

Prevalence and predictors of burnout symptoms in multidisciplinary pain clinics: a mixed-methods study

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Abstract

Frequent exposure to patient distress is associated with a higher prevalence of clinician distress and burnout. Patients with chronic pain often present with high levels of emotional distress. The current study examined the prevalence of burnout symptoms among a multidisciplinary sample of pain clinicians in Australia, the relationship between clinician confidence managing emotions and symptoms of burnout, and clinicians' perspectives on sources of stress and wellbeing at work. One hundred seventy-six clinicians from 58 multidisciplinary pain clinics across Australia completed a survey including the 22-item Maslach Burnout Inventory, a measure of clinician confidence managing patient emotions and their own emotions, and open-ended questions probing clinician perspectives on sources of stress and wellbeing at work. High levels of emotional exhaustion and depersonalisation were reported by 21.6% and 14.2% of respondents, respectively. These burnout symptoms were predicted by clinician confidence managing *their own* emotions. Low levels of personal accomplishment were reported by 18.8% of respondents and were predicted by clinician confidence managing *patients'* emotions. Consistent with these quantitative findings, qualitative data revealed that emotionally challenging patient encounters were common sources of stress. Working with a multidisciplinary team and supportive relationships with colleagues were commonly reported sources of clinician wellbeing. The results of this study are discussed in light of previous reports of burnout in pain medicine physicians. Implications for clinician training in pain management and the prevention of burnout in pain clinicians are discussed.

Keywords: Burnout, Multidisciplinary pain management, Emotions, Mixed methods, Australia, Chronic pain

1. Introduction

Caring for patients with chronic pain can be emotionally demanding for clinicians. In addition to pain and suffering, patients often express a range of negative emotions during a single consultation—from disappointment, sadness, anxiety, and fear to shame, frustration, and anger.¹⁷ Moreover, it is common for patients with chronic pain to disclose traumatic personal histories and significant life adversity.²⁸ Vicarious exposure to the pain, suffering, negative emotions, and trauma experienced by patients may give rise to feelings of sadness, frustration, guilt, and helplessness and distress in some clinicians.^{6,12,20,25} Hence, the emotional demands of pain management can be twofold: Clinicians may be challenged with responding to patients'

emotions or by regulating their own emotions in interactions with patients.

Clinicians (particularly medical specialists) are not necessarily provided with training to equip them to deal with emotionally challenging patient encounters. Research indicates that clinicians who lack confidence in their ability to identify and respond to patient emotions and their own emotions during challenging clinical encounters experience lower sense of efficacy, lower job satisfaction, and higher levels of distress.^{7,9,15,18,26} When clinician distress is unmanaged, it can impair clinicians' capacity to empathise with, build rapport with, and maintain the respect for patients.² The ability to connect with and maintain empathy for patients' emotions is important not only for patient satisfaction¹⁶ but also for the satisfaction and meaning that clinicians derive from health care.^{7,9,36}

If, as research suggests, clinicians who are less confident in their ability to manage emotionally challenging patient encounters experience a lower sense of efficacy, reduced capacity for empathy, and loss of meaning and satisfaction at work, they may be more susceptible to symptoms of burnout.^{8,22,36} Burnout symptoms include high levels of emotional exhaustion (feeling drained or having "nothing left to give"), depersonalization (diminished concerns for patient outcomes), and low sense of personal accomplishment.²⁴ A limited number of studies suggest that symptoms of burnout are prevalent among clinicians working in pain management. Studies of burnout among pain medicine specialists in the United States and Spain reveal high rates of emotional exhaustion (60.4% and 22.6%, respectively), depersonalisation (35.7% and 22.3%, respectively),

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and low sense of personal accomplishment (19.3% and 24.9%, respectively).^{19,31}

High levels of emotional exhaustion and depersonalization are associated with a higher incidence of clinician depression and suicidality, social withdrawal, intentions to quit, relationship disruption and divorce, and alcohol and drug misuse.¹ Clinician burnout also poses a significant risk to patients, predicting physician-reported errors, lower patient satisfaction, longer postdischarge recovery times, and a higher incidence of complications.^{13,29,35} Hence, for the wellbeing of both clinicians and their patients, it is crucial that we take steps to understand factors contributing to high rates of burnout in pain clinicians. The primary aim of the current study is to examine the prevalence of burnout among clinicians working in multidisciplinary pain clinics in Australia and explore clinician perceptions of factors contributing to their stress and wellbeing at work. Second, in consideration of the emotional demands of chronic pain management, we investigated whether clinician confidence in their ability to identify and manage patient emotions and their own emotions predicted clinician-reported symptoms of burnout.

2. Method

2.1. Design

A cross-sectional mixed-methods (quantitative and qualitative) study design was used. Survey data were collected from multidisciplinary pain clinics across Australia.

2.2. Ethical considerations

The study was granted ethical approval from the Human Research Ethics Committee of the Northern Sydney Local Health District (reference: RESP/18/221). To protect the identity and professional reputations of all participants, clinicians were not requested to provide identifying information (gender and location or name of the pain clinic). Survey data were collected anonymously online and stored on password-protected servers. Consequently, response rates were not definitively calculated. All clinical staff working at a multidisciplinary pain clinic were eligible to participate. Comprehensive study information was provided to all prospective participants, and consent to participate was implied by the completion of the survey.

2.3. Clinical setting

Multidisciplinary pain self-management is recommended as the starting point of chronic pain treatment.²⁷ Multidisciplinary pain clinics employ interdisciplinary teams of clinicians, including specialist pain medicine physicians, psychologists, physiotherapists, nurses, occupational therapists, and (less commonly) social workers and osteopaths. Clinicians working in multidisciplinary pain clinics (ie, pain clinicians) typically work together to provide patients with biopsychosocial approaches to pain management.

