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# Pain education for clinicians in geriatrics: a study into changes in clinician attitudes and beliefs

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#### **Abstract**

A lack of recognition of chronic pain in older adults has fundamental healthcare implications. A practice gap exists that affects evidencebased practice for chronic pain assessment and management specific to older adults. Psychologically informed practice (PIP) has been proposed as a method of enabling health professionals to deliver biopsychosocial pain assessment and management in their practice. The aim of this study was to test the feasibility of a single one-day structured educational program to both introduce the concept of PIP and to shift the attitudes, beliefs and orientation towards patients of clinicians working in the geriatric rehabilitation setting. An observational pre-post study design used two previously validated questionnaires: Pain Attitudes and Beliefs Scale (PABS) and the Patient-Practitioner Orientation Scale (PPOS). Eighteen clinicians from a sub-acute geriatric rehabilitation hospital participated in a one-day pain education training workshop run by an expert psychologist who trains health professionals in pain management skills. Participants completed the questionnaires pre and immediately post workshop. A significant shift (p < 0.001) away from the biomedical model ( $\bar{x}$  = -9.33, 95% CI: -12.41 to -6.26) was detected in the PABS post-workshop. indicating a change towards a more biopsychosocial attitude in assessing and treating chronic pain. Nil significant change ( $\bar{x}$  = 0.61, 95% CI: -2.44 to 3.66) was detected in the PPOS. In conclusion, a one-day structured educational program was feasible in providing foundational steps in implementing the concept of PIP in geriatric rehabilitation settings. This was sufficient to shift key therapist attitudes and beliefs towards a more biopsychosocial model of pain management in older adults, and to reduce the strength of their biomedical attitudes. Surprisingly, this attitudinal shift was not accompanied by a shift in practitioner orientation towards their patients. Practitioner-patient orientation represents a potential translational target to improve the implementation of biopsychosocial principles in the care of the older adult.

**Keywords**: chronic pain, geriatric assessment, attitude of health personnel, behaviour, Education

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### INTRODUCTION

There is a paucity of research into effecting evidence-based practice for chronic pain assessment and management specific to older adults. This is often compounded by the under reporting of chronic pain by older adults in the clinic, despite the evidence of increasing prevalence both in Australia (Blyth et al. 2001; Currow et al. 2010) and globally (Thomas et al. 2007; Tsang et al. 2008). Indeed, in Australia the prevalence of chronic pain is reported to peak in males in the 65-69 year age group (27.0%) and in females in the 80-84 year age group (31.0%) (Blyth et al. 2001). Both men and women above 80 years of age have the highest influence of pain-related interference on daily function (Blyth et al. 2007; Thomas et al. 2007). Older adult chronic pain is associated with several negative sequelae, including mood disruption (Rudy et al. 2007) and disruption in mental flexibility (Karp et al. 2006), but, perhaps most importantly, is strongly linked to falls (Leveille et al. 2009; Menant et al. 2013; Stubbs et al. 2014; Blyth et al. 2007). It is hence essential for health professionals to consider chronic pain in the management of older adult patients.

The current best-practice treatment for chronic pain interdisciplinary biopsychosocial rehabilitation (Gatchel & Okifuii 2006: Kamper et al. 2014; Qaseem et al. 2017). The biopsychosocial model of care is care that regards biological, psychological, social, and environmental factors as equally important in their interaction with human function (Masters 2013). Multiple studies, including a large-scale review, have shown that treatment with the biopsychosocial model that focuses on restoring the function of a patient and involves a wellcoordinated interdisciplinary team is effective in the management of chronic pain (Chou et al. 2009; Nicholas et al. 2012; Oslund et al. 2009; Townsend et al. 2008). The concept of 'psychologically informed practice' (PIP) has been introduced as a model of integrating biopsychosocial principles into the practice of a variety of clinicians to facilitate best-practice pain management where a multidisciplinary team is not available (Porter 2017; Main & George 2011). The education and training of clinicians is proposed as an essential preliminary step in the implementation of this model (Jeffrey & Foster 2012)).

