to take part in a focus group along with other [emergency department nurses] to discuss the topic of 'triaging and management of pregnant women in the emergency department'.

A focus group is a form of qualitative research in which a group of people can discuss a common problem or issue. I will act as the facilitator for the session and will pose some general questions to initiate discussion about the topic, such as "please tell me what you believe currently happens when pregnant women present to the emergency department"; and "do you believe that the management of pregnant women in the emergency department can be improved upon".

It is anticipated that the focus group will take one to two hours, although this may vary depending on the amount of discussion generated. The venue for the focus group will be at The Townsville Hospital and the room location will be given to all participants one week prior to the meeting date. I will, to the best of my ability, arrange a time that is suitable to all participants who volunteer to be involved in the focus group.

Throughout the focus group I will take handwritten notes of the key points discussed and a tape recording of the focus group will be taken, but not transcribed. The audio record is for the purpose of checking that all points are recorded accurately and no important points are left out. At the end of the focus group all members will be asked to choose the ten most critical issues discussed and rank them in order of priority. This is a useful strategy to ensure that I don't misinterpret what the group believes were the most critical points discussed throughout the session.

Your privacy and safety are of the utmost importance to me, however, the nature of group discussions does mean that your confidentiality cannot be guaranteed, because of the others present hearing what you say. This is not a major issue, but something of which you need to be aware. Ground rules concerning confidentiality and anonymity will be established at the commencement of the discussion to ensure that information discussed by individual participants is respected and remains within the confines of the group. Your decision to participate is entirely voluntary and you are free to leave the group meeting during proceedings, however, it will be difficult to extract any comments that you may have made up to that point.

Your identity will be protected in all documentation related to this project, including articles for publication, conference presentations and a PhD thesis. At all times your safety, privacy, confidentiality and anonymity will be respected and maintained. Your presence and participation at the focus group will be taken as implied consent to be involved in the study. Involvement in this study is voluntary and there is no monetary payment. The information gathered will contribute to a larger study which aims to improve the department's management.

If you have any questions about the research please contact Nikki Harvey on (07) 4781 5308 or Nikki.Harvey@jcu.edu.au or Nikki's PhD Supervisor, Professor Colin Holmes, on (07) 4781 5329 or Colin.Holmes1@jcu.edu.au

Thank you for taking the time to read this information sheet and I look forward to working collaboratively with you to help improve the care of pregnant women in the community.

Yours sincerely

Nikki Harvey
PhD Candidate
School of Nursing, Midwifery & Nutrition
James Cook University

This study has been reviewed and approved by the *Many Happy Returns* Hospital Health Service District Human Research Ethics Committee [Protocol Number 18/07] and James Cook University Human Research Ethics Committee [H2627]. Should you wish to discuss the study with someone not directly involved, particularly in relation to matters concerning policies, information about the conduct of the study or your rights as a participant; or should you wish to make an independent complaint you can contact the Chairperson, Many Happy Returns Hospital Health Service District Human Research Ethics Committee via email at Manyhappyreturns-Ethics-Committee@health.qld.gov.au or telephone (07) 4444 0000.

Appendix E: Recruitment flyer for consumer interviews

Have you Attended the Emergency Department?

If you might be willing to be interviewed please contact:

Nikki Harvey
PhD Candidate
School of Nursing, Midwifery and Nutrition
James Cook University
Ph: 07 47815308
Mobile: [redacted]
Email: nikki.harvey@jcu.edu.au

This study has been granted ethical approval from Many Happy Returns Hospital Ethics Committee and JCU Ethics Committee.

Did you attend the Emergency Department after 01 January 2006, and were you pregnant at the time? If so, would you be willing to have a short confidential interview as part of a project which aims to improve the department's management of pregnant women? I look forward to working with you if you are willing to be interviewed.

Regards, Nikki

Appendix F: Information sheet for consumer interviews

Many Happy Returns **Hospital Health Service District**

INFORMATION SHEET
FOR INDIVIDUAL INTERVIEWS

STUDY NAME: "THE TRIAGING AND MANAGEMENT OF PREGNANT WOMEN IN QUEENSLAND EMERGENCY DEPARTMENTS"

PRINCIPLE INVESTIGATOR: NICHOLE (Nikki) HARVEY

Dear Participant,

Thank you for requesting further information about the individual interviews for the study entitled, '*the triaging and management of pregnant women in Queensland emergency departments*'.

To help me understand your experiences more fully I am seeking volunteers who have been reviewed in the emergency department during their pregnancy (for either a pregnancy or non-pregnancy related problem) to participate in an interview. If you agree to being interviewed your informed consent is required. The consent form has been attached to this information sheet for you to sign, prior to the interview. I will collect the signed consent form when we meet for the interview.

I will contact you directly to organise a convenient time to conduct the interview. The interview will be held at an agreed time, date and venue, and will last for approximately 30 minutes. The interviews will be audio-taped and I may take some additional hand written notes. The interviews will be semi-structured, enabling you to respond to the questions in a more open-ended and conversational manner. The primary question that will be asked in the interview is:

- Could you please describe your experience of being seen in the emergency department when you were pregnant?

I may ask additional questions to clarify information or to make certain that I have understood you properly.

The week following the interview I will send you a copy of the transcript of what was said during the interview for your approval. Amendments can be made to the transcript at this time. If you would like a summary of the results of this research study, which is

due to be completed at the end of 2009, please contact Nikki Harvey on the details given below.

It will not be possible to trace back to you personally anything that you disclose during the interview and your identity will be protected in all documentation related to this project, including articles for publication, conference presentations and a PhD thesis. At all times your safety, privacy, confidentiality and anonymity will be respected and maintained. The information gathered will contribute to a larger study which aims to improve the department's management.

If you have any questions about the research please contact Nikki Harvey on (07) 4781 5308 or Nikki.Harvey@jcu.edu.au or Nikki's PhD Supervisor, Professor Colin Holmes, on (07) 4781 5329 or Colin.Holmes1@jcu.edu.au

Involvement in this study is voluntary, and there is no monetary payment.

Thank you for taking the time to read this information sheet and I look forward to working collaboratively with you to help improve the care of pregnant women in the community.

