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Title: A cross-sectional benchmarking and analysis of clinical assessment data using the electronic Persistent Pain Outcomes Collaboration Assessment tools.
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Introduction:

Pain is a composite experience that comprises of physical emotional and mental aspects. Chronic pain is that which exists beyond the ordinary period of healing, mostly pain that is experienced beyond a period of six months. Several factors like age, weight, and height along with ethnicity influence the perception, expression, and responsiveness to pain. These factors hinder with sleep patterns, physical functionality, and the ability to complete daily activities, social relationships, mental wellbeing and overall quality of life. While complete elimination of chronic pain is very rare in many patients; yet treatment of chronic pain is of utmost importance. Assessment of pain is a crucial step in chronic pain management and poor assessment of pain is even more futile. Healthcare providers utilize psychosocial pain assessment questionnaires to document the chronic pain management of patients. The incidence of chronic pain is increasing in New Zealand and one in every six New Zealanders are affected; which makes it the third-biggest cause of illness-related disability. Data shows that chronic pain cases account for at least 8% of total health loss in New Zealand. Research indicates that most chronic pain sufferers are older population and international data suggests that the incidence of chronic pain is higher in females. Numerous studies have outlined the epidemiology of chronic pain in Australian, American, African and Hispanic populations; however, there is little known about the nature of New Zealand's chronic pain population.

Aim:

- a. To understand the characteristics of chronic pain population at a tertiary pain management center in New Zealand.
- b. Explore associations between demographic variables with psychosocial pain assessment scores.
- c. Compare current study population with overseas population using relevant literature.

Impact:

It is crucial to understand the chronic pain population in New Zealand and as an exploration of data helps in improving best practice interventions and this, in turn, would impact the occurrence of chronic pain in New Zealanders.

Method:

Data was extracted from electronic Persistent Pain Outcomes Collaboration assessment tool (ePPOC). ePPOC is a repository of data; it is an initiative by Faculty of Pain Medicine at University of Wollongong, Australia. It is a set of standard data items that consists of demographic variables and psychosocial pain assessment scores. It is used to measure outcomes in patients suffering from chronic pain. Pre-existing data collected over a period of September 2015 to December 2016 from Burwood Hospital, Pain Management Center was used.

The following variables were used for analysis of the final data set of 245 patients:

- Patient's with age 18 and above only
- Demographic variables age, weight, height and work status

- Psychosocial pain assessment scores for Brief Pain Inventory (BPI), Depression Anxiety Stress Scale (DASS-21), Pain self-efficacy Questionnaire (PSEQ) and Pain Catastrophizing Scale (PCS).
- Ethnicity was grouped as majority and minority; where majority refers to New Zealand European population and the minority being Maori, Asian and other ethnicities.
- Work status categories Full time working and Part Time working were combined into one group. The categories Unemployed Due to Pain and Leave Due to Pain were combined into the second group.

Results:

The study represented 245 patients from New Zealand tertiary pain management center. No or weak association was found between age, weight, height, work status, and psychosocial pain variables. Differences were observed among males and females, pain assessment scores were found to be higher in males. Upon exploring correlations it was found that BPI Severity and BPI Interference had a strong positive correlation with the other pain variables DASS-21, PSEQ and PCS. Also, using relevant literature similarities could be drawn between the present study population and American, Australian, Hispanic and Turkish populations in regards to ethnic differences in pain scores. Overall, the results demonstrated that characteristics of the current study population at the tertiary pain management center were consistent with overseas chronic pain population with respect to gender and ethnic differences in pain assessment scores.

Conclusion:

Through this study more is known about the characteristics of the population, suffering from chronic pain at a tertiary pain management center in New Zealand. The present population can be compared to study population from previous research which may further help in the establishment of improved best practice interventions and targeted interventions based on population needs.