2.4. Procedure

A comprehensive list of multidisciplinary pain clinics in Australia (N = 97) was created using publicly available information from web sites of the Australian Pain Society (<https://www.apsoc.org.au/facility-directory>), Pain Australia (<https://www.painaustralia.org.au/getting-help/pain-programs/programs>), and the electronic Persistent Pain Outcomes Collaboration (ePPOC) (<https://ahsri.uow.edu.au/eppoc/participatingservices/index.html>). Additional clinics

were identified through internet searches. The clinic director, nurse unit manager, and/or general manager (contacts) of each clinic were contacted by email and invited to participate in the study themselves and forward the survey link to their clinical staff to complete at their discretion. Clinic contacts were asked to confirm the receipt of correspondence and indicate their willingness to pass on the survey link to their colleagues. Fifty-eight clinic contacts responded to the email, indicating that they forwarded the survey link to their clinic staff to complete at their discretion. The survey included 39 items in total, including 3 open-ended questions, and was estimated to take around 10 minutes to complete. Recruitment and data collection took place between April 2019 and August 2019.

2.5. Sample characteristics

One hundred seventy-eight clinicians opened the survey, 176 surveys were completed, and 58 multidisciplinary pain clinics reported participating in the survey. A frequency analysis of participant gender, years working in the field of pain management, clinical discipline, clinical setting (public vs private), and clinic geographic location (rural, regional, or metropolitan) is provided in **Table 1**.

Table 1

Sample characteristics.

Characteristic	n	%
Gender		
Female	99	56.3
Male	57	32.4
Prefer not to say	7	4.0
Unspecified	13	7.4
Role		
Physician	59	33.5
Psychologist	31	17.6
Physiotherapist	23	13.1
Nurse	23	13.1
Occupational therapist	13	7.4
Others	14	8.0
Unspecified	13	7.4
Work setting		
Public	100	56.8
Private	33	18.8
Public and private	30	17.0
Unspecified	13	7.4
Geographic area		
Metropolitan	133	75.6
Rural	29	16.5
Remote	1	0.6
Unspecified	13	7.4
Years working in chronic pain		
<5	59	33.5
5-10	55	31.3
11-20	24	13.6
>20	25	14.2
Unspecified	13	7.4
Employment type		
Full time	51	29.0
Part time	124	70.5
Unspecified	1	0.6

2.6. Measures

2.6.1. Symptoms of burnout

Symptoms of burnout were measured using the 22-item Maslach Burnout Inventory—Human Services Survey (MBI-HSS),²⁴ the most commonly used instrument for the assessment of burnout symptoms.³² Respondents rated the frequency with which they experience symptoms of burnout (emotional exhaustion, depersonalisation, and low personal accomplishment) on a 7-point Likert scale, with response options ranging from never (score of 0) to daily (score of 6). The emotional exhaustion (compassion fatigue) subscale includes 9 items (eg, “I feel used up at the end of the workday”; “I feel emotionally drained from my work”), the depersonalisation (cynicism) subscale includes 5 items (eg, “I’ve become more callous towards people since I took this job”; “I don’t really care what happens to some patients”), and the personal accomplishment subscale includes 8 items (eg, “I have accomplished many worthwhile things in this job”; “I feel I’m positively influencing people’s lives from my work”). Higher scores on the emotional exhaustion and depersonalisation subscales and lower scores on the personal accomplishment subscale indicate greater levels of burnout. We used established thresholds to indicate high levels of emotional exhaustion (summative scores ≥ 27) and depersonalisation (summative scores ≥ 10) and low levels of personal accomplishment (summative scores ≤ 33).²⁴

2.6.2. Confidence managing patient emotions

Five survey items measured clinician confidence managing patient emotions. Items were developed with guidance from an expert panel of psychologists and researchers with expertise in pain, empathic communication, and emotion regulation. The expert panel determined that the items had sound face validity and adequate coverage of evidence-based communication skills for reducing patient distress.⁵ Specifically, items probed clinician confidence in their ability to elicit, identify, and name patient emotions, provide praise, and support patients (see Appendix, Table S1, available at <http://links.lww.com/PAIN/B150>). Participants responded using a Likert scale of 0 (“not at all confident”) to 6 (“very confident”). Principal axis factoring using a direct oblimin rotation confirmed that the 5 items measured 1 component (for factor loadings, see Table S1, Appendix, available at <http://links.lww.com/PAIN/B150>). Cronbach’s alpha was high (0.83). Mean scores for self-reported confidence managing patient emotions were calculated based on all 5 items with a possible score range of 0 to 6.

2.6.3. Clinician confidence managing their own emotions

Five survey items measured clinician confidence managing their own emotions during challenging patient encounters. Items were developed with guidance from an expert panel of psychologists and researchers with expertise in pain, empathic communication, and emotion regulation. Items probed clinician confidence in their ability to recognize, explore, and understand their own emotional responses to patient behaviour, and their ability to regulate their emotions and maintain the respect for and rapport with patients (see Appendix, available at <http://links.lww.com/PAIN/B150>). Participants responded using a Likert scale of 0 (“not at all confident”) to 6 (“very confident”). Interitem correlations indicated that 2 items (recognising and understanding patient emotions) captured the same information (ie, were redundant, $r = 0.90$), so the “recognising emotions” item was omitted from further

analysis. Principal axis factoring using a direct oblimin rotation confirmed that 4 remaining items measured 1 component (for factor loadings, see Table S1, Appendix, available at <http://links.lww.com/PAIN/B150>). Cronbach’s alpha was high (0.80). Mean scores for self-reported confidence managing clinicians’ own emotions were calculated based on 4 items as provided in the Appendix, with a possible score range of 0 to 6 (available at <http://links.lww.com/PAIN/B150>).

2.6.4. Perceived drivers of stress and wellbeing

The survey included 3 open-ended questions about the advantages and disadvantages of working in multidisciplinary pain clinics (“What, if anything, do you enjoy about working in your particular pain clinic?”; “What, if anything, do you find challenging about working in your particular pain clinic?”; and “Describe the encounters that pose the biggest challenges to you”).

