



## Orally Presented Posters

### ORAL001

#### EXPLORING ATTENTIONAL BIASES TO BODY EXPRESSIONS OF PAIN IN MEN AND WOMEN

Category: Psychology

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#### Background

People in pain need to effectively communicate to others they are in need of help. This is particularly the case when the person in pain is unable to verbalise, and so needs to rely on nonverbal signals. Observer accuracy in nonverbal pain cue detection is critical, but can vary, and is effected by a range of individual and contextual factors. Whilst there are known gender differences in the recognition of emotional expressions, it is unclear whether this also extends towards pain cues. Furthermore, most gender-based research focuses on facial expressions, whereas there are other nonverbal channels, such as body postures. Finally, studies tend to utilise simple recognition tasks, whereas there are other, more sophisticated approaches, which allow for deeper investigations into different types of attentional processing. One such approach would be to consider whether there are selective attentional biases toward pain, which in turn occur in a gender-specific way.

#### Aims

The primary aim of this study was therefore to see whether gender differences exist in selective attentional biases towards body expressions of pain and core emotions. An additional aim was to examine whether such biases are due to increased attentional vigilance or slower disengagement from pain cues.

#### Methods

Following ethical committee approval, 47 adults (22 male, 25 female) complete a computer-based dot probe task. Pairs of images from the Bath Emotion and Pain Posture set were presented (left or right of a central point), one of which was replaced with a dot. Participants indicated the location of the dot. Of critical importance was that the images comprised of an actor presenting an expressive and neutral body posture. This technique allows us to calculate an index of attentional bias towards the location of the expressive stimulus, based on the relative speed of response

(reaction time) to probes when the dot appeared in the same or alternative location as the expressive image. The gender of actors and valence of the body posture images (pain, fear, sad) were varied. To consider differences between vigilance and disengagement biases, the duration images were presented for was varied (150 vs. 500 vs. 1250msec).

#### Results

One participant was removed due to missing data, and high number of errors. Attentional bias index scores were calculated, with a positive score indicating a relative bias towards the location of an expressive posture. Analysis of Variance revealed a significant main effect for image valence ( $F(2,88)=4.63, p<.05$ ), in that there was a stronger bias toward pain postures (11.53) than those depicting fear (6.05) or sadness (4.16). There was a significant main effect of presentation time ( $F(2,88)=4.69, p<.05$ ), but this should be interpreted in light of a significant interaction between gender and presentation time ( $F(2,88)=3.98, p<.05$ ). Further analysis of this interaction indicated that a general attentional bias towards expressive postures was sustained across all time presentation points amongst women, but that this was not the case for men; men did not show an attentional bias at the longest presentation times.

#### Conclusion

A specific bias towards images of pain-related body postures was found, which was greater than those found for other negative body expressions. This suggests painful postures are particularly good at capturing attention in observers. A general nonspecific gender difference was also found, although only at longer image presentation times. This suggests whilst men and women are initially vigilant towards emotive postures, men disengage from such images before women do. If so, then men and women may differ in the attentional processes that may contribute towards the decoding of non-verbal signals. Further research using this method is warranted.

### ORAL002

#### ADDRESSING PAIN MANAGEMENT ISSUES FOR MALE CHRONIC ABDOMINO-PELVIC PAIN - ANALYSIS OF THE DATA FROM THE SPECIALISED PAIN MANAGEMENT PROGRAMME LINK

Category: Non-Pharmacological Pain Management

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commonly used outcomes measuring domains similar to the five – item health states.

### Methods

190 adult patients who attended an outpatient five week half-day short PMP (SPMP) and 200 patients who attended a seven week whole day long PMP (LPMP) from January 2013 to June 2015 completed the following outcome measures: the Numerical Rating Scale (NRS) for pain intensity, the Hospital Anxiety and Depression Scale (HADS) for distress and emotional impact, the Pain Self-Efficacy Questionnaire (PS-EQ) for their beliefs of their confidence coping with activity, the Stand-Up test for one minute from a 17 inch height chair without arms for observed physical performance, the EQ-5D (index) of five items of health states and a EQ-5D (VAS 0 – 100) of health state today. Patients were assessed at the beginning and end of the programme and at follow up 6 to 9 months later. The data was analysed using means, standard deviations and the paired two tailed T test.