However, little research exists that investigates biopsychosocial pain assessment and management in older adults outside the bounds of specialised multidisciplinary pain teams (Nicholas et al. 2017; Sharpe et al. 2017; Kaasalainen et al. 2017). In addition, there is a deficit in the implementation of PIP specific to the older adult (Kaasalainen et al. 2017). Rather than being unique to geriatric specialist settings, a lack of pain education is common to the current health workforce and is a symptom of shared previous clinical experience (Thompson et al. 2016). Health professionals have identified the major barriers to effective biopsychosocial pain management as being: a biomedically focused education, a lack of confidence (Synnott et al. 2015) and a lack of time (Gibbs 2011). The introduction of theoretical pain education into

undergraduate health professional training (Fishman et al. 2013; Jones & Hush 2011) is an improvement, but not sufficient to ensure a translation of concepts into clinical practice (Rochman et al. 2013; Ung et al. 2015).

The effect of this research and educational deficit is a lack of adequate chronic pain management and assessment in the area of geriatric specialism (Booker & Herr 2016; Hadjistavropoulos et al. 2007; Reid et al. 2015). Most pain education research has focused on a specific form of chronic pain (e.g., lower back) in general populations or related to specific professions, including general practitioners (Bowey-Morris et al. 2010) and physiotherapists (Monaghan et al. 2016; Overmeer et al. 2009). Facilitation of the necessary changes required through implementation is also lacking (Kaasalainen et al. 2017) despite the growing accessibility to resources (Ramaswamy et al. 2015; International Association for the Study of Pain, 2018).

Previous studies have frequently either used the Pain Attitudes and Beliefs Scale (PABS) or Patient-Practitioner Orientation Scale (PPOS) to evaluate the effectiveness of their pain education program (Bowey-Morris et al. 2010; Monaghan et al. 2016; Overmeer et al. 2009). The PABS has a Cronbach's alpha of 0.80 and 0.68 for each subscale it contains and correlates to similar measures (Bishop et al. 2007; Houben et al. 2005). It is a reliable and valid tool to assess clinician attitudes and beliefs towards back pain (Gardner et al. 2017). The PPOS assesses instead the extent to which practitioners believe that patients should share equal power and control with their practitioner, and has a Cronbach's alpha of 0.73 and 0.75 for each subscale (Shaw et al. 2012; Haidet et al. 2001). Combined, these two questionnaires provide insights into clinician attitudes and beliefs towards pain itself, but also towards patient autonomy in healthcare, an important distinction when examining pain through a biopsychosocial lens.

At the time of publication, no study has yet assessed this combination when considering pain management education. Hence, the aim for this study was to test the feasibility of a single one-day structured educational program to both introduce the concept of PIP and to shift the attitudes, beliefs and orientation of clinicians working in the geriatric rehabilitation setting using the above two scales as outcome measures. We hypothesised that therapist attitudes and beliefs would shift towards a more biopsychosocial model of pain management in older adults following the educational program.

## **METHODS**

# ETHICAL CONSIDERATIONS

Low negligible ethical approval was gained from the South Eastern Local Health District Human Research Ethics Council, reference number HREC 17/011. All survey data was de-identified for publication.

## SETTING AND PARTICIPANTS

All clinical staff (n = 240) at a sub-acute geriatric hospital, War Memorial Hospital located in Sydney, Australia were invited to participate via a hospital-wide invitation email. The hospital is a third schedule care hospital specialising in adults over 65 years old only.

## **DATA COLLECTION**

A web-link using an online survey containing two previously validated questionnaires – PABS (Bowey-Morris et al. 2010) and PPOS (Krupat et al. 2000) – was sent to participants via email two weeks prior to, and immediately post, workshop. Pre-reading information was provided in a similar manner a maximum of two days before the workshop, contingent on completion of the email questionnaires. Post-workshop slides were given upon completion of the post-workshop surveys and a paper-based participant satisfaction questionnaire was given at the workshop.

