Ceri Powell, Medical Student, Imperial College, London Dr Steve Gilbert, Belford Hospital, Fort William 163gilbert@gmail.com

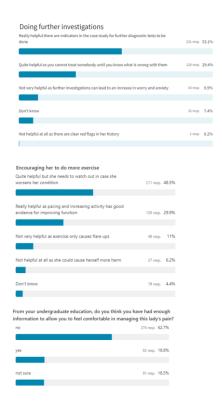
# **Background**

Chronic pain affects one in five people in Australia and is one of the most common reasons for seeking health care as well as a leading cause of disability (1). Effective management involves a biopsychosocial approach (2). The International Association for the Study of Pain (IASP) has created core undergraduate healthcare curricula. (3). However, currently, no medical schools in Australia follow these guidelines (4,5). This study aimed to assess the pain understanding and confidence of pre-registration healthcare students in Australia, by using the Pain **Understanding and Confidence Questionnaire** (PUnCQ) (6) and compared the differences across disciplines and years of study. Furthermore, it aimed to determine students' perspectives on the adequacy of their pain education.

# Methods

An online survey was distributed to healthcare course leads across Australia to share with students in medicine, nursing, physiotherapy, occupational therapy, pharmacy and psychology. The PUnCQ was devised by the National Interprofessional Preregistration Pain Education (NIPPED) group in Scotland. This aims to assess students' pain management knowledge using 12 guestions related to a clinical scenario of a patient who has developed widespread chronic primary or nociplastic pain. The answers to the questions were graded as correct, wrong or wrong with a biomedical bias. Subjects were also asked about their confidence on various chronic pain domains, connected to the IASP undergraduate curriculum using a Likert scale. Further questions explored students' views on the adequacy of their pain education. Data was analysed using non-parametric tests and freetext responses underwent thematic analysis.

# Chronic Pain Knowledge and Understanding in Australian Pre-Registration Healthcare Students



## Case Study:

Mary is a 49 year old woman. She had an MVA 3 years ago, when her stationary car was run into from behind at 20 miles an hour. She wasn't sore at the time but developed increasing pain and stiffness after 1 day. She reported high levels of pain initially. Started as neck/shoulder pain then started spreading down arms and legs. She also has headaches and sleep problems. Now her pain is constant. all over and aching. She has bad days and worse days aggravated by doing anything for too long and by cold. Her pain is eased with rest and heat. Medical treatment with Cocodamol 30/500 and ibuprofen isn't helping and is causing side effects. She's tried other pain killers, including tramadol and pregabalin, in the past. She is worried about being addicted to pain killers. She has been for massage and manipulation and spent a lot of money with no lasting relief. Her pain sometimes flared up afterwards. Blood tests for arthritis were negative. She had an x-ray and her doctor has told her that she has wear and tear. She has been told that she can't have an MRI and she expects her pain will never get better. She has had to give up her work and is applying for benefits, but not sure what to fill in as the diagnosis. She uses better days to try and catch up on housework. She likes to get a job done even though she knows her pain will take a long time to settle.

#### Results

There were a total of 437 responses across the healthcare disciplines. The median percentage correct answers to the clinical vignette was 58%, with psychology students performing significantly worse than the other disciplines. Median confidence levels were 7 out of 10. It was hypothesised that students would be more likely to pick biomedical answers over the correct biopsychosocial answer and this was seen in 3 of the 6 questions with biomedical options. Some questions had significantly lower correct answers; question 3, "Making an objective measure of her pain by seeing how much damage there is on MRI", had 38% correct answers with 56% picking the biomedical options; "Really helpful as having an objective measure can help evaluate treatment" or "Quite helpful as an objective measure can help decide whether she needs stronger analgesics"; Question 4, "Encouraging her to do more exercise", had only 30% correct with 66% picking biomedical options; "she needs to watch out in case she worsens her condition", "exercise only causes flare ups" or "she could cause herself more harm". Question 11, "Doing further investigations", had the lowest correct response rate, with only 10% choosing "Not very helpful as it could increase worry". 82% chose a biomedical options. More than 90% of students expressed a desire for more chronic pain teaching through e-learning, clinical experience, case-based learning, and multi-disciplinary team teaching.

### Conclusions

Results were better than in a previous study of students undertaking the same questionnaire (7). Despite this many students still did not feel prepared to manage chronic pain. Incorporating the IASP curriculum recommendations could help improve students' pain understanding and confidence. This study highlights the requirement for improved pain education in Australian preregistration healthcare courses. Universities need to align their curricula with international guidelines and incorporate biopsychosocial management, to better prepare healthcare students for chronic pain management (8,9,10).

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