

Real time ultrasound imaging of lumbar multifidus in chronic low back pain populations: a systematic review of methodological consistency and measurement reliability

Connie Whittle and Carol Flavell

College of Healthcare Sciences, James Cook University, Townsville, Queensland

Background/Aims: Real time ultrasound imaging (RTUS) is used to measure the lumbar multifidus (LM) muscle in low back pain (LBP) populations. However, increased body mass index and older age in chronic, compared to acute or sub-acute LBP subgroups, presents challenges to measurement reliability and RTUS methods. Therefore, a review of the reported methodologies and reliability for LM measurements was conducted to identify the evidence base for RTUS clinical application in chronic low back pain (CLBP) populations. **Methods:** A systematic search of MEDLINE, CINAHL, PEDro, Cochrane, Scopus and Informit databases was conducted. Studies that reported RTUS measurement of LM in CLBP populations were included. Two independent reviewers used the QualSyst and the QAREL to appraise each of the included studies. **Results:** Seven studies were included in the review. Methodological quality was moderate to high for these studies. Transducer position, measurement and patient position varied throughout the included studies. Reliability was poorly reported or not reported and was calculated from healthy or combined healthy and CLBP populations. Intra-rater reliability was moderate to high with an ICC [3,1] over 0.9 and a dependability co-efficient from 0.50 to 0.94. Inter-rater reliability was lower with a dependability co-efficient ranging from 0.31 to 0.78. **Conclusions:** This review showed that reported methods were inconsistent and reliability was often reported from combined CLBP and asymptomatic subjects. Currently, insufficient evidence exists to determine the reliability of LM measurement using RTUS in CLBP populations. Future studies to evaluate measurement reliability of LM using standardised methodologies specifically in CLBP populations are required.

Psychological support within a neonatal unit: what is it and what does it look like?

Corrine Dickinson¹ and Allyson Browne²

¹The Townsville Hospital, Townsville, Queensland

²School of Medicine and Pharmacology, University of Western Australia, Perth

Background/Aims: Currently, there is no clear indication of the prevalence of psychological distress among parents who have babies admitted to the Neonatal Intensive Care Unit (NICU) of the Townsville Hospital (TTH). The type of input required is also unclear in the absence of national benchmarking data across NICU services. **Methods:** A literature review of current knowledge of psychological aspects of neonatal admissions and best practice models of early psychological intervention was conducted. **Results:** Literature review revealed that the adverse psychological reactions experienced by mothers of neonates can compromise parenting capacity and interaction with the infant and have long-term negative consequences on developmental outcomes for the infant. In addition, rates of trauma or post-traumatic stress disorder symptoms have been documented between 23-41% for NICU parents. There is emerging evidence of the benefits of early psychological interventions that target trauma symptoms and parent anxiety. For example, trauma focused cognitive behaviour therapy reduces symptoms of depression and trauma for women during their baby's NICU admission. **Conclusion:** Early evidence-based focused psychological interventions for parents during their baby's NICU stay are required, highlighting a significant gap between best practice and current service levels. Investigation of the psychological well-being of parents in TTH NICU in the first weeks after their baby is born is urgently required, with specific emphasis on the inclusion of fathers. This review has informed a new research project to investigate the local need for psychological support which will aid in the development of a local model of psychological service.

I've got mixed feelings: attitudinal ambivalence toward health behaviours

Daniel Lindsay¹ and Anne Swinbourne²

¹College of Public Health, Medicine and Veterinary Science, James Cook University Townsville, Queensland

²College of Healthcare Sciences, James Cook University, Townsville

Background/Aims: Attitudinal ambivalence occurs when individuals hold both positive and negative attitudes toward the same target object simultaneously. Ambivalent attitudes may be particularly relevant for health behaviours, as these behaviours may have mixed evaluations associated with them. Despite this, the majority of research focused on attitudes toward health behaviours assumes that these attitudes are either positive or negative, not positive and negative. We aimed to assess the ambivalence towards health behaviours to gain a greater understanding of the nature of attitudes underlying these behaviours. **Methods:** A total of 362 participants (M= 26.73 years) took part in this study. Participants completed both cognitive- and emotionally-focused measures of attitudinal ambivalence for different health-promoting (exercise and fruit and vegetable intake) and health-risk behaviours (drinking alcohol and smoking). **Results:** It was found that attitudes toward different behaviours shared differing relationships with the ambivalence measures. Particularly, it seems as though felt ambivalence may predict increased performance of health-protective behaviours. In contrast, potential ambivalence may predict increased performance of health-risk behaviours. **Conclusions:** The results suggest that there may be a complex relationship between attitudinal ambivalence and the performance of different health behaviours.

Changing the delivery of occupational therapy services on acute medical wards at The Townsville Hospital

Gail Kingston,¹ Kym Murphy,² Michelle Watson,¹ Michelle Bennett³ and Tilley Pain¹

¹The Townsville Hospital, Townsville, Queensland

²Sir Charles Gairdner Hospital, Perth, Western Australia

³Rehabilitation and Community Care, ACT Health Directorate, Canberra, Australian Capital Territory

Background/Aims: Occupational therapy (OT) services at The Townsville Hospital have become increasingly reactive with a focus on screening and assessment immediately prior to discharge as opposed to rehabilitation and improving patient function. This study compared a post-acute OT service and allied health assistant (AHA) inpatient support with an inpatient only OT service. **Methods:** Participants were recruited from either an intervention or control ward using an OT needs assessment tool designed for the study. Participants in the intervention group received input from an OT and AHA. Community follow up was provided after discharge by the OT. The control group received standard intervention from an OT with a focus on inpatient care. **Results:** There were no statistically significant differences in patient functional outcome measures between the two groups. The intervention group OT was able to spend increased time with high needs patients, particularly in the patient's home. There was a trend towards shorter length of stay for high needs patients in the intervention group when compared to the control group. **Conclusion:** Using a framework for delegating tasks to AHAs and identifying patients according to functional need, rather than the discharge date, can ensure OTs focus on patients with identified high needs who need intensive OT intervention to facilitate smoother timely discharge planning.