## INTERVENTION

A one-day education workshop was delivered and facilitated by a reputable expert psychologist who trains health professionals in pain management skills at a post-qualification or post-graduate level. The workshop covered the biopsychosocial nature of pain and introduced psychological-informed assessment principles. highlighted the importance of the PIP approach to assessing chronic pain in older adults, case formulation, facilitation of self-management and coping skills strategies in older adults. Intervention options geared towards enhancing patient self-management skills were discussed in the context of a variety of case studies. Clinicians practiced these concepts via role-play and there were opportunities for feedback and further questions to enhance learning and understanding of the approach. For a review of the theoretical framework of psychologicalinformed practice, please see Main and George (2011), Main and colleagues (2012) and Nicholas and Blyth (2016).

# **OUTCOME MEASURES**

The primary outcome measure was the change in score on the PABS and the secondary measure was the PPOS.

PABS is a validated shortened version adapted from the PABS-PT (Ostelo et. al. 2003) and consists of two subscales: biomedical and biopsychosocial. Twelve items in the PABS measure the strength of the biomedical attitudes and beliefs of participants. Five items measure the strength of the biopsychosocial attitudes and beliefs of participants. Each item is rated on a 6-point Likert scale. A higher score on each item reveals a stronger identification with the approach it assesses.

PPOS contains 18 items. The total score ranges from 'patient-centred' to 'clinician-' or 'disease-centred'. A higher score (maximum 108) on the total PPOS indicates a more patient-centred orientation, and a lower score (minimum 18) indicates a 'clinician-' or 'disease-centred' orientation. A score of greater than 90 is considered to indicate a strongly patient-centred orientation (Krupat et al. 2000). The

scale is divided into two subscales of 'Sharing' and 'Caring', with nine items per subscale. Each item is rated on a 6-point Likert scale. Sharing scores reflect the extent to which the respondent believes that: (a) practitioners and patients should share power and control on a relatively equal basis; and (b) practitioners should share as much information with their patients as possible. Caring refers to the extent that respondents believe that: (a) caring about emotions and good interpersonal relations is a key aspect of the medical encounter; and (b) practitioners should care about the patient as a whole person rather than as a medical condition. Figures 1 and 2 contain complete versions of both the PPOS and the PABS.

Data pertaining to participant age, gender, education level, years of experience in healthcare and NSW Health Award level were collected. A paper based participant satisfaction questionnaire was used by the facilitator to gauge whether learning objectives were completely met, partially met or unmet. Learning objectives included 'more familiar with pain and psychosocial contributors to the experience and impact of pain' and 'learnt some pain coping skills that I could teach my patients'. The change in scores for the PABS and PPOS from pre- to postworkshop were calculated by subtracting the pre-scores from the post-scores.

### STATISTICAL ANALYSIS

Data was checked for the assumption of normality (Kim 2013). Related samples Wilcoxon signed-rank test and Spearman's correlations were used. Data are presented as means with 95% Cl. All tests were carried out using SPSS (version 23: SPSS Inc., Chicago, IL, USA) with  $\alpha$  = 0.01, 2- tailed. In order to avoid a Type 1 error due to multiple comparisons, Bonferroni correction was used i.e.  $\alpha$  (3 tests) = 0.05/3 = 0.017.