2.6.5. Demographic information

Respondents were asked to categorically describe their gender (male, female, prefer to self-identify, or prefer not to say), clinical discipline (physician, nurse, psychologist, physiotherapist, occupational therapist, others, or prefer not to say), years of experience in chronic pain management, the geographic location of the clinic they work in (metropolitan, rural, or remote), and the clinical setting (public hospital, private hospital, or private practice). In addition, participants reported whether they worked part time or full time, although they did not record the number of hours worked per week.

2.7. Data analytic technique

A frequency analysis was conducted to identify the number and percentage of participants meeting thresholds for high-level burnout symptom burden (high levels of emotional exhaustion and depersonalisation and low levels of personal accomplishment) and high levels of overall burnout. Between-group analysis of variance examined whether reported levels of overall burnout and individual burnout symptoms varied by participant gender, years working in the field of pain management, clinic location (rural, regional, or metropolitan), and clinic context (public vs private).

Intracluster correlations were calculated for each dependent variable to determine whether symptoms of burnout varied by clinic. All intracluster correlations were negligible (emotional exhaustion = 0, depersonalization = 0.04, and personal accomplishment = 0). Hence, analyses of associations between symptoms of clinician burnout, overall burnout, confidence managing patient emotions, and confidence managing clinicians’ own emotions did not take clinic-level clustering into account. Pearson correlations were calculated to examine basic associations between variables, and multiple linear regression was used to examine the relative contributions of (predictors) confidence managing patient emotions and confidence managing own emotions to (dependent variables) symptoms of clinician burnout and overall burnout.

Before beginning qualitative analysis, responses to each of the 3 open-ended questions were grouped to create 3 separate data sets. Early analysis revealed that responses to question 1 (“What, if anything, do you enjoy about working in your particular pain clinic?”) revealed factors contributing to clinician wellbeing at work (“Wellbeing factors”), and that responses to questions 2 and 3 (“What, if anything, do you find challenging about working in

your particular pain clinic?"; "Describe the encounters that pose the biggest challenges to you") revealed work challenges or "stress factors." One hundred sixty-two participants responded to question 1 (citing wellbeing factors), and 161 participants responded to question 2 or question 3 (citing stress factors).

Two researchers collaborated closely throughout the analysis to ensure rigour and reduce bias. Responses to the open-ended survey questions were analysed using an inductive approach to Braun and Clarke's³ procedure for thematic analysis. The first stage involved reading each response multiple times and noting initial coding ideas. This was followed by a more systematic process of line-by-line descriptive coding using NVivo 12 qualitative data analysis software. The initial codes were reviewed, and related codes were grouped into potential higher-order themes. The researchers then collaborated on an iterative process of reviewing themes. Throughout this process, some themes were merged, some were split into 2 or more separate themes, and others were abandoned. The themes and subthemes were each refined until both researchers agreed that the thematic structure accurately represented the data set. Frequency scores were generated for each theme, and exemplar quotes were selected. Frequency was calculated as the proportion of total respondents who referred to the theme in their response and was reported to demonstrate the prevalence of each theme across the data set.

3. Results

3.1. Prevalence of burnout symptoms

Of the 176 participants, 38 (21.6%) reported high levels of emotional exhaustion, 25 (14.2%) reported high levels of depersonalization, and 33 (18.8%) reported low levels of personal accomplishment. Descriptive statistics (mean, range, and SDs) for each dimension of burnout are reported in **Table 2**. As presented in **Table 3**, reports of emotional exhaustion and depersonalisation were highly correlated ($r = 0.60, P < 0.01$), and feelings of personal accomplishment were inversely related to emotional exhaustion ($r = -0.19, P < 0.05$) and depersonalisation ($r = -0.20, P < 0.01$).

As shown in **Figure 1**, 64 participants (36%) reported high scores on at least 1 dimension of burnout. Nineteen participants (10.8%) reported high levels of both emotional exhaustion and depersonalization, and 8 participants (4.5%) reported high scores on all 3 symptoms of burnout.

Levels of emotional exhaustion, depersonalisation, and feelings of personal accomplishment did not vary by clinician gender, clinical context (public vs private), or clinic location (rural, regional, or metropolitan). However, years of practice predicted levels of emotional exhaustion, and clinical discipline predicted levels of depersonalisation. Clinicians with 20+ years of practice reported significantly lower levels of emotional exhaustion than clinicians with less than 20 years

of experience (means <5 years = 20.6, 5-10 years = 20.9, 10-20 years = 22.9, and 20+ years = 14.8), and physicians reported higher levels of depersonalization than allied health (AH) professionals (means physician = 6.1 and AH = 4.2) (**Table 4**).

Notably, 71% of participants indicated that they worked part time in a tertiary pain clinic, although it is not known how many hours these participants work in their pain clinic, nor whether they work part time in another role when not at the pain clinic (eg, as a nurse or anaesthetist with the acute pain service or as a physiotherapist or physician in a rehabilitation unit or clinic).

3.2. Associations between clinician-reported emotion-handling skills and symptoms of burnout

One hundred sixty-eight participants completed measures of emotion-handling skills. Clinician-reported confidence managing patient emotions ($M = 5.1, SD = 0.71, \text{range} = 2-6$) were highly correlated with confidence managing their own emotions ($M = 4.8, SD = 0.84, \text{range} = 2-6; r = .61, P < 0.001$). Both clinician confidence managing patient emotions and clinician confidence managing their own emotions were significantly correlated with each symptom of burnout (**Table 3**). However, when both variables were included in multiple regression analyses as predictors (together with demographic covariates), only clinician confidence managing their own emotions remained as a significant predictor of emotional exhaustion and depersonalisation, whereas clinician confidence managing patients' emotions remained a significant predictor of personal accomplishment (**Table 5**). The unique proportion of variance (r_p^2) in emotional exhaustion and depersonalisation accounted for by clinician-reported confidence managing their own emotions was 2.4% and 12.2%, respectively, whereas confidence managing their own emotions accounted for 3.2% of variance in feelings of personal accomplishment.