Yours sincerely

Nikki Harvey
PhD Candidate
School of Nursing, Midwifery & Nutrition
James Cook University

This study has been reviewed and approved by the *Many Happy Returns* Hospital Health Service District Human Research Ethics Committee [Protocol Number 18/07] and James Cook University Human Research Ethics Committee [H 2627]. Should you wish to discuss the study with someone not directly involved, particularly in relation to matters concerning policies, information about the conduct of the study or your rights as a participant; or should you wish to make an independent complaint you can contact the Chairperson, Many Happy Returns Health Service District Human Research Ethics Committee via email at Manyhappyreturns-Ethics-Committee@health.qld.gov.au or telephone (07) 4444 0000.

Appendix G: Chart audit tool

Chart Audit Tool for the Triage and Mangement of Pregnant Women in the ED

UR Number	Age	Date	Mode of arrival at ED	Presenting complaint	Gestation	Triage Scale Category	Assessment	Tests performed in ED				Seen by or D/W obstetric team	Impression	Treatment plan/ referrals/admission	LOS in ED Arrival, Review & D/C (Minutes)	Comments
								BHCG	USS	PV exam	Other					

Appendix H: Invitation email to join PARG

The Triage and Management of Pregnant Women who Present to the Emergency Department

My sincere thanks to all that were involved in the focus groups. The information obtained has been very helpful and will assist the Action Research Group to determine what changes and strategies are required to improve the management of pregnant women in the emergency department.

As you no doubt are aware, this topic was recently front line news across the nation. The tragic incident of a woman miscarrying in the toilet at a Sydney Emergency Department has brought fresh cries from the public to improve the current service. Subsequently, change has been brought in as a knee jerk response to this.

I would like to extend an invitation to be a member of the Action Research Group, whose purpose is to develop, implement and evaluate strategies to improve this service. If you would like to be a member of the group please email me with your expression of interest. I believe that as a multidisciplinary group we are in the unique position to develop strategies that will be appropriate and sustainable for all concerned.

The Action Research Group will consist of between eight and twelve members from the two speciality areas. Ideally the group will comprise:

2 x Obstetricians/ Obstetric Registrars
2 x Midwives
2 x Emergency Department Registrars/ Doctors
2x Emergency Department Nurses
1 x GP Emergency Department Liaison Doctor
1x Group Facilitator (Nikki Harvey)

The first meeting of the action research group is tentatively scheduled for:

Wednesday 14th November 2007 at 2.00pm, [Many Happy Returns]. I anticipate that the meeting will last for approximately one hour. Further meeting times will be discussed and decided by the group at this time.

All interested persons who would like to be a member of the Action Research Group please contact me by Friday 9th November 07. I look forward to hearing from you.

Regards, Nikki

Appendix I: Email notification for the first meeting of the PARG

Dear Action Research Group,

In advance, thank you for committing your time and effort to this project. I know that you are very busy and your willingness to participate in this project is appreciated. I am looking forward to working with you to improve the triage and management of pregnant women when they present to the Emergency Department.

As previously mentioned, the first meeting of the action research group will take place on:

Date: Thursday 6 December 2007
Time: 2.00pm (will take approximately 1 hour)
Venue: [*Many Happy Returns* Hospital]

This meeting will be facilitated by me and Professor Mary FitzGerald, who is one of my research supervisors. No preparation is required; just bring yourself. Each of you will receive a resource folder on Thursday containing information about: the study; action research; and a summary of the preliminary data that has been collected so far. We will also discuss/clarify the aims and objectives of the group, timelines and address any concerns, questions and expectations that individuals in the group may have.

Further meeting times and venues will be discussed on Thursday. As previously mentioned it is anticipated that we will meet monthly for approximately 6 months, but this can be discussed by the group. The group membership is as below:

[Name protected]: ED Nurse
[Name protected]: ED Nurse
[Name protected]: ED Nurse
[Name protected]: ED Physician
[Name protected]: ED Physician
[Name protected]: Midwife
[Name protected]: Midwife
[Name protected]: Obstetric Registrar
[Name protected]: Obstetric Consultant
Nikki Harvey: Principal Researcher

Finally, I am hoping that everyone will be able to attend on Thursday, however if you are unable to attend, can you please let me know by reply email.

I am looking forward to seeing you all on Thursday.

Regards, Nikki

Appendix J: First PARG meeting notes

Thursday 6 December 2007, 2.10pm – 3pm
***Many Happy Returns* Hospital, Meeting Room**

<table>
<tr><td colspan="2">Present: [Names have been withheld to adhere to ethics guidelines]

Apologies: [Names have been withheld to adhere to ethics guidelines]</td></tr>
<tr><th>Items Discussed</th><th>Comments</th></tr>
<tr><td>1. Introductions were made: round table.</td><td></td></tr>
<tr><td>2. Shared purpose of group discussed: To work collaboratively in order to understand and improve the triage and management of pregnant women when they present to the Emergency Department. We believe as a group that change can happen and that people have the right to have a say in decisions/changes that affect them. A multidisciplinary team will enable us to look at this situation from different perspectives and develop changes which are therefore sustainable and appropriate for all concerned.</td><td></td></tr>
<tr><td>3. What's the difference between 'Action Research' and others types of research? Excellent question! Action research lends itself to clinically situated problems; real world problems. Action research is more than just describing or understanding a situation, it is about working towards change to improve the situation. Many research methods will describe what is happening and make recommendations for change, but do not actually bring about change. Using this method, we as a group (a practical group made up of experts with considerable experience) will be aiming to bring about change to improve the way pregnant women are triaged and managed in the Emergency Department. The members of the action research group are known as co-researchers because we are all working actively together, with each other; it is not research conducted 'on' people rather 'with' people.</td><td></td></tr>
<tr><td>4. Ground Rules: Need to be established by the group – how do you see this group conducting itself. I asked that you have a think about what is important to you and jot down what ground rules you would like to see this group adopt. We</td><td></td></tr>
</table>

