EXPERIENCE BEFORE AND THROUGHOUT THE NURSING CAREER

The wartime experience of Australian Army nurses in Vietnam, 1967–1971

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Aims. To provide a synthesis of the experience of nursing in the Vietnam War.
Rationale. War and nursing are linked unequivocally. As battles have raged over the centuries, nurses have attended the ill and wounded soldiers, nursing them back to health or into death and the study of this phenomenon forms a significant part of Australia’s nursing history. However, a review of the Australian scholarly nursing and military history literature revealed that the experiences of Australian nurses in the Vietnam War has not been widely published. In an attempt to redress this gap in Australian nursing and military history, the aim of this study was to analyse the nature of the nursing work in the Vietnam War, and to increase awareness and understanding of the experience of nurses in the war within the nursing profession.
Methods. Using oral history interviews, this study investigated the nature of nursing work as experienced by 17 Australian Army nurses who served in the Australian Military Hospital in Vung Tau between 1967 and 1971.
Findings. The vast majority of the nursing sisters sent to Vietnam knew little about the type of work or the environment into which they were entering and were, therefore, clinically unprepared. It appeared that, by virtue of their being a nurse, it was an expectation that the nurses would adapt to the nature of their work in the war zone. However, this study also revealed that, although the nurses adapted professionally, their memories of their experiences have affected many personally.
Conclusions. This paper will increase current knowledge significantly regarding the phenomenon of nursing in the Vietnam War, enabling a greater understanding of the experience.

Keywords: military nursing, oral history, wartime nursing, Australian Army nurses
Introduction

Since the end of the Vietnam War, the war itself has continued to be a constant presence in Australian consciousness. There is an increasing presence of published material on Australian bookstores and in libraries written by Vietnam Veterans describing 'their war’, both in Vietnam and since (Burstall 1986, McKay 1989, 1996, McCauley 1990, Savage 1999). The major contribution of this study is that it provides an analysis of one forgotten aspect of Australia’s involvement in the Vietnam War, the work of the nurses. This study concentrates primarily on the nature of the nursing work undertaken by Australian Army nurses who served in either the Eighth Field Ambulance or the First Australian Field Hospital in Vung Tau, South Vietnam. To relate the history of the nature of nursing work in the Vietnam War, the broad questions of this study were concerned with the experience of the nurses during their tour in Vietnam and the nature of their nursing work. The aim of this study was to provide an analysis of the nature of the nursing experience in the Vietnam War, and to increase awareness and understanding of the experience of the nurse veterans within the profession of nursing.

The study

Method

In keeping with the study aim, this was an historical research project that utilized oral history inquiry as it was considered that the use of oral history was the method best suited to answer the research question. The expression oral history was first coined in 1948 by Professor Allan Nevins from Colombia University to describe a 'process of recording the spoken memoirs of significant individuals’ (Taksa 1989, p. 3). Eventually definitions of oral history began to evolve from histories of significant individuals to becoming a more ‘everyday person’ orientated research method, where the lives of the ordinary person were valuable and fiercely sought. Although the method, like all qualitative methods, has been criticized for its perceived subjectivity (Biedermann et al. 2000), the oral history interviews in this project provided a forum for the nurse veterans to elaborate on their recollections, and brought to light valuable material such as diaries, photographs, and newspaper clippings.

Forty-three female nursing sisters served in Vietnam. When this study began in 1997, two of those veterans were deceased, and one was terminally ill and residing in Scotland. Ethical clearance was gained from the relevant university ethics committee, as well as from the Australian Defence Medical Ethics Committee. Eighteen nurse veterans agreed to participate in this study, however, one withdrew her consent after her interview and her data were withdrawn from the project. Participants requested being allocated a pseudonym as for many, their memories of Vietnam were sensitive and confronting, and they were reluctant to have their real name associated with some of their memories. This in itself conflicts with some historians’ philosophy of historiography (Russell 1998), however, it was strongly believed that the rights of the participants should outweigh such theoretical arguments. Data were collected from recorded in-depth interviews, conducted primarily at the women’s residence throughout Australia and from the Australian defence archives stored at the National Archives of Australia and the Australian War Museum.