3.3. Clinician-reported factors contributing to work-related stress and wellbeing

Thematic analyses revealed 5 primary domains of work-related stress and/or wellbeing: patient factors, interactions with patients, interactions with colleagues, organizational characteristics, and systemic factors. Clinicians revealed common sources of stress and/or wellbeing within each of these domains, as described below (**Table 6**).

3.3.1. Patient factors

3.3.1.1. Psychosocial complexity

Patient complexity was identified as both a source of wellbeing (23% of responses) and a source of stress (39% of responses; **Table 6**). On the one hand, respondents reported that they find the psychosocial and clinical complexity of patients interesting, challenging, and intellectually stimulating, as well as presenting opportunities for creativity, problem solving, and novelty. For example, a physician (female, tenure 5-10 years) responded that she "learns something new most of the time"; a nurse (female, <5 years) wrote "every day is a new day with the patients. Never dull"; and a physiotherapist (female, 5-10 years) reflected that she enjoys "the complexity of the work (although not always enjoyed!); every case is interesting, different, and thought provoking."

Table 2
Clinician burnout scores.

Dimension (score range)	Mean (SD)	Number high or low* (%)
Emotional exhaustion (0-54)	19.3 (10.2)	38 (21.6)
Depersonalisation (0-30)	4.7 (5.2)	25 (14.2)
Low personal accomplishment (0-48)	38.3 (8.2)	33 (18.8)

* High levels of emotional exhaustion = scores ≥ 27 ; high levels of depersonalisation = scores ≥ 10 ; and low levels of personal accomplishment = scores ≤ 33 .

Table 3
Pearson correlation between burnout scores and emotion-handling scores.

Measure	1	2	3	4	5
1. Emotional exhaustion	1				
2. Depersonalisation	0.61‡	1			
3. Personal accomplishment	-0.19*	-0.20‡	1		
4. Confidence managing patient emotions	-0.18*	-0.29‡	0.29‡	1	
5. Confidence managing own emotions	-0.27‡	-0.49‡	0.30‡	0.61‡	1

* $P < 0.05$.
 † $P < 0.01$.
 ‡ $P < 0.001$.

On the other hand, respondents also reported finding work with complex patients to be a significant source of stress (describing working with complex patients variously as “difficult,” “frustrating,” and “overwhelming”). Respondents identified a range of psychosocial barriers to treatment as challenging, including “severe depression, helplessness, very low self-efficacy, and rigid thinking” (physiotherapist, female, <5 years) and “very low SES backgrounds, [frequent] [domestic] violence, sexual abuse, and access issues due to [very limited] finances are difficult to address in a largely medical model system” (occupational therapist, male, 11-20 years). Other respondents pointed out that opioid dependence introduced additional complexity to patient care and was a significant source of frustration, as patients “seemingly engage only in order to continue opiate addictions” (psychologist, female, <5 years) and “use opioids to cope with emotional pain and refuse other [nonpharmacological] support” (physician, female, >20 years).

3.3.1.2. Patient outcomes

Patients’ treatment outcomes were also identified as both a source of wellbeing and a source of stress. Indeed, patient outcomes were the most common theme identified by respondents (40%, **Table 6**) as a source of wellbeing at work. Respondents expressed gratitude that they were able to “make a difference” to patients’ lives. Helping patients to manage pain,

build self-efficacy, and improve their quality of life was rewarding for clinicians, giving them a sense of meaning and purpose. One psychologist (female, <5 years) wrote, “The client work is very rewarding; supporting clients to achieve their goals and re-engage in valued activities in life despite their pain, experience a decrease in pain and gain more confidence.” This sentiment was echoed by a physician (male, >20 years): “I believe that I have helped so many patients understand and deal with their pain issues often in a way that they have never come across before. I can offer many a realistic sense of hope.”

At the same time, a small number of respondents (12%; **Table 6**) reported being discouraged by patient outcomes, citing limited treatment gains (eg, “Not seeing progress in many patients”; physician, male, >20 years) and limited treatment options (eg, “I find the lack of solutions for these difficult patients frustrating; nurse, female, 8 years). Respondents also described feelings of helplessness (eg, “Sometimes feeling like I can’t help my patients and relieve their pain”; physiotherapist, female, 10 years) and inefficacy (eg, “Spending a lot of time and effort with clients and sometimes seeing little benefit to them”; physiotherapist, female, <5 years).

3.3.2. Clinician–patient interactions

3.3.2.1. Clinician–patient rapport

A small number of respondents (3%; **Table 6**) reported enjoying the time they spend interacting with their patients (eg, “Rewarding to engage with patients/families; physician, gender unspecified, 10 years) and the therapeutic alliance that develops over time (eg, “Connecting with people—the patients and their stories”; physician, male, >20 years).

3.3.2.2. Emotionally challenging encounters

For the most part, however, respondents described their interactions with patients as a source of stress. Thirty-six percent of respondents described their interactions with patients as emotionally challenging for 2 reasons. First, many respondents described discomfort interacting with patients expressing negative emotions. For example, “patients who are angry aggressive or abusive/belittling” (physician, female, <20 years) or “rude and aggressive” (nurse, female, <5 years). As one psychologist (female, <5 years) explained, “Pain patients can experience difficult emotions (eg, anger) which at times can impact on [clinician–patient] interactions.”