will discuss these at the beginning of the next meeting. An example given was that there would be no character assassinations (solution focussed not blame focussed); that everyone is respected and listened to; we acknowledge that not all group members will be able to make it to every meeting due to work commitments- you may like to discuss and propose a % of meetings that would be acceptable for members to miss and still make a meaningful contribution to this group.	
5. *Folders:* Each member received an action research folder with: two action research articles (one is a short paper which I recommend you all read – the other is more in-depth for those who would like to read further. Please let me know if you would like further readings on Action Research as I have plenty); the research proposal; notebook (record thoughts, ideas – action researchers are reflective practitioners); summary of preliminary data; A4 copy of research poster.	
6. *Summary of preliminary data*: **Important to mention that this is data and therefore needs to be protected by you**. A summary of similar questions that *focus groups* were asked and what their responses were. Some answers have been ranked by individual focus groups. This will give each of us an opportunity to look at the responses from each of the focus groups and see it from their perspective. Some answers are very similar and others are not. *Consumer Interview*: There is only one consumer interview so far – I am planning on doing at least 6 but have not had any other women contact me. It was suggested that I put some flyers up in the ED waiting room (currently only up in the antenatal clinic waiting room) – excellent suggestion; I will arrange to do this within the week. *Protocols:* The group would like a copy of Emergency Department guidelines for early bleeding. [I will bring to next meeting] *Emergency Triage Education Kit:* The group would like a copy of Chapter 9: Pregnancy and Triage. [Nikki to bring] I spoke with Marie Gerdtz who is one of the main developers of the education kit, about our action research. She was	

very interested in the project – She could see how the changes that we will develop would complement this type of resource and would like to be kept up to date. This is a great opportunity for members of the action research group to get our work acknowledged in a national way.
<u>*Media Reports*</u>: Many recently; [Name withheld to protect privacy] will send an article she saw recently in a magazine to group members.
 	
Homework:
▪ Read the preliminary data: note similarities/differences/inconsistencies/things that you were unaware of and not aware of. These can be discussed more and explored more to generate a better understanding of the problem in future meetings.
▪ *Critical thinking questions* as you read the data:
    ▪ What sustains this problem? What keeps the status quo as it is? (we need to look at the reasons why it is happening so that we are effective in changes we develop)
    ▪ Who's benefiting from the current system? Who's losing out?
    ▪ What seems to be helpful and what seems to hinder the process?	

7. *Points brought up at meeting for further discussion:*
    ▪ Most women do not get seen in clinics before 20 weeks. Booking in is very late- all women must have referrals from GPs and every referral has to go through the consultant which slows it down also. All these processes will impact on problem. GPs confirm it takes 8 weeks to get a booking appointment here. Suggestion: book in through midwives.
    ▪ Ultrasound is under staffed at the moment. What is happening is ED rings for an ultrasound and the O& G guys have said yes get a scan and I will review the scan. The ultrasound people are then ringing the O & G guys and telling them that they don't believe the scan is necessary and just send them home.
    ▪ Some discussion about a separate triage scale for pregnant women. Need to be careful re interpretation and application of scale as even the ATS is not	

interpreted and applied consistently. What can we do to minimise different interpretations and application? ▪ Back in the olden days in [location withheld] when [name withheld] was around, people would present all the time and not go all the way to ED. An examination room was set-up and a registrar would see patients/ women. The ambulance use to have to come to the first hospital and stabilise the patient regardless of the presenting problem. ▪ Royal Women's Adelaide: Royal Women's assessment unit: anyone that is pregnant gets seen there first. Midwives triage them from there – to GP, BS, clinics, ED etc. It is a 24 hour service. Gold Coast also has a similar system: 2 midwives - early assessment midwives work mon-fri 8-4.30 based in ED and will triage any pregnant women that presents. ▪ Antenatal assessment clinic. We've got one now, but it doesn't work; doesn't have the right criteria and hasn't got an allocated medical officer. To run a service like that you need an allocated medical officer.	
8. *Feedback to group*: Email was considered a good method of communicating in between meeting.	
9. Group membership details: Suggested that a list of group members and details would be good. Paper circulated for those that wish to write down contact details – will circulate again next week for members that were not present.	
10. *Next meeting*: The group decided it would be good to meet prior to the end of the year so that the rest of the group could be there. Date decided: Thursday 20 December 07, 2pm – 3pm. ['Many Happy Returns' Hospital Meeting Room] [some discussion around timing of meeting – whether 2pm is the best time or not; please consider and feedback to group].	
Minute Recorder: Nikki Harvey	

Appendix K: Advice sheet about 'bleeding in early pregnancy'

ADVICE SHEET ABOUT BLEEDING IN EARLY PREGNANCY

WHAT IS BLEEDING IN EARLY PREGNANCY?

Bleeding from the vagina in early pregnancy is common, it is thought to happen in almost 1 in 4 pregnancies. There are a number of possible causes for pain and bleeding in early pregnancy.

- Implantation bleeding- when the fertilised egg implants into the uterus- this can cause some cramping and light bleeding and will often last a few days and then stop. Bleeding is usually bright fresh blood and can be light spotting or streaking, also pink mucous stain.
- The cervix- is more prone to bleeding during pregnancy due to the increased blood flow to this area of the body.
- Breakthrough bleeding- hormones prevent your period from occurring when pregnant, sometimes when the hormone levels are not yet high enough to stop your period you may have "breakthrough bleeding". This normally occurs when your period would have been due for eg at 4, 8 & 12 weeks. Usually accompanied by cramping, backache and bloating. It can last for around 3 months.
- Ectopic pregnancy- where the fertilised egg is implanted outside the uterus, usually in the fallopian tube. This is an emergency situation as an ectopic pregnancy can rupture the fallopian tube causing internal bleeding.
- Miscarriage- the spontaneous loss of a pregnancy.

WHAT IS A MISCARRIAGE?

The most common symptom of a miscarriage is vaginal bleeding, which can range from a light spotting to heavier than a period. Often there is associated cramping with pelvic or back pain. Miscarriage is very common in pregnancies in Australia about 1 in 20 pregnancies are affected by miscarriage, most of these occur in the first 12 weeks of a pregnancy.

In the vast majority of cases miscarriage occurs by chance and could have happened to anyone. Many women have at least one miscarriage in their reproductive life and go on to have normal pregnancies.

WHAT IS A THREATENED MISCARRIAGE?

A threatened miscarriage is the term used for pregnancies in which there is some early vaginal bleeding which occurs over several days or weeks. The amount of blood loss can vary. A threatened miscarriage may result in a miscarriage, although, if the symptoms stop the pregnancy may continue and the outcome is usually good.

WHAT TESTS WILL I HAVE?

You may have :

- A vaginal examination.
- A blood test- to measure the level of pregnancy hormone and blood type.
- An USS (ultrasound scan) so that images of your uterus can be seen (this may be on the following day).