### Results

The measurements of pain intensity NRS, the total score of HADS, PS-EQ and stand-up test showed change from beginning to end of programme and some were maintained at follow up. Results of the SPMP EQ-5D (index) showed similar increases from beginning to end of programme but were not sustained at follow up. The LPMP EQ-5D (index) showed improvement at the end of the programme which was maintained at follow up. The EQ-5D (VAS) showed improvements from beginning to end of both programmes only sustained for the LPMP. The results at the end of the SPMP were significant for decreased pain intensity and at follow up for decreased pain intensity, and increases in PS-EQ, stand-up test and EQ-5D (VAS). The results of the LPMP were significant from the beginning of programme to follow up for decreased pain intensity, increased PS-EQ and improvements in stand-up test, EQ-5D (index) and EQ-5D (VAS).

### Conclusion

Use of the EQ5D-5L showed changes in QoL, in line with commonly used outcomes for evaluating patients' progress after attending PMPs. The SPMP EQ5D (index) and EQ5D (VAS) were less sensitive to changes in commonly used outcomes that were sustained at follow up. For the LPMP both the EQ5D (index) and (VAS) values showed similar significant improvements at follow up to the commonly used outcomes. The results showed that the EQ5D-5L identified significant QoL changes for patients attending PMPs and evidence in the literature supports its use for measuring change in patients with chronic pain undergoing treatment.

## Cancer Pain

037

### AN EXPLORATION OF BEREAVED CARERS' VIEWS ABOUT INTRATHECAL PAIN RELIEF FOR THE TREATMENT OF CANCER PAIN

Category: Cancer Pain

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### Background

Intrathecal analgesia is known to reduce pain in patients where conventional systemic analgesia has been ineffective or intolerable. However there is little evidence of how this intervention affects quality of life (QoL).

### Aims

To explore how intrathecal analgesia affected QoL in patients with advanced progressive cancer and severe uncontrolled pain and/or intolerable side effects.

### Methods

Qualitative interviews were undertaken with relatives of deceased individuals who had intrathecal analgesia (external system) as part of their pain control. Interviews were analysed using thematic analysis.

### Results

11 interviews were conducted in two UK centres with established intrathecal services. The emerging themes were: i) 'making the decision to have the intrathecal' (relatives described desperate situations with very severe pain and/or sedation, in which the suffering individual would try anything); ii) 'knowing they were having the best' (intrathecal analgesia, with the associated increased access to pain and palliative care services, meant relatives felt everything possible was being done, making the situation more bearable); iii) 'was it worth it?' (the success of the intrathecal was judged on whether it enabled the individual to be themselves through their final illness and dying phase, not simply on improved pain control); and iv) 'not without its problems' (a range of significant side effects were described, however these were considered to be acceptable, if the intrathecal acted to enable self-expression).

### Conclusion

Intrathecal analgesia was perceived to be of greatest value when it achieved quality of time by controlling pain and enabling individuals to be themselves through their final illness and dying phase; under these circumstances significant side effects were judged to be acceptable.

## Education

038

### DO HAVE A SEAT WHILST WE LINK HUMAN FACTORS AND EPIDURALS - INTRODUCING A STRUCTURED EPIDURAL ASSESSMENT TOOL (SEAT)

Category: Education

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### Background

Within Hawkes Bay, New Zealand, epidurals for post-operative analgesia are managed on surgical wards with close anaesthetic input, unless patients require vasopressors.

Recently, there has been a movement from epidurals for enhanced recovery for abdominal surgery as alternative regional techniques have facilitated earlier mobilisation and reduced IV fluid requirement with no mortality difference. Epidurals remain valuable for certain patient groups but worryingly, nursing confidence of caring for them has decreased. Human factors describe the relationship between the individual and their environment and equipment, as well as their inter/intra-personal relationships. Unfamiliarity with epidurals can contribute to reduced efficacy of epidurals with reduced patient satisfaction; increased error with potential for harm; and increase in stress for both patient and staff. To address this learning need for ward nurses, we introduced the Structured Epidural Assessment Tool (SEAT) with a communication strategy for escalating problems using in-situ simulation.