Second, respondents described the challenge of managing their own emotional wellbeing following encounters with patients, particularly those with traumatic personal histories (eg, “Patients with chronic pain often have complex lives and families etc which

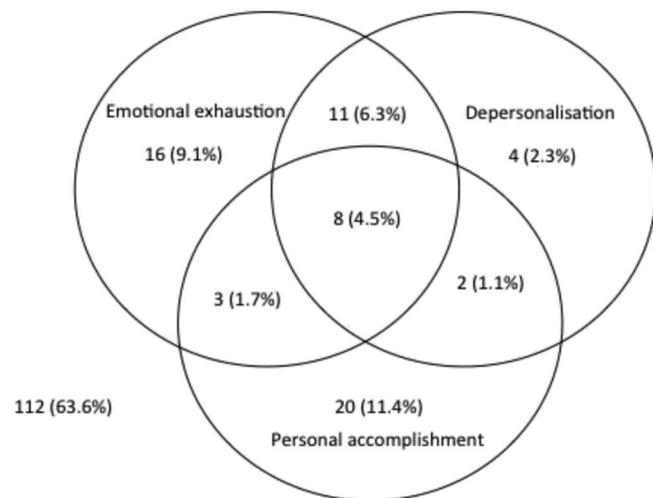


Figure 1. Venn diagram representing the proportion of pain clinicians reporting symptoms of burnout above threshold levels. High levels of emotional exhaustion = scores ≥ 27 ; high levels of depersonalisation = scores ≥ 10 ; and low levels of personal accomplishment = scores ≤ 33 .

Table 4
Differences in burnout subscales by demographic characteristics.

	EE	D	PA
Gender	$F(2, 160) = 0.00, P = 0.999$	$F(2, 160) = 2.66, P = 0.073$	$F(2, 160) = 2.88, P = 0.059$
Years of practice	$F(3, 159) = 3.64, P = 0.014$	$F(3, 159) = 0.99, P = 0.395$	$F(3, 159) = 2.35, P = 0.074$
Public vs private	$F(2, 173) = 0.46, P = 0.633$	$F(2, 173) = 2.08, P = 0.128$	$F(2, 173) = 0.03, P = 0.967$
Metro vs rural	$F(1, 161) = 0.03, P = 0.876$	$F(1, 161) = 0.00, P = 0.960$	$F(1, 161) = 3.36, P = 0.069$
Physician vs allied health professional	$F(1, 161) = 0.05, P = 0.819$	$F(1, 161) = 5.29, P = 0.023$	$F(1, 161) = 0.47, P = 0.494$

we are also having to deal with and this can be exhausting”; discipline unspecified, female, <5 years). As one nurse (female, >22 years) pointed out, it is “very emotional work dealing with people who are suffering.” Some respondents reported feeling ill-equipped to manage emotionally challenging situations. For example, one physician (female, <5 years) indicated she would appreciate more “training and experience in trauma support and

psychological techniques” to help herself to cope with patient emotions.

3.3.2.3. Patient engagement

One of the most common sources of work stress identified by respondents (35%) was difficulty engaging patients (Table 6). A number of respondents reported feeling frustrated by or

Table 5
Results of multiple regression analyses: predicting (a) emotional exhaustion, (b) depersonalisation, and (c) personal accomplishment from clinician-reported confidence managing patient emotions and confidence managing their own emotions in interactions with patients while controlling for demographic variables.

	B	SE	β	T	P	Unique variance (r_p^2)
(a) Emotional exhaustion						
Managing patient emotions	-0.78	1.41	-0.05	-0.56	0.580	0.2%
Managing own emotions	-2.57	1.26	-0.21	-2.04	0.043	2.4%
Gender: female vs male	0.95	1.91	0.04	0.50	0.619	0.1%
Gender: female vs others	2.15	4.07	0.04	0.53	0.598	0.2%
Years of experience: <5 vs 5-10 y	-0.10	2.07	0.00	-0.05	0.960	0.0%
Years of experience: <5 vs 10-20 y	1.41	3.08	0.04	0.46	0.649	0.1%
Years of experience: <5 vs 20+ y	-6.17	2.32	-0.25	-2.66	0.009	4.1%
Private vs public	0.11	2.13	0.01	0.05	0.959	0.0%
Private vs both private and public	0.78	2.56	0.03	0.31	0.760	0.1%
Metropolitan vs rural/remote	-1.17	2.15	-0.04	-0.54	0.587	0.2%
Physician vs allied health professional	-0.26	1.90	-0.01	-0.14	0.890	0.0%
(b) Depersonalisation						
Managing patient emotions	0.08	0.64	0.01	0.13	0.901	0.0%
Managing own emotions	-2.92	0.57	-0.47	-5.11	0.000	12.2%
Gender: female vs male	1.29	0.87	0.12	1.49	0.140	1.0%
Gender: female vs others	-0.57	1.85	-0.02	-0.31	0.759	0.0%
Years of experience: <5 vs 5-10 y	0.47	0.94	0.04	0.50	0.618	0.1%
Years of experience: <5 vs 10-20 y	0.93	1.40	0.05	0.67	0.507	0.2%
Years of experience: <5 vs 20+ y	-1.17	1.06	-0.09	-1.11	0.270	0.6%
Private vs public	0.84	0.97	0.08	0.87	0.387	0.3%
Private vs both private and public	1.44	1.17	0.11	1.24	0.218	0.7%
Metropolitan vs rural/remote	0.20	0.98	0.02	0.21	0.837	0.0%
Physician vs allied health professional	-0.40	0.87	-0.04	-0.46	0.646	0.1%
(c) Personal accomplishment						
Managing patient emotions	2.00	0.77	0.23	2.59	0.011	3.2%
Managing own emotions	1.02	0.69	0.14	1.48	0.140	1.1%
Gender: female vs male	0.82	1.05	0.06	0.78	0.435	0.3%
Gender: female vs others	2.93	2.22	0.10	1.32	0.190	0.8%
Years of experience: <5 vs 5-10 y	-0.32	1.13	-0.02	-0.28	0.779	0.0%
Years of experience: <5 vs 10-20 y	-1.58	1.68	-0.07	-0.94	0.350	0.4%
Years of experience: <5 vs 20+ y	1.88	1.27	0.13	1.49	0.140	1.1%
Private vs public	-4.64	1.17	-0.37	-3.98	0.000	7.6%
Private vs both private and public	-4.43	1.40	-0.29	-3.17	0.002	4.8%
Metropolitan vs rural/remote	-1.54	1.18	-0.10	-1.31	0.191	0.8%
Physician vs allied health professional	0.51	1.04	0.04	0.49	0.623	0.1%

Table 6
Clinician-reported sources of clinician stress and wellbeing.