AFTER THE TESTS?

The images from the USS along with the other tests will help the staff to know what is happening.
The tests might show one of the following:

- Your pregnancy is developing normally and there is no sign of any problem at this stage.
- You have had or are in the process of having a miscarriage.
- Your pregnancy could not be found- This means that your blood test showed a high level of pregnancy hormone but the USS could not find a pregnancy. This could mean that you are pregnant but it is still too small to be seen, it might also mean you have miscarried or are at risk of an ectopic pregnancy.
- A pregnancy sac was found in your uterus but an embryo could not be seen. Again, this might be because it is too early in the pregnancy and the embryo is still too small to be seen.

If the tests were inconclusive you will need to be tested again within the next few days.

WHEN CAN I TRY AGAIN?

No one is sure whether it is better to try straight away or wait until you have a normal period. After one miscarriage the risk of miscarriage in future pregnancies is about 20%. If you have x3 miscarriages in a row it is suggested you see your GP as tests to identify a cause may be useful. However, most often these tests do not find a problem. It is important to remember that even if you have had x3 miscarriages in a row you still have up to a 75% chance you will carry your next pregnancy to full term.

COPING WITH A MISCARRIAGE

Whether a pregnancy fails at the end or the beginning a woman will often feel a great sense of loss, disappointment and sometimes anger. Guilt is a normal feeling but do not blame yourself, as you have most likely done nothing wrong. These feelings may last for months or even longer. It is important to allow yourself to grieve and give yourself time to get over your loss.

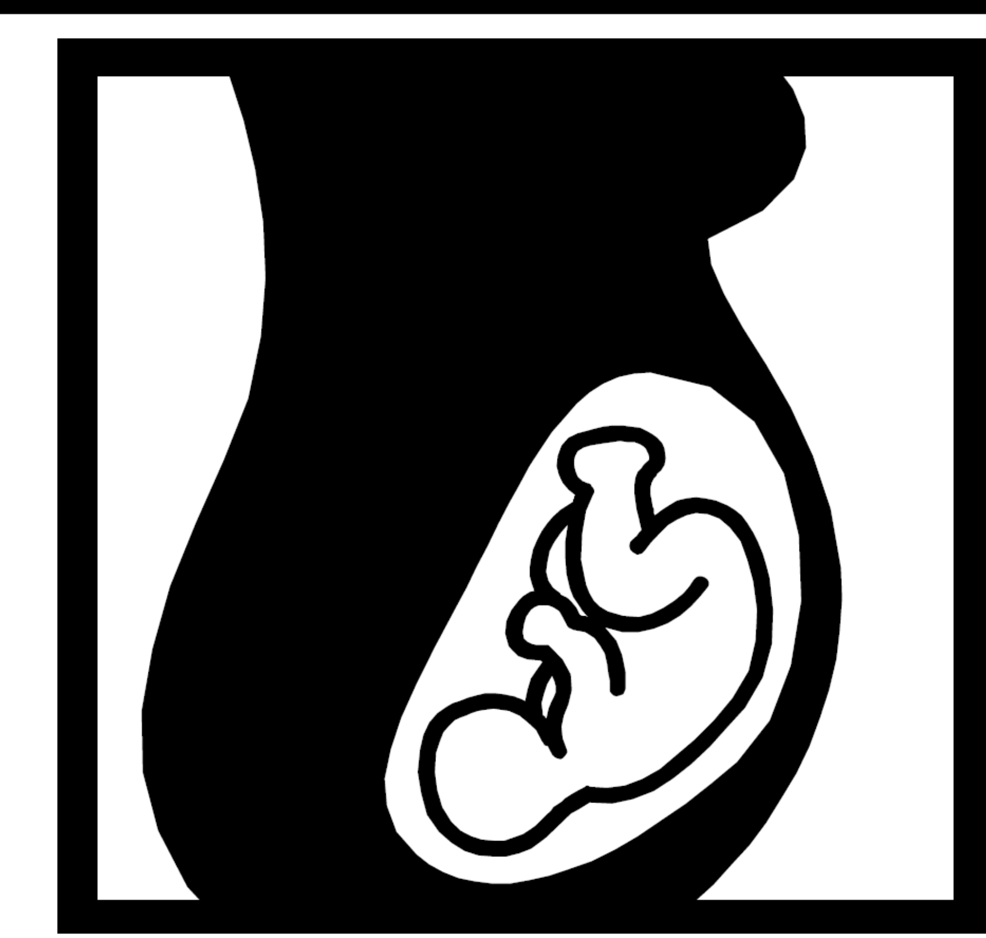
MISCARRIAGE SUPPORT SERVICES

SANDS (Stillbirth and Neonatal Death Support Group)
Ph: 4*** **** [withheld to protect privacy of location]
4*** **** [withheld to protect privacy of location]
Web: www.sandslocationwithheld.org

Ph: 1800 228 655- 24hrs/ 7 days (Freecall)
Web: www.sandsqld.com

THE BONNIE BABES FOUNDATION
Ph: (03) 9803 1800- 24hrs/ 7 days (National)
Web: www.bbf.org.au

Appendix L: Example sign made for display in the ED waiting room and triage area



PLEASE LET THE TRIAGE NURSE KNOW IF YOU ARE PREGNANT

Appendix M: Evaluation questionnaire: 'bleeding in early pregnancy flowchart' and 'bleeding in early pregnancy advice sheet'

The Triage and Management of Pregnant Women in the Emergency Department
Principal Researcher: Nikki Harvey (Nikki.Harvey@jcu.edu.au) | 2009

Evaluation of 'Bleeding in Early Pregnancy Flowchart and Advice Sheet' Questionnaire

Please complete the following questionnaire and place in envelope provided. If you have any questions please contact [name withheld], Level 2 Registered Nurse, Emergency Department, 'Many Happy Returns' Hospital (...@health.qld.gov.au)

Question 1. Do you know what the 'Bleeding in Early Pregnancy' ***flowchart*** is? **YES** ☐ **NO** ☐

Question 2. If so, have you used it? **YES** ☐ **NO** ☐

Question 3. If you have not used it, why? ______________________________

____

____

Question 4. Did you find it helpful? **YES** ☐ **NO** ☐

Question 5. If you ticked yes for the above question, in what ways did you find it helpful? If you ticked no to the above question, in what ways did you find it unhelpful? ______________________________