Pain Attitudes Beliefs Scale				
A I W				
Scoring Key:				
1 - Totally disagree				
2 – Largely disagree				
3 - Somewhat disagree				
4 - Somewhat agree				
5 - Largely agree				
6 - Totally agree				
Reduction of daily physical exertion is a significant factor in treating back pain.				
1 2 3 4 5 6				
2. Patients that have suffered from back pain should avoid activities that stress the back.				
1 2 3 4 5 6				
3. Mental stress can cause back pain even in the absence of tissue damage.				
1 2 3 4 5 6				
4. The cause of back pain is unknown.				
1 2 3 4 5 6				
5. Pain is a nociceptive stimulus indicating tissue damage.				
1 2 3 4 5 6				
6. Functional limitations associated with back pain are the result of psychosocial factors.				
1 2 3 4 5 6				
7. The best advice for back pain is: 'Take care' and 'Make no unnecessary movements'.				
1 2 3 4 5 6				
8. Patients with back pain should preferably practice only pain free movements.				
1 2 3 4 5 6				
9. Back pain indicates the presence of organic injury.				
1 2 3 4 5 6				
10. Sport should not be recommended for patients with back pain.				
1 2 3 4 5 6				
11. If back pain increases in severity, I immediately adjust the intensity of my treatment accordingly.				
1 2 3 4 5 6				
12. Pain reduction is a precondition for the restoration of normal functioning.				
1 2 3 4 5 6				
13. Increased pain indicates new tissue damage or the spread of existing damage.				
1 2 3 4 5 6				
14. There is no effective treatment to eliminate back pain.				
1 2 3 4 5 6				
15. If patients complain of pain during exercise, I worry that damage is being caused.				
1 2 3 4 5 6				
16. The severity of tissue damage determines the level of pain.				
1 2 3 4 5 6				
17. Learning to cope with stress promotes recovery from back pain.				
1 2 3 4 5 6				

Figure 1: The PPOS, source: Krupat and colleagues (2000).