Findings

Characteristics of the nurses

While this study sought to uncover the nature of nursing work during the war, understanding who the nurses were, and how they came to be involved in wartime nursing was particularly important. Certainly, like any population of individuals, the women who joined the Royal Australian Army Nursing Corps in the 1950s and 1960s did not belong to any homogenous category. The mean age of the 43 Army nursing sisters at the time they served in Vietnam was 28 years, with a median age of 26. The youngest nursing sister to serve in Vietnam was 22 and the eldest was 45. The majority of the nurses (83%) had grown up in rural areas of Australia, and cited their family or nursing educators as strongly influential factors in their decision to join the Australian Army. Almost 80% had been in the Army for 2 years or less prior to being sent to Vietnam and remarkably, this figure is similar to the findings in research conducted with American Vietnam veteran nurses (Schnaier 1982, Paul 1985, Norman 1986, 1990, Scannell-Desch 1996).

Perhaps not unremarkably within the context of the generation of the profession, all nurses joined the Army with similar nursing backgrounds. All were general trained nursing sisters and all had midwifery certificates. Only one had a psychiatric nursing certificate, four were trained theatre nurses, and one had an accident and emergency nursing certificate gained whilst in the United Kingdom (UK). Most reported that in retrospect, they were not clinically prepared for the type of nursing that they would be expected to perform in Vietnam. They also acknowledged that they were forced to compensate for their knowledge deficits very
Experience before and throughout the nursing career

Experiences of nursing work from 1967 to 1968

In April 1967, the first four Australian nursing sisters, a captain and three lieutenants, were sent to Vietnam. Three of these four veterans participated in this study, and all believed that their deployment was politically motivated. Before leaving for Vietnam they did not receive any specific training or information to prepare them for their role and their arrival was not met with overwhelming approval. All three indicated that initially many of the male soldiers were ‘hostile and resentful’ of their arrival. While this animosity was not expected, the nurses reported that once they were able to ‘prove themselves’ to the men, the animosity subsided and a supportive team developed.

The small military hospital, housed in huts and tents, had a sixty-bed patient holding capacity, with the ability to treat two major injuries and eight minor injuries simultaneously in its triage area. The four nurses assumed the charge positions of the medical and surgical ward, intensive care and theatre, as well as alternating night duties in which one sister was responsible for covering all the wards. The sister-in-charge of the medical ward was also the matron, responsible for nursing administration. The types of admissions to the medical ward were generally patients with short-term medical conditions that required rest or conservative treatment away from the field environment.

Battle casualties are an unfortunate but inevitable consequence of war. The method in which ballistic wounds were caused, such as mines, high velocity missiles, and booby-traps, as well as the location in which they were sustained, such as paddy fields or along waterways where human and animal excrement were common, contributed to the medical definition of the Vietnam War as being a ‘dirty war’ (O’Keefe 1994). Additionally, burns caused by explosives and combustible material led to a significant increase in the requirement for a burn treatment policy.

By virtue of the implementation of helicopters for the evacuation of casualties from the field, often within minutes of wounding, wounds would be treated before they could worsen. Once the helicopter had landed at the hospital, the casualties were taken directly to triage. By definition, triage is the process of sorting patients and classifying them in terms of relative urgency. In Vietnam, it ensured that those who need treatment foremost received it, and that limited resources were not wasted on those who could be delayed with little harm or who were certain to die (Ross 1967). In 1967, the nurses were also expected to assist in decision making in triage, particularly when several casualties came in at once.

The role of the nursing sisters in triage was often as a resuscitation team leader, in which they would assess the casualty from head to toe, front and back, and commence life saving measures such as airway and respiratory support, and circulatory support. To coincide with the vast array of surgical procedures and limited doctors, an anaesthetist taught the theatre sister, Kim, how to intubate and ventilate the patients under general anaesthetic. There was only one anaesthetist in 1967 and he would take the major case, and Kim, or one of her trained theatre technicians, would anaesthetize the second patient when required. The transcripts of the interviews conducted for this study illustrate that this practice of extended roles continued throughout the 5 years in which the nursing sisters were involved in the Vietnam War. Despite the minimal staffing during 1967, the triage and theatres worked at a high level of success. For example, in the 6 months from September 1967 to March 1968, the staff at the hospital were successful in resuscitating all but one of the 170 battle casualties admitted (O’Keefe 1994).