Domains	Wellbeing factors	%	Stress factors	%
Patient factors	Psychosocial complexity	23	Psychosocial complexity	39
	Patient outcomes	40	Patient outcomes	12
Clinician–patient interactions	Clinician–patient rapport	3	Emotionally challenging encounters	36
			Patient engagement	35
Interactions with colleagues	Working with other disciplines	37	Working with other disciplines	27
	Relationships with colleagues	28	Relationships with colleagues	11
Organisational factors	Culture of learning and development	14	Lack of resources	25
	Concern for clinician wellbeing	3	Workload	22
	Time with patients	2	Unsupportive management	5
			Lack of administrative support	4
Systemic factors			Inefficacy of the compensation system	10

% = percentage of respondents who reported this theme in their response.

Bolded themes are those reported by more than 20% of respondents.

* High levels of emotional exhaustion = scores ≥ 27 ; high levels of depersonalisation = scores ≥ 10 ; and low levels of personal accomplishment = scores ≤ 33 .

powerless to help patients who were described as not ready to change (eg, “Constantly trying to elicit behaviour change means pushing uphill a lot of the time”; physiotherapist, female, 5-10 years). Others reported finding it challenging “having to negotiate agreed goals of treatment against resistance to treatment advice” (physician, male, >20 years) and “dealing with patients who are not willing to participate in recommended strategies” (nurse, female, 10 years).

For many respondents, difficulty engaging patients (and maintaining patient engagement) was attributed to unmet patient expectations. Respondents reported that patients can have “firm beliefs about the type of treatment they should be receiving” (physiotherapist, male, <5 years) and can become angry when the clinician will not support what they want (physician, male, >20 years). Relatedly, respondents described challenges managing unrealistic treatment expectations. For example, “Patients who are looking for quick fixes are quite difficult and you are constantly dealing with their ‘fix me’ attitude” (nurse, female, 5-10 years) or “Expectations that a couple of sessions of input can bring about long lasting positive outcomes when their social milieu is so complex and often chaotic” (occupational therapist, male, 11-20 years).

3.3.3. Interactions with colleagues

3.3.3.1. Working with other disciplines

A key feature of working in a multidisciplinary pain clinic is that clinicians work in an interdisciplinary team. Working with other disciplines emerged as both a significant source of wellbeing (37%) and a significant source of stress (27%) for clinicians (Table 6). Many respondents described appreciating the opportunity to learn from others and recognized the value in combining their skills and experience to arrive at the most optimal treatment approach for patients (eg, “I like learning from the clinicians around me and being exposed to many different people, personalities and skills. I like being able to walk down the corridor and call on someone else’s expertise if I need”; physiotherapist, female, 10 years). Others, particularly respondents identifying as AH professionals, reported experiencing disharmony due to conflicting approaches to pain management (eg, “Getting other members of the patients’ treating team on board with a less biomedical approach”; psychologist, male, <5 years) and a felt lack of mutual respect. For instance, one

respondent (occupational therapist, male, 11-20 years) observed that “The patriarchal model occasionally slips in where medical staff direct experienced AH staff to take on patients and treat [them] in a particular way because they are doctors and they know what’s best for the patient, which can seem disrespectful to the expertise that AH staff have and bring to the team.”

3.3.3.2. Relationships with colleagues

Relatedly, relationships with colleagues were reported as both a source of wellbeing and a source of stress for clinicians. Twenty-eight percent of respondents attributed their wellbeing at work to the respect and support they receive from their team. As one physician (female, 11-20 years) wrote, “Our team is exceptional. The majority of the staff are all on the same page and care for each other. We all celebrate together when we have a positive outcome, progressed the service or seen a patient blossom. Our admin team work hard to support the clinicians and vice versa.” By contrast, 11% of respondents reported that “difficult” or “rude” colleagues contributed to work stress, “making life difficult for everyone” (physician, female, <5 years).

3.3.4. Organisational factors

3.3.4.1. Culture of learning and development

Fourteen percent of respondents (Table 6) reported that they value working in an innovative and ambitious professional environment (eg, “We have an atmosphere of innovation and wanting to be proud of what we can improve and make our work life better for us and for patients”; physician, female, 11-20 years), where they are given opportunities to develop themselves professionally (eg, “Great culture of learning and professional development”; nurse, female, <5 years) and engage in a variety of tasks (“The opportunity for some research/professional development/presenting in addition to clinical work”; physiotherapist, female, 5-10 years).

3.3.4.2. Leadership concern for clinician wellbeing

A small number of respondents (3%) reported that leaderships’ concern for clinician wellbeing helped them to feel safe and supported. For example, “Our team leader [cares] about our wellbeing and maintenance of boundaries” (physiotherapist, female, 5-10 years).

3.3.4.3. Time with patients

Two percent of respondents reported appreciated having longer appointment times with patients to “assess patients properly” (physician, female, <5 years) and problem solve (eg, “not 10 minutes [like] when I was a GP”; physician, male, 5-10 years).