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Patient-Practitioner Orientation Scale (PPOS)
Scoring Key:
1 = Strongly Agree
2 = Moderately Agree
3 = Slightly Agree
4 = Slightly Disagree
5 = Moderately Disagree
6 = Strongly Disagree
1. The practitioner is the one who should decide what gets talked about during a visit.
                          4
              2
                     3
                                    5
                                             6
2. Although health care is less personal these days, this is a small price to pay for medical advances.
                           4 5
           2 3
                                            6
     1
3. The most important part of the standard medical visit is the physical exam.
      1
             2 3 4 5 6
4. It is often best for patients if they do not have a full explanation of their medical condition.
             2 3 4 5
                                           6
      1
5. Patients should rely on their practitioner's knowledge and not try to find out about their conditions on their
                    3 4 5
6. When practitioners ask a lot of questions about a patient's background, they are prying too much into
personal matters.
                     3
      1
                                     5
7. If practitioners are truly good at diagnosis and treatment, the way they relate to patients is not that
8. Many patients continue asking questions even though they are not learning anything new
      1 2 3
                             4 5
                                            6
9. Patients should be treated as if they were partners with the practitioner, equal in power and status.
             2 3 4
      1
                                    5
10. Patients generally want reassurance rather than information about their health
      1
              2
                     3
                            4
                                    5
                                             6
11. If a therapist's primary tools are being open and warm, the practitioner will not have a lot of success.
             2 3 4 5
12. When patients disagree with their practitioner, this is a sign that the practitioner does not have the
patient's respect and trust.
      1
              2
                     3
                             4
13. A treatment plan cannot succeed if it is in conflict with a patient's lifestyle or values.
                    3
14. Most patients want to get in and out of the practitioner's office as quickly as possible.
      1 2 3 4 5
15. The patient must always be aware that the practitioner is in charge.
              2
                      3
                           4
                                     5
                                             6
       1
16. It is not that important to know a patient's culture and background in order to treat the person's illness.
      1 2 3 4 5 6
17. Humour is a major ingredient in the practitioner's treatment of the patient.
             2
       1
                     3
                             4
                                     5
                                             6
18. When patients look up medical information on their own, this usually confuses more than it helps.
                                    5
```

Figure 2: The PABS, source: Bowey-Morris and colleagues (2010).

# **RESULTS**

Twenty-one clinicians registered interest in the workshop and had no prior experience of a similar pain management workshop or any workshop by the expert. Therefore, these clinicians were naïve to this form of pain education. Two psychologists who attended the workshop had prior experience of applying psychological-informed assessment principles to other generic areas of geriatric health. Other clinicians may be conceptually familiar with the biopsychosocial model in health but this information was not collected.

Twenty clinicians who were naïve to the evaluation questionnaires completed the pre-survey, all within one week prior to the workshop. Nineteen attended the workshop, one of whom failed to complete the post-survey and was lost to follow up. Table 1 shows the demographic data from the 18 clinicians who completed the post-workshop survey.

**Table 1:** The demographic characteristics, education, work experience and NSW HEALTH Award Level\* of participants of the education program.

Variable	n	Mean ± SD	Min, max
Gender			
Male	1	-	-
Female	17	-	-
Age (years)			
	18	$47.1 \pm 9.9$	28, 59
Education			
Bachelor's Degree	9	-	-
Master's Degree	3	-	-
Tertiary Education Course	4	-	-
School Certificate	1	-	-
Doctorate	1	-	-
Experience (years)			
	18	22.3 ± 11.9	6, 39
NSW Health Award Level*			
Technical Assistant Grade 1	2	-	-
Clinical Psychologist Year 5+	2	-	-
Registered Nurse Year 8+	2	-	-
Health Professional Level 1	1	-	-
Health Professional Level 3	5	-	-
Health Professional Level 4	2	-	-
Health Professional Level 5	1	-	-

<sup>\*3</sup> participants did not provide their NSW Health Award Level

## **SURVEY RESULTS**

All (n = 18) completed the questionnaires within two weeks postworkshop and were included in the final analyses of the PABS and PPOS questionnaires. Please see Figure 3. Fourteen clinicians completed the post-workshop satisfaction survey.

Compared with the baseline, the biomedical PABS score decreased significantly [mean 38.3 at baseline vs. 28.9 after the intervention, mean difference -9.33, 95% confidence interval (CI): 6.26 to 12.41, p < 0.001]. Significant increase in the biopsychosocial PABS was found post intervention [18.6 vs. 20.9, mean difference 2.33, 95% CI 3.77 to 0.90, p = 0.006]. These results indicate both a reduced biomedical focus and a greater biopsychosocial focus of attitudes and beliefs.