As with many advances in medicine, nursing, and medical technology practice, war served as an agent for change in the implementation of a new emphasis of care towards critically ill patients. With its origins in the military hospitals of the Second World War, intensive care units were further defined in the Vietnam War. However, intensive care units were still a relatively new concept in patient care in Australia in the 1960s. Consequently, when the first four nurses arrived in Vietnam, none had ever worked in such an environment. However, within 3 days of arriving in Vietnam, Sally was responsible for establishing an intensive care unit in conjunction with the advice and requirements of the medical officers. Ordinarily, the patients admitted to the intensive care unit were postoperative, who required intensive monitoring and interventions until they were stabilized and could be transferred to the wards. However, critically ill medical patients were also admitted if patient load permitted.

The Tet Offensive was an event that had a significant impact on the smooth functioning of the Australian hospital. The Tet Offensive was a surprise offensive launched by communist North Vietnamese forces simultaneously throughout Vietnam during the Chinese and Vietnamese lunar New Year (known as Tet). On the evening of 30 January 1968, the Viet Cong and the North Vietnamese Army launched a surprise attack on every major allied installation, and in some places, inflicted huge casualties. For the next 7 days, the Australian facility was inundated with
casualties. Throughout February, the medical and nursing staff treated 68 battle casualties alone. The theatre sister recalled the significance of the Tet Offensive at the time in our interview:

...from the time that we were informed that something was happening with the Tet Offensive to the time when the Tet was finished, it was a constant flow of casualties. We would just get dust-off after dust-off, and one time, from the moment the first casualty arrived to the moment that we treated every one, we had been going nonstop for 36 hours...and I was the only nursing sister in theatre.

Because of the Tet Offensive, the admissions far exceeded the capacity of the wards, and this intensity of work influenced the accuracy of some of the recollections of the event. For example, Kim recalled that there were well over 100 patients in the hospital at one time during the Offensive. She recalled: ‘I think, altogether, during the Tet Offensive, we had over 400 patients come through the hospital’. After the peak of the Tet Offensive, the facility settled back into a less intensive workload until April 1968, when the nurses completed their 12 months’ tour of duty and were gradually rotated back to Australia and replaced by a cohort of six new nurses. On 1 April 1968, the larger First Australian Field Hospital was raised, taking over from the Eighth Field Ambulance at Vung Tau. The bed capacity of the field hospital increased to 106 beds, and comprised of a surgical and medical ward of 50 beds each, and an intensive care unit of six beds. An additional two nursing sisters arrived later that year, bringing the total number of Australian nursing sisters in Vietnam at the time to eight. Like their predecessors the nurses that arrived in 1968 came into an environment in which they were uncertain and clinically unprepared. Undoubtedly, the admissions into hospital seriously impacted upon the type and intensity of nursing work. Because of the increasing numbers of Australian soldiers in Vietnam and their increasingly mobile role within the Phouc Tuy province, there was a gradual increase in the number of admissions in 1968, particularly leading up to the months of October and November. During those months, the 100-bed capacity of the hospital was exceeded as admissions rose rapidly, as a result primarily of an increase in the incidence of admissions of patients suffering with malaria and fevers.

In 1968, communication between the helicopters and the hospital surrounding casualty evacuations improved immensely. Whereas in 1967 where often, the medical evacuation helicopters would arrive unannounced, the field hospital quickly established links with the American casualty evacuation centre so that the hospital would be informed of the numbers and categories of arriving casualties. With news of incoming wounded, a siren would sound and all hospital personnel would converge on the triage area regardless of the time and whether they were on duty or not and many nurses cited this as stressful and fatiguing – because effectively they were never off duty. The matron disclosed that she attended every dust-off that came in during her 12 months in Vietnam, and she was an active participant in the triage process. As the theatre sister, Gwen also attended every dust-off. In 1968, the triage area had expanded to six bays, meaning that more casualties could be brought to the facility rather than by passing directly to an American facility. The role of the nursing sisters in triage did not change significantly with the expansion of the unit, and like their predecessors, most nurses agreed that they were clinically unprepared to resuscitate such critically wounded soldiers.

