

Research

Physiotherapists' views about providing physiotherapy services to people with severe and persistent mental illness: a mixed methods study

Eleanor Andrew ^a, Kathy Briffa ^a, Flavie Waters ^{b,c}, Samantha Lee ^a, Robyn Fary ^a

^aSchool of Physiotherapy and Exercise Science, Curtin University; ^bClinical Research Centre, Graylands Campus, North Metropolitan Health Service Mental Health; ^cSchool of Psychiatry and Clinical Neurosciences, University of Western Australia, Perth, Australia

KEY WORDS

Physiotherapy
Physical therapy
Severe mental illness
Mental health
Physical activity



ABSTRACT

Questions: What perceptions do physiotherapists have about their role in managing the physical health of people with severe and persistent mental illness (SPMI)? What are the barriers to treating physical health conditions in this clinical population, and what enablers may improve access to physiotherapy services?

Design: Mixed-methods research design combining focus groups, interviews and an online survey.

Participants: Eighty-eight Australian registered physiotherapists: 31 in the focus groups and interviews (mean age 32 years, 68% female) and 57 in the survey (mean age 38 years, 86% female). **Methods:** Focus groups and interviews explored participants' understanding of mental illness; their role in managing the physical health of people with SPMI; and the barriers and enablers to service delivery. Key themes were derived using an inductive approach. The survey was used to determine physiotherapists' attitudes and knowledge regarding mental illness; perceived role of physiotherapy in mental health; and need for professional development in the mental health area. Participant characteristics and survey information were analysed using descriptive statistics. **Results:** Qualitative and quantitative results were confirmatory. Participants indicated that physiotherapists can play a role in the management of physical health conditions in people with SPMI. Participants also stated that such treatment was part of their job, given the extensive evidence that physiotherapy interventions are effective for the comorbidities that are common among people with SPMI. Barriers included: limited education about and confidence in how to manage people with SPMI; health system structure; and stigmatisation of people with SPMI. **Conclusion:** Physiotherapists are ideally poised to become leaders in managing the physical health of people with SPMI. To improve the physical health in this important yet overlooked population, it is recommended that: physiotherapists take up general mental health training opportunities; undergraduate physiotherapy education increases content in this clinical area; physiotherapy-specific professional development opportunities are developed further; and health system barriers are addressed. **[Andrew E, Briffa K, Waters F, Lee S, Fary R (2019) Physiotherapists' views about providing physiotherapy services to people with severe and persistent mental illness: a mixed methods study. *Journal of Physiotherapy* 65:222–229]**

© 2019 Australian Physiotherapy Association. Published by Elsevier B.V. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

Introduction

Disorders such as schizophrenia spectrum disorders, bipolar disorder, and major depression are typically labelled as 'severe and persistent mental illnesses' (SPMI)^{1–3} because they are often associated with recurrent and persistent symptoms that have an overpowering influence on a person's social, occupational and personal function.^{1,2} Most people with SPMI have poor physical health and high rates of comorbid health conditions (such as respiratory and cardiovascular disease, diabetes and obesity).^{1,4} People with SPMI are two to three times more likely to have cardiovascular disease, have higher prevalence of metabolic syndrome, and have an estimated 15 to 25 year shorter life expectancy compared with the general population.^{5,6} This poor physical health is a result of both the mental health condition itself and the use of antipsychotic medications,

which are associated with metabolic and endocrine abnormalities.⁷ Lower socio-economic status and unhealthy lifestyles (such as high rates of smoking, substance use, obesity and a lack of physical activity) also contribute to poor physical health outcomes.^{4,8}

The Australian Physiotherapy Association (APA) position statement on mental health and physiotherapy states that physiotherapists are well trained in managing the musculoskeletal and cardiorespiratory conditions that are common among people with SPMI.⁹ Despite this, evidence suggests that people with SPMI are not accessing or utilising physiotherapy services for management of their physical health problems.^{9,10}

Recently, the barriers and enablers to accessing physiotherapy services by people with SPMI have been explored from the perspectives of mental health professionals (mental health nurses, social workers, occupational therapists and psychologists) and people living

with SPMI.¹¹ Both groups of participants in that study identified that a key barrier was a lack of awareness and understanding about the role and scope of physiotherapy in mental health. In addition, they revealed a need for better education about the role and benefits of physiotherapy, clearer referral pathways, and reduced costs for people on a pension. The participants were also unclear about physiotherapists' knowledge about mental health, and confidence in being able to manage people with SPMI.¹¹ The perspectives of physiotherapists in engaging people with SPMI were not addressed in that study and remain unexplored. It is important to understand the perceptions of physiotherapists about assessing, managing and treating people with SPMI, and to identify areas in which they may have concerns. The current research was undertaken to better understand physiotherapists' views, and enablers of and barriers to the provision of physiotherapy services for people with SPMI so that potential issues or professional development needs may be addressed.