The PPOS score was not significantly different post intervention [83.7 vs. 84.4, mean difference 0.61, 95% CI -2.43 to 3.66, p = 0.68). The PPOS subscales also did not differ significantly post intervention [Sharing Subscale 41.33 at baseline vs. 40.50 after the intervention, 95% CI -2.98 to 1.31, p = 0.42; Caring Subscale 42.44 at baseline vs. 43.89 post, 95% CI -0.27 to 3.16, p = 0.09]

An initial disease-centred/clinician-centred score, which is indicated by a low score on the PPOS, was moderately associated with having a larger change towards a patient-oriented approach post workshop,  $r_s$ = -0.531,p = 0.023 . Therefore, the workshop might have had a larger impact on those with an initially disease-centred or clinician-centred orientation. Those who had a clinician-led orientation in the PPOS post workshop continued to be associated with strong biomedical attitudes and beliefs towards assessing pain after the workshop,  $r_s$ = -0.747, p < 0.001; observed through little change in their PABS scores.

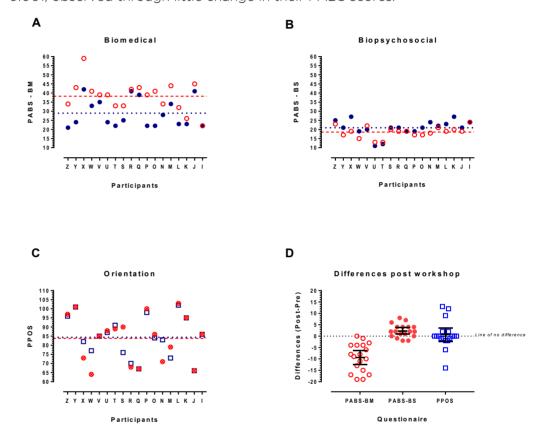


Figure 3: The analysis of individual data points for PABS and PPOS. In the top two graphs, scatter plots of individual pre  $(\mathbf{0})$  and post  $(\mathbf{0})$  data points for each PABS questionnaire sub-scale are indicated. Each red and dark blue broken line reports the pre-workshop and postworkshop means, respectively. A: The pre-workshop mean score of participants became less biomedical post workshop, from 38.3 to 28.9. B: The biopsychosocial score of participants increased post workshop. from 18.6 to 20.1. The bottom left-hand graph reports the PPOS and the bottom right-hand graph reports change data for each questionnaire. C: The PPOS pre workshop mean data of 83.7(---) shows no change post workshop at 84.4 (···), individual PPOS data points are ⊗ preworkshop and □ post-workshop. D: There is a distinct difference post workshop for both PABS change scores with a decrease in biomedical beliefs (PABS-BM) and increase in biopsychosocial (PABS-BS) attitudes (PABS-BM: mean -9.33, 95% Cl: -12.41, -6.26; PABS-BS: mean 2.33, 95 % CI: 0.90, 3.77; and no change in previous patient or practitioner orientation, PPOS: mean 0.61, 95% CI:-2.44, 3.66)

## WORKSHOP METHOD EVALUATION

The clinicians (n = 14) described their overall satisfaction with the workshop as 'excellent' (at 69%) or 'good' (at 32%). There was a large overall increase in understanding and confidence in applying self-management and coping skills reported across all items in the workshop evaluation. They reported they were 'more familiar with pain and psychosocial contributors to the experience and impact of pain'; completely met (89%), partially met (11%). They also 'learnt some pain coping skills that I could teach my patients'; completely met (82%), partially met (18%).

## **DISCUSSION**

The results of this study suggest a significant shift towards a biopsychosocial approach in assessing chronic pain in older adult patients in naïve hospital clinicians. The shift also occurred with a significant reduction in the strength of biomedical attitudes following participation in the PIP workshop. Overall, the PABS indicated that the content delivery was successful in changing clinicians' pain attitudes and beliefs. Yet, the PPOS revealed that this did not necessarily show an overall change in type of orientation in the clinicians, who remained only moderately patient-centred. Hence, the study results in combination suggest that separate elements might explain why pain education in isolation is not enough to facilitate change in clinical practice.

Our results from the PABS agree with the literature on pain education, that it is effective in changing the attitudes and beliefs of practitioners and patients alike (Abdel Shaheed et al. 2017; George et al. 2009). A recent systematic review by Gardner and colleagues (2017) showed that attitudes and beliefs, as assessed by the PABS, were correlated with therapist intervention, in that stronger biomedical beliefs were associated with biomedical treatment choices. Hence, it could be possible to assume, based on the results of the PABS alone, that the attitudinal change achieved in our clinicians would correlate with altered treatment behaviour.

Barriers to the pragmatic application of evidence-based treatment decision making by clinicians within their own scope of practice exist, despite their positive shift in attitudinal change. The same systematic review by Gardner and colleagues (2017) noted that the perceived likelihood of a patient effectively engaging in treatment directly affected the treatment selected by clinicians (Gardner et al. 2017). Other studies reported that physiotherapists who identified unhelpful attitudes and beliefs, or poor motivation, in their patients felt that they were working against those patients, and hence felt unable to continue with treatment (Jeffrey & Foster 2012). They were more likely to refer on to other health providers (Bond & Soundy 2012). The orientation of clinicians towards their patients is hence clearly an important factor in treatment decisions. This lack of change in our clinicians' orientation towards patients post workshop might indicate a persistent selection of biomedical treatment options for patients who are perceived as either reluctant to engage in self-management or unable to due to cognitive decline. Translation of education into clinical practice may hence depend on other factors far removed from education (Teodorczuk et al. 2013; Teodorczuk et al. 2009).