Another event that influenced significantly the nature of nursing work in 1968 was termed the malaria crisis. Malaria has been described by military commanders as being a ‘relentless and cunning enemy’ (Black 1973), and like other epidemic diseases, it is capable of disintegrating troop strength more than any weapon in war. Throughout the period of Australian involvement in the Vietnam War, malaria had an impact on the efficiency of the troops, particularly after the commencement of the annual wet season. In July 1968, the number of soldiers admitted to the hospital with malaria spiralled up into pandemic proportions and by late August, the medical officers in the Australian forces announced that they predicted that the incidence of malaria would reach crisis proportions. It was feared initially that the malaria being contracted by the Australian soldiers was a new strain of drug-resistant malaria (O’Keefe 1994). However, it soon became highly apparent that the soldiers were neglecting their ordered anti-malaria discipline, predisposing themselves to increased risk of malaria. The number of malaria cases continued to rise rapidly, and for the month of October, 258 malaria cases were diagnosed among Australian and New Zealand troops (O’Keefe 1994, Biedermann 2001). In November, the number of diagnosed cases reduced to 105 (Biedermann 2001).
treated for malaria or pyrexia of unknown origin at the one time. At the end of October, the malaria patients occupied all beds in the medical ward, and all but four in the surgical ward. The standard treatment regime meant that the patients were administered anti-malarial medication up to three times a day. Despite the activity in the other wards, Jane stated that the other nursing sisters would always go to the medical ward to assist the staff when not on duty. They would sponge the febrile patients, change dirty or contaminated linen, restock ward supplies, and prepare the anti-malarials. Initially, the Australian pharmacist was only able to supply the medical ward with double-dose Quinine, which was inconsistent with the doctor’s orders. Jane explained her role in preparing the anti-malarials for the medical ward staff:

…I can remember that the tablets [Quinine] were round, hard and sugar-coated, and we couldn’t get half doses, we could only get full doses. So we’d be there with these bandage scissors and we’d have to cut them in half…you can imagine! They’d crumble and go everywhere, and you never really knew if they were getting the right amount or not. This went on for weeks, and we’d all go and give a hand to cut up these tablets. I remember going back to my room one day with blisters on the tops of my thumbs from the scissors.

This element of team work was a strong theme throughout the descriptions of nursing work. Several indicated that it went against the culture of nursing to go home when they knew that one of their colleagues was busy, so instead they would go to the busiest ward to help, and as one nurse commented ‘it’s not like we had anywhere else to go!’

Experiences of nursing work from 1969 to 1971

By April 1969, the rotation of nursing sisters to and from Vietnam began again. As in the previous year, there was no transition period in which the nurses could conduct a handover apart from a few hastily scribbled notes to their successors. During this time, the number of nursing staff increased from eight to 10, as well as two additional nursing sisters from the Royal New Zealand Nursing Corps, bringing total nursing staff to 12 – far exceeding the numbers of previous years. Of those 10, five participated in this study, and all agreed that they had no real concept of what was to be expected of them in Vietnam, a theme that appeared to have persisted over the 5 years. Throughout 1969, the infrastructure of the hospital was improved with air-conditioning to the wards, reliable electricity, hot and cold running water and toilets.

In the calendar year of 1969, hospital admissions rose significantly compared with the previous year, despite the effect of the malaria crisis in 1968. The number of admissions in 1969 was 3839, that is a rate of 534.9 per 1000 men (O’Keefe 1994, Biedermann 2001), ensuring that the hospital ran virtually at full bed occupancy for the majority of the year. Despite this intensity, the nature of nursing in the wards like surgical and medical, as well as intensive care and theatre changed very little during this period, except that 8-hour shifts became standard practice (apart from in intensive care where two nursing sisters rotated 12-hour shifts). However, the increasing number of wounded soldiers arriving increased the workload of the hospital staff, particularly in theatre and the surgical and intensive care wards. The categories of surgical procedures did not change significantly from previous years. General surgery (which included exploratory surgery and wound debridement) was still the most common surgical procedure undertaken, primarily because of the nature of the wounds arriving in the hospital, although orthopaedic, vascular, and maxillo-facial surgery was also commonly practised.