3.3.4.4. Lack of resources

Many respondents (25%, **Table 6**) reported feeling stifled by a lack of resources including spaces to work (eg, “constant fighting to justify use of space, rooms”; discipline unspecified, female, <5 years), staff appointments (eg, “too many referrals and not enough staff. Patients desperately calling for appointments”; nurse, female, 5-10 years), and/or a lack of equipment for procedures at their pain clinic (physician, female, 5-10 years). As one nurse (female, <5 years) observed, “Our resources are limited, and often this poses barriers to meeting the needs of patients, which is frustrating to both us and them.”

3.3.4.4. Workload

Respondents commonly (22%) reported feeling overwhelmed by their workload, particularly because of burdensome administrative requirements, leading to long hours and poor work/life balance. As one physician (female, <5 years) wrote, “Non-clinical work is not factored into our day. It is expected that we do non-clinical work time in our own time” (physician, female, 4 years). In turn, excessive workload reportedly led to feelings of personal failure and inefficacy. As one psychologist (male, 5-10 years) wrote, “I feel that I am letting others down when I’m overworked: not enough time, not efficient enough, over-committed, not good enough.”

3.3.4.5. Unsupportive management

A small number of responses described a lack of managerial understanding of the complexity of pain management (psychologist, female, 5-10 years), a lack of support for quality improvement (physician, gender unspecified, 5-10 years), and a lack of consultation with staff in implementation of change (psychologist, female, 5-20 years) as a significant source of stress, limiting their ability to thrive at work.

3.3.4.6. Lack of administrative support

A small number of responses (4%) indicated that “inadequate administrative support” (physician, female, 5-10 years) and ineffective “planning and organisation of consults and procedures” (physician, male, >years) were a significant source of stress.

3.3.5. Systemic factors

3.3.5.1. Inefficacy of the compensation system

Ten percent of respondents reported frustration at the healthcare compensation system. Many described the system as burdensome for both themselves and their patients, particularly because of red tape and the amount of paperwork involved (eg, “Administrative load is high with compensable patients”; discipline unspecified, male, <5 years), whereas others felt a lack of cooperation from insurers often compromised their patients’ treatment (eg, “The compensable organisation preventing us from making progress with patients”; physician, male, >20 years).

4. Discussion

4.1. Prevalence of burnout

Our results indicate that approximately 1 in 5 clinicians working in multidisciplinary pain management clinics in Australia experience high levels of emotional exhaustion and low levels of personal accomplishment, and approximately 1 in 7 clinicians experience high levels of depersonalisation. The prevalence of burnout symptoms among pain clinicians in Australia is concerning on many levels. As the population of Australia (and across the world) ages, the prevalence of chronic pain will undoubtedly increase and, in turn, so too will the demand for pain clinicians. To meet this demand and provide optimal care for these patients, it is imperative that clinicians are not only willing but also able to meet the demands of caring for patients with complex chronic pain. High levels of burnout are associated with a higher incidence of depression and suicidal ideation among clinicians, higher rates of sickness and absenteeism, poorer communication of empathy and compassion, and increased errors.^{1,29} Clearly, patient care and patient outcomes in chronic pain depend on the prevention of clinician burnout and promotion of clinician wellbeing.

4.2. The potential benefits of working in multidisciplinary teams

Multidisciplinary pain clinics are a unique clinical context in which a team of healthcare professionals (including specialist pain medicine physicians, psychologists, physiotherapists, nurses, and social workers) collaborates to provide “whole-person,” biopsychosocial care to the person living with persistent pain. Thirty-seven percent of respondents reported that being part of a multidisciplinary team was a source of wellbeing, providing them with opportunities to learn from others and to provide support to and be supported by colleagues. In this context, the responsibility for treatment decision-making and ongoing patient care is shared, and it is common for clinicians to convene to discuss particularly complex cases or share strategies for engaging patients who may be reluctant to accept treatment advice. By contrast, pain medicine physicians who practice completely autonomously (ie, as interventional pain physicians) have more limited opportunities to discuss complex cases, to seek different perspectives from colleagues, to debrief after emotionally challenging patient encounters, or to learn new pain management strategies from colleagues from other disciplines.

It may be that clinicians who care for patients with chronic pain in a multidisciplinary team setting are less likely to experience burnout symptoms than those who are primarily working alone. Clinicians in our study working in multidisciplinary teams reported a substantially lower prevalence of burnout symptoms compared with interventionist pain physicians in the United States who typically work relatively autonomously (60.4% high emotional exhaustion and 35.7% high depersonalisation).¹⁹ It is possible that the lower prevalence of burnout symptoms reported in the current study reflects the smaller proportion of pain medicine physician respondents (34% identified as pain medicine physicians; 66% identified as AH professionals or “other”). On the other hand, although pain medicine specialists in the current study reported higher levels of depersonalisation than AH professionals, there were no differences between levels of emotional exhaustion and sense of personal accomplishment across disciplinary groups.

Clinicians in this study were of the opinion that working in a multidisciplinary team was protective against stress. However, interprofessional relationships are not always easy,⁷ and

respondents pointed out the importance of mutual respect between colleagues across disciplines, both internal and external to the clinic. It is likely that the wellbeing benefits of working in multidisciplinary teams depend on the ease of communication between group members, good working relationships, individuals' sense of belonging, and team cohesion.^{7,23,33,39,40} Consistent with this, a variety of interventions aimed at improving interprofessional communication, peer support, team civility, and work relationships have been found to be effective in reducing burnout symptoms among clinicians.^{34,38} Outside of the sphere of health care, many more interventions to improve team functioning have been developed and found to be highly effective,^{21,23} offering enormous scope for research into the efficacy of team-based interventions for the prevention and reduction of burnout symptoms in pain clinicians.