### Aims

To improve technical and non-technical skills for nurses caring for patient with epidurals:

1. Develop an assessment tool (SEAT) with clear triggers to track and escalate for help;
2. Facilitate consistent and standardised assessment of the patient with an epidural;
3. Communicate using SBAR with epidural specific information.

### Methods

Using our trusts acute-pain management guidelines, we developed a simple flowchart SEAT. This covered the management of four domains: the routine assessment and minimum documentation; inadequate analgesia; hypotension and motor block. A supplementary SBAR style communication aid was developed to facilitate concise, epidural specific handover. Attendance was encouraged by bringing the teaching to the wards. Using a combination of didactic lectures and simulation, the theory of epidurals for analgesia was introduced together with an assessment tool to evaluate epidural efficacy and identify complications. Using in-situ simulation with simulated patients, nurses used the SEAT to identify, manage and escalate problems to the relevant team. Feedback was collected in the form of a short pre- and post-teaching survey.

### Results

22 nurses attended teaching sessions between June 2014- May 2015. SEAT was popular amongst nursing staff, with the in-situ delivery being more accessible to staff both in terms of time, location and learning style. Deliberate practice, with feedback of assessing patients with epidurals improved nursing familiarity to the equipment and environment and was an enjoyable way to put theory into practice. Nurses described reduced perceived anxiety of managing epidurals; more confidence identifying problems and more confidence recognising epidural emergencies. Having a structured SBAR style handover was perceived as useful to make communicating problems easier.

### Conclusion

We feel that SEAT addresses human factors that may contribute to epidural safety. Firstly, it serves to reduced cognitive load and stress, by providing a easy flow-chart on how to assess a patient with an epidural. Using the clear sign-posts to identify when to escalate and to whom, the SBAR handover empowered nurses to make timely decisions on management, with a communication framework and confidence to relay problems. To observe translational outcomes, follow up audits looking at the impact of the SEAT are recommended together with focused group discussions with nursing staff who attended the teaching.

039

### THE EFFECTIVENESS OF HEALTH CARE PROFESSIONALS USING ONLINE PAIN RESOURCES: A SYSTEMATIC REVIEW OF EDUCATIONAL INTERVENTION STUDIES

Category: Education

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### Background

The development of new and innovative technologies in the provision of e-learning is growing exponentially and e-learning can facilitate the three domains of healthcare education i.e., knowledge, skills and attitudes. Online learning enables adult learners to tailor their learning according to their unique needs, providing autonomy over their learning and increasing intrinsic motivation, while facilitating the adoption of a reflective approach promoting enhanced learning. Although the amount of on-line instruction for health professionals has increased dramatically overall, and in the field of pain more recently, its effectiveness has not been rigorously evaluated. In fact, evaluation of on-line learning has been characterised as in its infancy.

### Aims

The aim of this review is to provide a synthesis of educational intervention studies exploring the effectiveness of e-learning pain-related resources for health-care professionals on knowledge, attitudes, and skills.

### Methods

The following databases were searched between 1st January 1995 and 1st November 2015: PsyINFO, CINAHL, MEDLINE, ERIC. Web of Science, Scopus, Cochrane Library and PUBMED databases. Initial search terms included three concept blocks: (i) Type of intervention; online education, computer-based, e-learning, web-based, and internet-based intersected with (ii) Population; paediatrician, physician, nurse, psychologist, and medical intersected with (iii) Outcome; pain\*.

### Results

33 eligible studies were identified and included in this review. Overall, the literature suggests pretest knowledge of pain management was

low across many domains, particularly in more complex areas of pain treatment such as palliative care. Knowledge was the most commonly adopted outcome variable, which for the majority of studies improved following training. Improvements in attitudes towards pain management and competence were also reported by some studies and, when assessed, acceptance of online interventions was generally high. Fewer studies explored the impact of training on patient outcomes, although one reported a significant increase in non-pharmacological interventions prescribed for nursing home residents by physicians, while another reported significant decreases in paediatric pain intensity.