Like their predecessors, the nursing sisters recalled many incidents of sleep deprivation because of the intensity of the dust-offs resulting from the rise in battle casualties. One veteran recalled:

…I had a stretch of about 47 hours where I just hadn’t been to bed because about 40-something patients were brought in one hit. Of course you can’t say ‘I’m tired, we’ll do him tomorrow’. So you had to just keep going until you were finished the whole lot. You lived on coffee and cigarettes when you had something like that because you had to get them through.

The two nurses allocated to intensive care in 1969 had been sent to work in an intensive care unit at Concord Hospital in Sydney for 3 months prior to their deployment to Vietnam. This detachment provided them with skills and confidence not extended to their predecessors, neither of whom had ever worked in such a high intensity clinical area before. The number of admissions to the intensive care unit varied significantly during this year, and was obviously affected by the numbers of casualties arriving at the First Australian Field Hospital. In 3 months from April through to June, 39 patients were admitted into the intensive care unit, staying an average of 6 days. In the final 3 months of that year, 28 patients were admitted to intensive care, staying an average of 5 days.

In 1970, the Vietnam War was progressing through a succession of transformations. The battles, military operations and skirmishes continued, but public opinion of the war was changing quite significantly at home in Australia. If Vietnam could ever have been considered a popular war prior to 1970, the Australian community definitely no
longer considered it so. By 1970, Australia was beginning to curtail its involvement and commitment to the war in South Vietnam commencing with a withdrawal of a battalion in November. By this time, the Australian hospital had matured into a massive and almost self-sufficient medical support system. The hospital consisted of 63 predominantly air-conditioned buildings covering just over three hectares. Although the size of the hospital had grown in the previous 3 years, the bed capacity had not increased and the staffing levels were still well below the recommended establishment for a 100-bed Australian Military Field Hospital. Throughout 1970, 13 Australian Army nurses and two nurses from the Royal New Zealand Nursing Corps served in Vietnam. Four of those nurses from this cohort participated in this study, and these women provided the most diverse descriptions of nursing work in the Vietnam War of any cohort.

Similarly to the previous 2 years, on day duty, one nurse was responsible for the five-bed medical or surgical wards, another for the 10-bed intensive care unit, one nurse for both triage and theatre, and one nurse who was responsible for the Regimental Aid Post. Unlike in previous years, the medical and surgical wards and intensive care were staffed around the clock by nursing sisters who assumed the supervisory role, working primarily rotating 8-hour shifts when staffing levels were at their greatest, or 12-hour shift when sickness or leave reduced their numbers.

While the intensity of battle activities and resultant casualties were decreasing in 1970, there were nevertheless some seriously busy times, particularly between February and August 1970. For example, on 28 February, nine Australian soldiers were killed and 16 others were wounded in a mine accident in the Long Hais mountain range near Vung Tau. By the end of February, the hospital had treated 88 battle casualties (O’Keefe 1994, Biedermann 2001). As had transpired in 1969, the majority of the critical battle casualties in 1970 were inflicted by mines, while the majority of nonbattle casualties presented with burns. Work in the surgical ward and intensive care appeared not to have changed significantly from the previous years. Louise was allocated to intensive care, however, she had no previous relevant clinical experience and remembered her time in Vietnam as ‘extremely traumatic and devastating’. As a result of the decreasing battle casualties, the numbers of admissions to intensive care decreased also. For example, in the 3 months from April to June, the unit had only 11 admissions, with an average length of stay of 5 days, significantly less than the figures from the previous year (Biedermann 2001). The intensity of the work in the surgical and medical ward continued to decline, and was described by some nurses as being just as intense as any other ward back home in an Australian Metropolitan Hospital.