Two such factors could be the influence of years of experience and workplace culture. The orientation of student clinicians shifts towards a patient-centred approach after short sessions of education (Ross & Haidet 2011). In addition, when presented with low back pain patient vignettes post pain education, student physiotherapists are more likely to make return to work and exercise recommendations in line with best-practice guidelines (Domenech et al. 2011; Colleary et al. 2017). However, once students enter the workforce, their patient orientation significantly declines (Grilo et al. 2014). Furthermore, education on evidence-based practice provided to already practicing occupational therapists changed knowledge but had no impact on clinical behaviour (McCluskey & Lovarini 2005). Student attitudes, beliefs, orientation and hence practice can clearly be influenced by education. However, facilitating practice change in clinicians with many years of practice in a potentially biomedical and hence clinician-centred system may require a multifactorial approach (Teodorczuk et al. 2013; Teodorczuk et al. 2009), not just the education of clinicians working within it (McCluskey & Lovarini 2005; Overmeer et al. 2011).

Indeed, the translation of education into clinical practice has long been identified as a challenge in healthcare. Barriers such as lack of support, time constraints and organisational hierarchy are well documented (McKenna et al. 2004; Melnyk et al. 2012). To address these barriers, a variety of models have been proposed with a common theme of integrating researchers and research users in the generation and implementation of healthcare evidence (Flum et al. 2014; Gagliardi & Dobrow 2016; Mays et al. 2013). However, robust research involving the investigation and implementation of these models specific to geriatric care is scarce (Lourida et al. 2017). Importantly, it is even less frequent in the translation of geriatric pain research (Hadjistavropoulos et al. 2007; Abdulla et al. 2013; Schofield 2018). Hence, facilitating pain assessment and management practice change in clinicians working in geriatric care is an exciting and promising area for future research.

Our results indicate that the delivery of the intervention by a reputable expert was likely key for credibility of the intervention, as confirmed in the participants' feedback. Further anecdotal evidence from the feedback included the participants reporting increased confidence in identifying opportunities to use the skills they had learnt in their daily practice to address the more complex needs of older adult patients. Overall, the results should be interpreted with caution, as this was a feasibility study and a small proportion of the possible hospital staff within this site self-selected to attend.

This one-day workshop educational program introduced evidence-based principles of teaching pain self-management and coping skills to a vulnerable older person population with multiple comorbidities to interested but previously naïve (to PIP) hospital staff. This workshop style of education delivery was effective in shifting clinician attitudes and beliefs towards a more biopsychosocial viewpoint of pain. Local implementation strategies that might be considered include mentoring staff with newly acquired skills in practice or during case conferences

on older adults with chronic pain. Implementation strategies that could be further considered include partnering with older adult consumers and carers to develop information leaflets that empower them to request the assessment and treatment options for pain management. Avenues where this could be disseminated range from regular small-scale health promotion seminars at the hospital study site to larger scale consumer state-wide level initiatives.

It remains uncertain whether longer length workshops are more effective for implementing change in clinical practice (Overmeer et al. 2009; Synnott et al. 2015). Future research could investigate which mode of delivery of content might be most effective at ensuring a permanent change in practice in time-poor clinicians (Gibbs 2011). This could include comparing face-to face modules to online modules (Madaus and Lim 2016) and multi-modal approaches to professional learning and assessment. The most effective mode would ultimately assist the focus of in-practice educational resources for this area.

## CONCLUSION

A one-day structured educational program is feasible in providing foundational steps in implementing the concept of PIP in the geriatric rehabilitation setting. This program was sufficient to shift key therapist attitudes and beliefs towards a more biopsychosocial model of pain management in older adults, and to reduce the strength of their biomedical attitudes. It was not sufficient to significantly alter clinician orientation in the practitioner—patient relationship. Further support in the pragmatic application of knowledge acquired through educational workshops such as this one should be explored to evaluate the potential for effecting change in practitioner orientation in assessing chronic pain in the older adult.

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# Conflict of interests

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