### Conclusion

Online pain education benefits healthcare professionals particularly in terms of knowledge, attitudes and to a lesser extent skills. Further research needs to be conducted exploring the potential clinical benefits to patients, which are rarely assessed in the existing literature. The variations among instructional methods and the rapid advancement of technology make it difficult to determine which elements contribute to an effective online learning environment and further research is required in that area.

040

### QUESTIONNAIRES FOR ASSESSING HEALTH PROFESSIONALS BELIEFS AND ATTITUDES TO PAIN; A LITERATURE REVIEW

Category: Education

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### Background

Pain presents a huge economic cost and is a key public health problem currently unsupported by high quality and effective education. It is suggested that the deficit in effective education be addressed by encouraging and empowering inter-professional pain education. Currently only 18% of institutions in the United Kingdom share content relating to pain with another health profession and the amount of time spent on pain education is considered to be inadequate. Successful pain management is dependent not only on understanding and recognising the causes and multisystemic nature of pain but on the attitudes and beliefs of health professionals to pain. Health professionals need to be able to work together and with pain sufferers to enable a transparent holistic approach to pain management. There is a requirement to understand learners' attitudes and beliefs towards pain in order to design pain education that is appropriate for all health professionals.

### Aims

Appropriate inter-professional education of pain management is reliant on understanding attitudes and beliefs of students. This enables educators to design curricula that meet the needs of individuals. The aim of this paper was to explore the literature relating to existing questionnaires that assess health professionals' attitudes and beliefs to pain.

### Methods

A literature search was undertaken including MEDLINE, CINAHL, SPORTDiscus, PsychARTICLES and PsycINFO from 1989-2014.

The search terms were as follows, 'attitudes and beliefs', 'pain', 'questionnaire' and 'health care practitioners' with terms for different health professionals. The quality of the questionnaires were assessed using the COSMIN checklist.

### Results

Seven questionnaires were identified in this literature search. There was overlap in the questionnaires between professions, types of pain and domains. Five questionnaires were profession specific and identified: General Practitioners, Physiotherapists, Nurses, Physicians and Health Care Providers. Three questionnaires were aimed at professionals working with specific patient groups: back pain; neonatal pain and postoperative pain. Two of the questionnaires (The Attitudes to Back Pain Questionnaire for General Practitioners; Back Beliefs Questionnaire (Mutsaers et al 2012); Health Care Providers Pain and Impact relationship Scale (Rainville et al 1995) were back pain related. The following questionnaires (The Pain Attitudes and Beliefs Scale for Physiotherapists (Laekeman et al 2008); Attitudes, beliefs and self-reported competence about postoperative pain among physicians and nurses on surgical wards (Rognstad et al 2012) were profession specific. Two questionnaires (Fear Avoidance Beliefs Questionnaire (Waddell et al 1993); Neonatal pain survey (Schultz et al 2009) were domain specific.

### Conclusion

This literature search revealed a number of questionnaires that have been developed to ascertain pain attitudes and beliefs in a few health professionals and/or for the management of pain in certain conditions or domains. There were no questionnaires that assessed pain attitudes and beliefs in a generic pain population that could be used for inter-professional learners. This is an area that requires further development.

041

### INTRODUCING A STANDARDISED METHOD OF TEACHING PAIN MEDICINE INTO BRITISH MEDICAL SCHOOLS

Category: Education

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### Background

The Essential Pain Management Programme (EPM) was originally developed in Australia and New Zealand by Roger Goucke and Wayne Morris as an educational tool for health care workers in low and middle-income countries. EPM Lite is a scaled down version of the full course, designed with the additional help of Linda Huggins in New Zealand, which is delivered to Medical undergraduates in half a day. The UK Faculty of Pain Medicine introduced EPM Lite as a project in 2014 and the first UK EPM Lite course was held in Bristol in September that year. The course helps students understand classifications of pain, why pain should be treated, and an overview of different drug and non-drug treatments. The half day