____

____

Question 6. In your opinion, are there any improvements that the flowchart needs? ______________________________

____

____

Question 7. Do you know what the 'Bleeding in Early Pregnancy' ***advice sheet*** is? **YES** ☐ **NO** ☐

Question 8. If so, have you used it? **YES** ☐ **NO** ☐

Question 9. If you have not used it, why? ______________________________

____

____

Question 10. Did you find it helpful? **YES** ☐ **NO** ☐

Question 11. If you ticked yes for the above question, in what ways did you find it helpful? If you ticked no to the above question, in what ways did you find it unhelpful? ______________________________

____

____

Question 12. In your opinion, are there any improvements that the advice sheet needs? ______________________________

____

____

Comments Welcomed: ______________________________

____

____

Thank you for taking the time to complete this questionnaire
Regards, [Name Withheld]

Appendix N: Triage flowchart for PV bleeding in early pregnancy

TRIAGE GUIDELINES FOR PV BLEEDING IN EARLY PREGNANCY

>20 WKS TO BIRTH SUITE

Abnormal BP (↑ or ↓) is a warning that the pregnancy may be compromised & should be d/w the s/c re category & bed

TRIAGE

- Assessment - history/USS/LMP/gestation
- Urine pregnancy test
- Vital signs - within 30mins of triage
- PV bleeding
- Abdominal pain

If had no USS and according to pain, pv loss + vital signs - put on a bed and make a minimum Cat 3 (cannot rule out ectopic)

MINIMAL BLEED/PAIN	MODERATE BLEED/PAIN		SEVERE BLEED/PAIN	
	Stable	Unstable	Stable	Unstable
4 Waiting room	3 A side	3/2 A/E side	2 E side	1 E/Resus

MINIMAL
Spotting on pants or toilet paper - bright or dark loss

MODERATE
Super pad change every 1/24 - bright loss

SEVERE
Super pad change every 1/2 hr, gushing down legs - towel in place - bright loss

☆**NOTE:** Take into consideration emotional state of woman when triaging may require quite/private room.

THIS IS A GUIDLINE ONLY IF UNSURE D/W THE S/C OR FLOOR CONSULTANT

Appendix O: Revised and updated ED policy

The *Many Happy Returns* Hospital

Emergency Department Guidelines

Out of Hours (1700 – 0800 hours) Guidelines for Ordering USS for Bleeding and / or Pain in Early Pregnancy (1st trimester)

1. Patients requiring an USS 24 hours per day

- Haemodynamically stable
- Significant pain > normal menstruation pain and/or
- Significant bleeding >> normal menstruation
- High suspicion of ectopic pregnancy based on physical exam and history
    - Adnexal tenderness, cervical motion tenderness, peritonism, shoulder pain
    - PID, previous ectopic or tubal surgery including tubal ligation
    - IUD or history of infertility
    - Smoking, advanced maternal age, prior spontaneous or medical abortion
    - No USS confirming IUP
- Physician to contact Radiology registrar or consultant on call personally

2. Patients needing to remain in ED or TESS for USS within hours (0800 – 1700)

- Haemodynamically stable
- Bleeding > normal period
- Cervical motion tenderness or adnexal pain
- History of syncope but stable at present
- Poor social situation-no car, no phone, unreliable follow up
- Frequent observations including vital signs and pad check while in department
- Physician to write request form and leave in US slot at the shift coordinators desk

3. Patients who can be discharged home pending an USS and medical follow-up within hours

- Threatened or presumed complete miscarriage
- Stable
- Minimal bleeding or pain

- Minimal abdominal or PV signs
- Ready access to hospital if deteriorates – car, phone, lives close, other adult at home
- Physician to write request form and leave in US slot at the shift coordinators desk

- Patient instructed to phone X Ray department on the next weekday morning at 0900hrs for an appointment time

ED protocol for bleeding in early pregnancy

Perform a urine pregnancy test on all women of reproductive age (think 12-50) with abdominal pain, PV bleeding or syncope.

If BHCG is positive then:

- blood for quantitative BHCG, FBC, G&H
- NBM

If patient is haemodynamically unstable

Presume ectopic pregnancy, incomplete miscarriage with cervical shock or incomplete miscarriage with massive haemorrhage

- Treat on 'E' side of ED (not 'gynae' room)
- ABC
- 2 x 16 GUAGE IV cannulae
- X-match 6 units blood
- Inform floor consultant, O&G reg, anaesthetic reg, OT staff (ask someone else to call if busy treating patient)
- Perform urgent speculum examination and clear os of products of conception (POC) (send POC for histology). This may stop PV bleeding and restore BP
- If clearing the os of POC does not control bleeding consider using ergometrine (250mcg IV or 500mcg IM) OR if past history of heart disease, thyrotoxicosis or severe vascular disease use Syntocinon (10iu) IV or IM.
- Anti-D if rhesus negative. 250iu if patient < 12/40 and 625iu if patient >12/40 or multiple pregnancy (order from pathology on a lab requisition form)

If patient is haemodynamically stable

- Treat on 'A' side of ED (use 'gynae' room)
- History and Examination including speculum and bimanual
- Transvaginal USS

Transvaginal USS results determine further management in STABLE patients only

1. ***Ectopic pregnancy***
   - O&G review

- Inform floor consultant/registrar
- NBM
- Keep monitored
- Anti-D if rhesus negative, 250iu if patient < 12/40 and 625iu if patient >12/40 or multiple pregnancy

2. ***Indeterminate pregnancy location on USS***
    - If quantitative **BHCG > 1500** (discriminatory zone for TVUSS,), then most likely ectopic
    - O&G review
    - Keep monitored
    - NBM
    - Anti-D if rhesus negative, 250iu if patient < 12/40 and 625iu if patient >12/40 or multiple pregnancy

    - If quantitative **BHCG < 1500**, then either ectopic, NORMAL early pregnancy or early pregnancy loss
    - O&G review or consult by phone
    - Consider other cause of abdominal pain (appendicitis, pancreatitis, renal colic etc)
    - Outpatient O&G or GP follow-up
    - Repeat USS in 7-10 days
    - Repeat BHCG in 48 hours
    - Anti-D if rhesus negative. 250iu if patient < 12/40 and 625iu if patient >12/40