4.3. Clinician confidence managing emotions

We found that both clinician confidence managing their own emotions and patient emotions were associated with symptoms of burnout. However, further analysis revealed that emotional exhaustion and depersonalisation were associated with clinician confidence managing their *own* emotions, in particular, while sense of personal accomplishment as related to confidence managing patient emotions. These findings are consistent with the results of a large-scale survey conducted with 7584 practicing physicians in the United States, which found that physicians who have difficulty identifying and regulating *their own* distress in response to patient emotions are more prone to emotional exhaustion and detachment, whereas physicians who are better able to identify and understand patient emotions (ie, engage in empathic perspective taking) derive greater satisfaction and pleasure from their work.¹¹

In response to open-ended questions regarding perceived sources of stress and wellbeing, clinicians frequently identified difficulties managing their own negative emotions in interactions with patients and colleagues as a core challenge underpinning their work in the pain clinic. Clinicians were faced with several different types of emotionally challenging encounters: exposure to others' trauma and pain, feelings of helplessness to treat patients' pain, frustration associated with difficulty engaging patients with self-management advice, conflict with colleagues about approaches to pain management, stress associated with balancing clinical and administrative work, guilt associated with long waitlists, limited effectiveness of treatments, and lack of resources to meet patient demands.

In consideration of the diverse emotional challenges identified by a large proportion of clinicians working in multidisciplinary pain clinics, it is not surprising that clinicians who reported greater confidence managing their own and patients' emotions reported fewer symptoms of burnout. Our findings point to the potential for training programs aimed at improving clinician confidence managing emotions to help prevent or reduce symptoms of burnout among pain clinicians, although further research is needed to investigate the merits of this approach. The results of extant research into the impact of improving clinicians' skills identifying and responding to *patient* emotions on burnout symptoms are mixed, some reporting benefit³⁰ and others reporting no effect.⁴ By contrast, meta-analyses find that interventions aimed at helping clinicians to manage their *own* emotions (eg, stress management programs, mindfulness, and small group debriefing sessions) can be effective in reducing symptoms of emotional exhaustion and depersonalisation.⁴¹ Hence, although there is certainly merit in conducting further

research into the impact of emotion-focussed communication skills training on clinician wellbeing, converging evidence points to the importance of providing clinicians with training to improve their confidence to manage their *own* emotions to prevent or reduce burnout in pain clinicians.

4.4. Complex patients can be a source of stress or wellbeing

Qualitative analysis of the open-ended responses indicated that patient complexity is experienced as a stress factor by some clinicians and is experienced as a wellbeing factor by others. Although many described the complexity of patients with chronic pain as intrinsically motivating (ensuring novelty, intellectual stimulation, opportunities to learn, and collaboration with colleagues), others reported feeling overwhelmed by it. Consistent with the work of Lazarus et al.,^{10,20,37} this suggests complex patients are not inherently stressful, but that it is the clinicians' appraisal of this complexity that determines clinicians' experience of caring for patients with chronic pain. Future studies could explore factors that may account for the differences in clinician responses to patient complexity. Our hypothesis would be that clinicians' ability to manage their own as well as patients' emotions influences the appraisal of patient complexity, and the meaning, satisfaction, and feelings of accomplishment that clinicians derive from working with complex patients.

4.5. Limitations

There are a number of limitations to this research that should be acknowledged. First, we estimate that our response rate was approximately 30% based on the estimated number of pain clinicians working in multidisciplinary pain clinics in Australia (≥ 582 based on an average of 6 clinicians per clinic \times 97 clinics) and the total number of respondents in our survey (179 = $\geq 30\%$). Although our response rate was acceptable, the possibility remains that sampling was nonrandom and that responders are more or less burnt out than nonresponders. Studies are yet to identify whether nonresponders are more or less burnt out than responders in surveys of clinician burnout. This may be a useful avenue for future research.

Second, it is important to recognise that the sources of stress and wellbeing reported reflect only those issues that were most salient to respondents at the time of survey. There may be many additional factors contributing to clinician stress and wellbeing that were not mentioned simply because they were not "top of mind." Hence, although we have provided an analysis of how frequently each theme was raised by respondents, these frequencies provide only an indication of how *salient* they are to clinicians as sources of stress and wellbeing, not how prevalent they are, or the extent to which they really contribute to day-to-day stress and wellbeing. For example, many clinicians reported patient anger and aggression as a key source of stress. However, as Henry and Holt¹⁴ point out: "Only a small number of interactions with patients on long-term opioids involve overt conflict (eg, patients shouting or threatening staff), but these leave a lasting impression and can condition staff to approach every such interaction as a potentially combative one."

Third, items measuring clinician confidence managing patient emotions and clinicians' own emotions were designed for the current study in the absence of validated, brief scales capturing these constructs, specifically. Future research will be needed to further develop and validate these measures of clinician confidence identifying and responding to patient emotions and their own emotions during challenging patient encounters.

Finally, it should be emphasized that the use of cross-sectional and qualitative methods precludes us from drawing conclusions about the *causes* of burnout symptoms in pain clinicians. We can only conclude that clinician confidence managing emotions are associated with burnout symptoms in clinicians working in multidisciplinary pain clinics, and furthermore, that clinicians perceive certain factors such as emotionally challenging patient encounters, psychosocial complexity, and difficulty engaging patients as a source of stress. As the direction of causality is unknown, it is also possible that the reverse could also be true, namely, that clinicians express lower confidence in their ability to handle patient emotions as well as their own emotions because they are experiencing burnout.

5. Conclusion

Symptoms of burnout are prevalent among pain clinicians working in multidisciplinary pain clinics in Australia. Converging results from quantitative and qualitative data indicate that clinicians lacking confidence managing emotions (both patient emotions and their own emotions) are more likely to report symptoms of burnout, while supportive relationships with colleagues and working in a multidisciplinary team setting may contribute to clinician wellbeing. Our findings point to the importance of providing clinicians with training to enhance their confidence managing emotions in interactions with patients and underline the benefits of working in cohesive teams.

Conflict of interest statement

The authors have no conflicts of interest to declare.

Appendix A. Supplemental digital content

Supplemental digital content associated with this article can be found online at <http://links.lww.com/PAIN/B150>.

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