By 1971, Australia’s involvement in the war was winding down and this significantly affected the nature of the nursing work in that year. There were eight nursing sisters in Vietnam in 1971, but only one agreed to participate in the study, hence it is difficult to authenticate the reliability and consistency of the narrative provided. As her narrative revealed that her recollections of her time in Vietnam were neither pleasant or positive, describing nursing work in this year became difficult. Theresa worked primarily in the theatres until the closure of the hospital in November 1971. She described the work as ranging from ‘mundane to devastating’. She recalled that there were regular quiet periods in which there was very little apart from simple routine surgical cases, and that it was difficult to maintain morale amongst her medics. The rate of battle casualties in 1971 was 37.3 per 1000 men (O’Keefe 1994), by far the lowest rate for all 5 years in which the Royal Australian Army Nursing Corps was in Vietnam. Commonly, boredom caused far more friction than in previous years, and Theresa indicated that none of the nurses were particularly close during her tour of duty. This is interesting in itself, as the majority of the previous cohorts, particularly in 1968 and 1969, reported close friendships and teamwork was actively fostered – perhaps as a mechanism to manage the stress of the high intensity and traumatic nature of the experiences at that time. On 7 November 1971, the Australian combat role in the Vietnam War ended when the Fourth Royal Australian Regiment withdrew from Nui Dat and returned to Australia. Most medical personnel, including the nursing sisters, were withdrawn from Vietnam by late November. The First Australian Field Hospital was relocated to Manunda Lines, Ingleburn, New South Wales, Australia in December 1971, and renamed the First Field Hospital, beginning a new era of military medical care.

Discussion

This project has provided rich and often humbling insights into nursing work in the Vietnam War. Some stories were highly powerful, charged with negative emotions and tears. Others were stories of personal triumphs and successes. The women entered a traditionally male domain and despite inadequate preparation, clinical inexperience, fatigue, and periods of emotional trauma, were quickly working in an environment that lent itself to situations in which they were forced readily to adapt. For many nurses, it meant that they needed rapid acquisition of knowledge as they became involved in situations such as the resuscitation and treatment of young men with horrific wounds and injuries, all the while conscious of their
being in a war zone. For most, their tour of duty was the turning point of their careers. Whatever the emotive construct of the narratives, each nurse veteran provided an insight into the nature of nursing work and its meaning to them.

The narratives also indicated that there were several factors involved in the reporting of the nature of this nursing work. First, the year in which the nurses served in Vietnam significantly influenced their experiences. The pace of the war and the numbers of casualties changed continuously over time. For example, the experiences of the nurses who served in the Tet Offensive in late-January, early-February 1968 were never repeated throughout the 5 years of the Royal Australian Army Nursing Corps’ involvement. Additionally, the intensity of nursing work during the malaria crisis was never again experienced by any other group of nurses. Another influential factor was the rank worn by the nurses, those nurses who wore the rank of Lieutenant worked under different conditions to those who wore the rank of Captain or Major. Generally speaking, the Lieutenants worked in a primarily clinical role, in that they were involved in the daily running of a clinical ward, such as surgical or intensive care. Majors on the other hand, performed the role of the Matron, and assumed less of a clinical but more of an administrative role. The place in which the nurses worked, such as theatre, surgical ward or medical ward also influenced the reported experiences of nursing work. For example, the experiences and recollections of nursing work in theatre were often vastly different to those of the nursing sister in the medical ward during the same period.

**Conclusion**

This study began with one question: What was the nature of nursing work in the Vietnam War? Earlier, we indicated that the aim of the study was to describe the nature of the nursing work in the Vietnam War, and to increase awareness and understanding of the experience of nursing in that situation. To do this, the voices of the women who had served in Vietnam were paramount in identifying and exploring the nature of nursing work. In order to meet these aims, interpretive oral history was used as the method to guide the collection, analysis and interpretation of the narratives. There was no simple way to define nursing work in the Vietnam War. Factors such as previous clinical experience, rank, year of posting, and place of work influenced significantly the experience of nursing work. This project has served to reinforce the belief that we have much to learn from these women and their experiences. In essence, we have much to learn from our past. Australia sent almost 60 000 defence personnel to serve in Vietnam or its surrounding waters during the war years, with around 500 deaths and over 3000 casualties. A forgotten part of those 60 000 defence personnel includes the 43 women who volunteered to serve their country as nursing sisters.

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**References**