3. ***Viable intrauterine pregnancy***
    - Discuss with ED Registrar / O&G Registrar
    - ? other cause of abdominal pain
    - Home if pain and bleeding settle
    - Follow-up if bleeding continues with either O&G outpatients or GP
    - Anti-D if rhesus negative. 250iu if patient < 12/40 and 625iu if patient >12/40

4. ***Nonviable intrauterine pregnancy***
    - O&G consult & follow-up
    - If Anti-D if rhesus negative. 250iu if patient < 12/40 and 625iu if patient >12/40
    - Home if expectant management or awaiting an 'elective' D&C as long as has adequate access to emergency services

5. ***Complete miscarriage / Empty uterus*** (products of conception passed – beware decidual sac)
    - O&G consult
    - Anti-D if rhesus negative. 250iu if patient < 12/40 and 625iu if patient >12/40
    - Products of conception to histology
    - Home if afebrile and PV loss minimal
    - O&G referral & follow-up. Need to discuss with O&G reg, then write an urgent referral request to O&G outpatients with a specified date and then fax it to ****

A NOTE ABOUT PREGNANCY TESTS

- A positive serum pregnancy test is defined as >25 IU/L (may be positive on Day 23 of cycle i.e. before the time of a missed period).
- 1% of ectopic pregnancies have negative serum ßHCG.
- A negative urinary HCG doesn't always exclude pregnancy especially if early.
- During the first 6 weeks of pregnancy, the doubling time of ßHCG is constant (every 48 hours) if < 6000.
- Abdominal USS – gestation sac seen if ßHCG >6000
- Trans Vaginal USS – gestational sac seen if ßHCG>1500

BLEEDING IN EARLY PREGNANCY

- After 6 weeks, the rise is slower.
- A 2/3 rise in ßHCG over 48 hours is the lower limit of normal for a viable intrauterine pregnancy.
- But 15% of viable pregnancies have a less than 2/3 rise of ßHCG over this time.
- Also 15% of ectopics have a 2/3 rise in quantitative ßHCG over 48 hours.

DISCRIMINATORY ZONES ON TRANSVAGINAL ULTRASOUND SCAN			
Gestation	**Structure Seen**	**Length**	**ßHCG**
4.5 weeks	Gestation sac	5mm	1,000
5 weeks	Yolk sac	8mm	2,500
6 weeks	Embryo	13mm	5,000
> 6 weeks	Fetal heart seen if fetal pole	> 75 mm	17,000

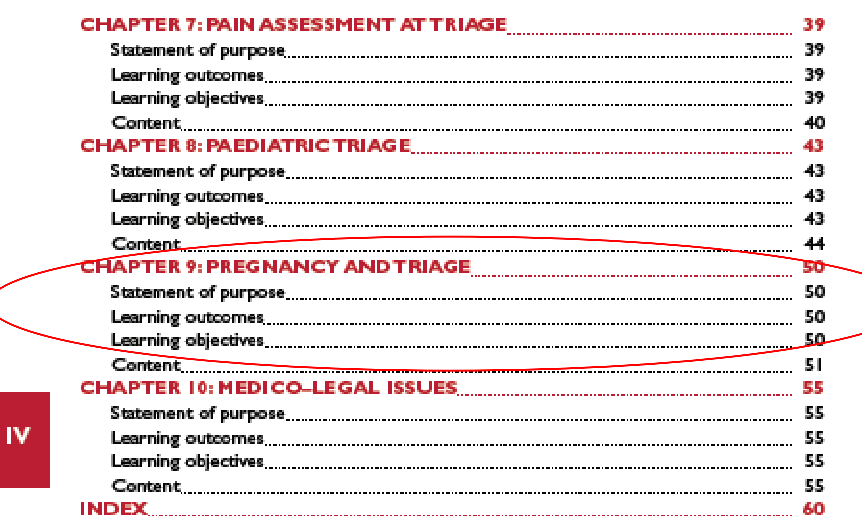
In other words, ***on TRANSVAGINAL scanning, the pregnancy is not normal*** if:

a) The ßHCG is >/= 1500 and no intrauterine gestation sac is seen (ectopic or complete miscarriage, history and examination is important to differentiate).
b) The gestation sac is >13mm and no yolk sac is seen (blighted ovum).
c) The gestation sac is >18mm and no embryo is seen (blighted ovum).
d) The fetus is > 5mm and no fetal heart is seen (missed abortion).

On TRANSABDOMINAL ultrasound, the pregnancy is not normal if the qßHCG is >/=6000 IU and no gestation sac is seen (add one week to the appropriate ultrasound scan parameters)

Appendix P: Emergency triage education kit: Chapter 9

EMERGENCY
TRIAGE
EDUCATION
KIT



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IV

Appendix Q: Brochures produced by the PARG and social work department

When can I try for another baby?

Some couples decide that they want to begin trying for a pregnancy right away, while others feel that this is too soon and need time to over this loss. There is no 'right' thing to do, and you have to go with your feelings. It is advisable to allow a few weeks for your body to recover both physically and come to terms with the emotional upset.

What if I have miscarried before?

Unfortunately, because it is so common, as many as 1 in 30 women will have 2 miscarriages due to nothing more than chance. Extensive investigations and treatment has not been found to be helpful.

After three miscarriages in a row, it would be advisable to undergo some tests to rule out a specific cause. Your doctor can speak to you about this.

Can I improve my chances for next time?

As mentioned before, the most common reasons for miscarriage can't be helped; however you can prepare yourself for pregnancy. Taking in regular exercise, a healthy diet, reducing stress and getting your weight within normal limits gives you something to concentrate on, and improves chances for long-term fertility. Certainly reducing your alcohol intake and stopping smoking will help, too. Remember to start taking folic acid daily to help normal development of the baby's nervous system.

Resources

Brochure

"Saying Goodbye before you've said Hello" written by SANDS Stillbirth and Neonatal Death Support (QLD) Inc including miscarriage support available from SANDS and The Many Happy Returns Hospital.

Books

"When the Dream is Shattered" by Judith Murray
"Empty Cradle, Broken Heart" by Deborah L Davis

Websites

http://www.sandsqld.com/
www.dannytucker.net/health/miscarr.html

Support

SANDS [Name deleted]: 4*** ****/ 4*** ****
Social Work Dept: Many Happy Returns Hospital: 4*** ****
Your G.P.

"Outstanding People. Genuine Care"

Contact:
Social Work Department
Women's and Children's Allied Health
Many Happy Return Hospital
PO Box *** [Address]

Ph: 07-4*** ****
Fax: 07-4*** ****
[website]

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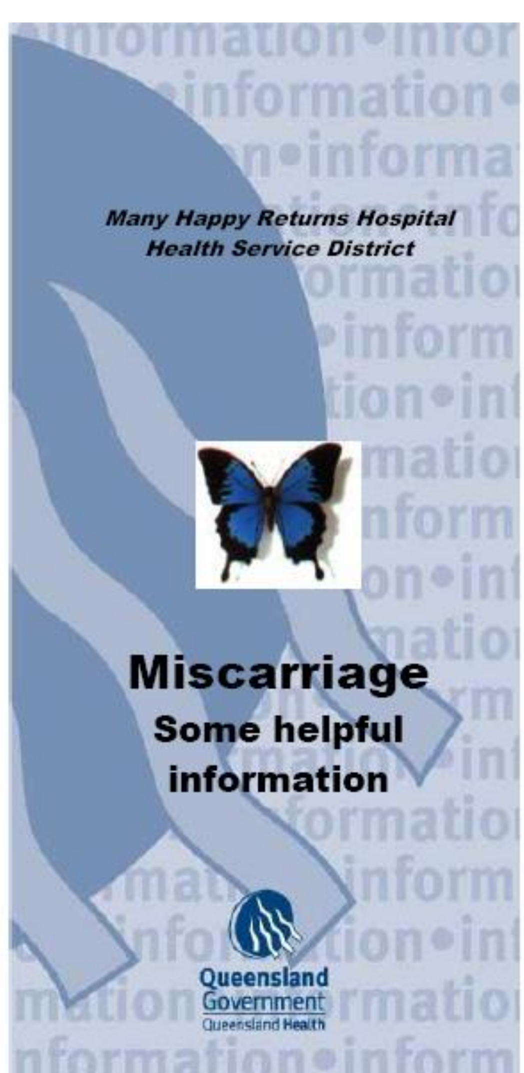

A miscarriage is when a baby dies in the first half of pregnancy. After 20 weeks of pregnancy, it is called a stillbirth. The following information will help you understand more about why this happened and what to do next.

What is a miscarriage?

Unfortunately, around one in five pregnancies end in miscarriage, but it is not something people often talk about openly.

What are the causes of miscarriage?

Much is still unknown about why miscarriages happen, but the most common reason is a genetic mis-match that takes place when the egg and sperm meet during fertilisation. This is usually due to bad luck, and for most women it is a 'one-off' event with a good chance of a successful pregnancy in the future.

The risk of miscarriage is increased as the woman gets older, for example after 40 it is as common as 1 in 2. Health problems, such as poorly controlled diabetes can increase the risk. Smoking and heavy drinking are linked with a greater chance of miscarriage.

What are not causes of miscarriage?

Stress, exercise, working, and sexual intercourse do **NOT** increase risk of miscarriage.

What about Birth Registration?

There is no legal requirement to register the birth for miscarriage.

What happens to my baby now?

1. Hospital/Laboratory Disposal

If you do not have special wishes or any desire to be involved with the final arrangements, this is perfectly acceptable and will be respected.

In this instance, the staff will follow hospital procedures for disposal. The hospital is unable to provide you with the ashes or arrange a ceremony.

2. Private cremation or cremation

You may wish to make suitable arrangements with a Funeral Director. There will be costs incurred for this service.

3. Burial outside a cemetery

There is no legal reason you cannot arrange burial at home or other place you wish, provided certain requirements are met.

Note: If you are considering either option 2 or 3 please advise the nurse and/or doctor as soon as possible. They will refer you to the Social Worker for further information and support to ensure that your wishes where possible are met.

Is there any Centrelink assistance to help with the costs?

Unfortunately, not for miscarriage.

What happens after a miscarriage?

Following a miscarriage, it is advisable to take it easy and rest for a couple of days. It will help if you have someone you trust with you, so that you can talk openly about your feelings. After a couple of days it is helpful to return to a normal daily routine.

After a miscarriage you might experience headaches or have trouble sleeping. You may also experience lack of appetite and fatigue. Many women feel anger and sadness after a miscarriage, while many others experience a strong sense of guilt, even though it is not your fault. These are all natural reactions.

A miscarriage can be frightening, confusing and depressing. Grief is a very normal reaction to the loss you have experienced and it may be as intense as that after any other loss. Women should not let people ignore or belittle what they have been through. The people they choose to talk to must be prepared to listen to what they have experienced and deal with the strong emotions involved.

Any woman who finds it too difficult to deal with her grief, or who continues to feel depressed, should seek support.

Men often feel they have to be strong for their partner and find their loss particularly difficult to talk about. Although it is hard at first, it may help to try and tell family or close friends how you feel too.

When will the bleeding stop?

The loss will probably continue for about 7-14 days, decreasing toward the end of this time. It shouldn't be much heavier than a period, and shouldn't have an offensive smell. Normally your next period will come by 6 weeks or so. It they were irregular before, then it may be longer.

Resources

SANDS brochures

- For Grandparents When a Baby Dies
- A Father's Grief
- For couples when your baby has died
- Family and friends when a baby dies
- Your other children when a baby has died
- For teachers and carers of children 0-6 years who experience the death of a sibling
- For teacher and carers of children 5-12 years who experience the death of a sibling

(more titles available)

Books

"When the Dream is Shattered" by Judith Murray
"Empty Cradle, Broken Heart" by Deborah L Davis

Websites

http://www.sandsqld.com/

http://www.sidsandkids.org/qld/index.html

Contacts

- **SANDS** – [Name] – 4*** ****(H) [Name] – 4*** **** (H) 4*** ****(W) Email: ****
  Web: www.sands****.org
  [Address]
- **SIDS and Kids**
  24hr Child Death Support Line

1800 628 648

If you find that you need further professional support contact your Social Worker who can advise and assist to provide counselling and refer if further is required.

Your Social Worker is:

....

Telephone:..........................

"Outstanding People. Genuine Care"

Contact:
Social Work Department
Women's and Children's Allied Health
Many Happy Returns Health Service District
[Address]

Ph: 07-4*** ****
Fax: 07-4*** ****
Website:

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Many Happy Returns Health Service District

Loss of a Baby

In your time of grief.....

Social Work

providing support, information, and counselling

HOW WILL A SOCIAL WORKER SUPPORT YOU……..

If you are facing the extremely sad and distressing situation where your baby will be stillborn or is likely to die shortly after birth then the Social Worker can assist you and your family.

It is advisable that you speak to the Social Worker as soon as possible following diagnosis to assist with providing correct information and support.

The Social Worker can help with:

- What are normal feelings of grief that I might anticipate experiencing? Even close family and friends will not be prepared for the unique sadness associated with loss of a baby.
- Assist with understanding what has happened. Who do I talk to about it?
- What plan can you make for seeing, holding, bathing and dressing the baby? What is the "right thing to do"?
- Involvement of other children. Could they…. should they?
- How can I tell my other children?
- How to arrange to have the baby Baptised, Blessed or have a Naming Ceremony?
- How you can create memories of your ba
- What can my family and friends do to support me?
- What about an autopsy?
- Do I need to register the birth of my baby?
- Am I entitled to Centrelink benefits?
- What are my options for making arrangements for my baby? What do I do now?
- I don't live in Townsville, how do I get my baby home?
- Am I more likely to develop post natal depression (PND?
- What are some tips for coping when I leave the hospital?
- Is there support for me and my partner following discharge from hospital?
- I had the baby's room all ready. Should I have someone go home and take everything away?
- Can I make a follow up appointment with the Social Worker for support and to collect my baby's belongings and memories?

The Social Worker is available to assist you to consider, discuss and navigate all of these issues as they relate to your situation. Perhaps you have other questions. Please feel free to ask. It helps to write your questions and record the answers.

Other questions for Midwife and/orDoctor

- Is there any impact from what has happened on future pregnancies?
- Do you require a Medical Certificate for me and/or my partner?
- Do I need a follow up appointment with a doctor?
- Should I anticipate milk production and what should I do if I do?

Appendix R: SANDS contact person for support while in ED

SANDS Members who are Happy to be Called to the Many Happy Returns Hospital Emergency Department

Last Updated: 09 Sept 2009

Property of The Many Happy Returns Hospital Emergency Department.

If a woman requests a support person from SANDS to be with her during her stay at the ED you can contact [Name removed] (4*** ****; 04** *** ***) and check her availability.

If [name] is unable to attend the ED at the time she will arrange to talk with the woman at another mutually agreed time.

Appendix S: Research outcomes

Research Publications

Harvey, N., & Holmes, C. (2012). Nominal group technique (NGT): An effective method of obtaining group consensus. *International Journal of Nursing Practice, 18*(2), 188-194.

Conference Presentations

Harvey, N. (2011). The triage and management of pregnant women in a Queensland emergency department: An action research study. Poster presented at the School of Nursing, Midwifery and Nutrition Research School, James Cook University, Townsville, 15-17 June, 2011.

Harvey, N. (2010). Strategies implemented to improve the triage and management of pregnant women in a local emergency department. Paper presented at the Australian College of Midwives: Townsville Local Group Meeting, Townsville, September 2010.

Harvey, N. (2009). The triage and management of pregnant women in emergency departments. Poster presented at the Australian College of Midwives: Queensland Conference, Townsville, 28 July 09 – 31 July 09.

Harvey, N. (2008). The triage and management of pregnant women in emergency departments. Paper presented at the Australasian Midwifery Expo 2008 Conference, Brisbane, 5 November – 8 November 08.

Harvey, N. (2007). The triage and management of pregnant women in emergency departments. Poster presented at the Australian College of Midwives 15th National Conference, Canberra, 25 September 07 – 28 September 07.

Changes to Practice

The participatory action research group implemented a number of changes to practice to improve the triage and management of pregnant women in the emergency department. Some of these changes included:

- ✓ The development of a one page triage flowchart for management of pregnant women who present with bleeding in early pregnancy;
- ✓ The development of an advice sheet to be given to pregnant women who present with bleeding in early pregnancy;
- ✓ The development of two pamphlets by the PARG members and the Social Work department, to be given to pregnant women who have had a miscarriage or lost a baby;
- ✓ Development of a Stillbirth and Neonatal Death Society (SANDS) resource folder for the emergency department;

- ✓ The establishment of contact people from SANDS that were happy to be contacted by the ED if a pregnant woman who was experiencing a miscarriage requested a support person;
- ✓ The delivery of educational sessions to ED nurses and doctors on pregnancy related problems, by the midwifery educator on topics such as: bleeding in early pregnancy and hyperemesis;
- ✓ The instigation of the requirement that all triage nurses complete 'Module 9: Care of Obstetric Patients' of the National Triage Kit and pass the test at the end of the module;
- ✓ The development of an atmosphere that allowed for improved communication between the midwifery/obstetric team and the ED and improved networking opportunities;
- ✓ The provision of clear signage in the ED that requests women to let the triage nurse know if they are pregnant;
- ✓ The purchase of a gynaecology stretcher for the O&G room in the ED;
- ✓ Liaison with SANDS to ensure the delivery of comfortable new arm chairs, new curtains and a cupboard that had been purchased for the O&G room in the ED as well as having the walls painted in the room; and
- ✓ The purchase of a number of portable ultrasound scanners to be used in the ED.
- ✓ Increased understanding about the different issues that pregnant women faced when attending the ED;
- ✓ Increased understanding about the different perspectives of individual group members and their working environments;
- ✓ Increased understanding about the impact of psychological effects that women face from a pregnancy loss;
- ✓ Increased understanding about the reasons why knowledge was seen as a problem, especially with junior staff, which lead to the development of strategies to help improve the situation; and
- ✓ Increased understanding about established rituals in the hospital such as the '20 week rule' and 'booking-in' policy;
- ✓ Increased understanding about ANDAC and its purpose, which was a catalyst for a review of ANDAC;
- ✓ Developed a heightened awareness of the issues about the real causes of unsatisfactory circumstances which then caused them to challenge the status quo;
- ✓ Developed a heightened awareness of the issues that pregnant women face when they present to the ED, which directly affected ED clinicians' attitudes and behaviours when caring for pregnant women who presented with problems in early pregnancy; and
- ✓ Developed an increased awareness about each other's roles which directly affected the communication and relationships between the multidisciplinary areas.