The aim of this study was to determine factors influencing the provision of physiotherapy services to manage the physical wellbeing of people with SPMI from the perspective of the physiotherapist.

Therefore, the research questions for this mixed methods study were:

1. What perceptions do physiotherapists have about their role in managing people with SPMI?
2. What barriers do physiotherapists face when treating the physical wellbeing of people with SPMI and what enablers may improve provision of physiotherapy services?

Method

Design

A mixed-methods design including both qualitative and quantitative approaches was used. Qualitative data were collected through focus groups and interviews with physiotherapists. These research methods provide deeper understanding of the complex beliefs that participants hold.¹² Focus groups were chosen as the main method to collect data, because they promote discussion amongst participants and enhance the communication of strongly held beliefs and perspectives.¹² However, interviews were conducted where participants could not attend a scheduled focus group. Qualitative data were reported in accordance with the COREQ-32 checklist.¹³ Quantitative data were collected via an online survey. Surveys allow for specific types of answers and opinions to be collected, whilst complementing the focus of, and responses to, questions asked through qualitative methods.¹²

Participants

Physiotherapists were recruited for the qualitative component from the city of Perth and regional Bunbury (Western Australia) by word of mouth and by email snowballing through local physiotherapy networks. The survey component was advertised using the APA's email communication forum. There were no relationships between the researchers and the participants prior to commencement of the study. Participants were required to be a registered physiotherapist currently working as a physiotherapist in Australia. No exclusion criteria were implemented.

Qualitative component procedure

Focus groups and interviews took place between the 1 February 2018 and 30 June 2018 at the participants' places of work. Prior to commencement of data collection, the interviewer (EA) received training in qualitative research methods and analyses. An interview schedule of open-ended questions and follow-up prompts (Box 1, with a more detailed version available as Appendix 1 on the eAddenda) was then developed and pilot tested. The interview schedule allowed direct discussion about the research questions and to follow

Box 1. Stimulus questions used in the focus groups and interviews.

- What sorts of ideas come to you when you think about people with severe mental illness?
- Within your practice, what is your understanding of the role of physiotherapists in the treatment and management of someone with severe mental illness?
- Have you ever treated a patient with severe mental illness?
- Are there any things that might stop you from treating the physical health of this population?
- Can you suggest anything that may facilitate you treating these people?
- Has anyone got anything further to add such as questions they would like to touch on again or answers they have withheld?

other lines of questioning to explore unexpected information in more detail. Information was collected regarding age, gender, number of years as a physiotherapist, current primary area of professional practice, current area of work, and location of practice.

Emails containing recruitment flyers were specifically directed to physiotherapists from regional and urban areas, as well as from private practice and hospital settings in Western Australia to facilitate the inclusion of physiotherapists from a broad range of clinical environments. Recruitment continued until saturation (defined as no new information emerging from the final focus group and the final two consecutive interviews) was achieved. The recruitment process meant that not all participants had prior experience with people with SPMI, enabling an unfiltered perspective across the physiotherapy community and which might inform about workforce capacity-building. Physiotherapists who fulfilled the eligibility criteria and indicated interest in participation were given detailed information regarding the study and their role as participants. Participants were made aware that the researcher was an honours student studying at Curtin University. The duration of the focus groups ranged from 60 to 100 minutes and interviews 20 to 30 minutes. Each focus group and interview was audio-recorded using an iPad and transcribed verbatim. Each participant received a copy of the written transcript for verification and appropriate amendments were made if requested.

Quantitative component procedure

The Qualtrics platform was used for the web-based survey. The survey hyperlink took potential participants to an online welcome screen containing Curtin-branded information about the study. A link to the survey was included in the emails sent out to physiotherapists via the APA. Data analysis took place after the survey was closed.

The survey contained 16 close-ended, single-choice or multiple-choice questions designed to better understand how often physiotherapists provide services to people with SPMI; physiotherapists' attitudes and knowledge regarding SPMI; the perceived role of physiotherapy in mental health; and the need for professional development in the area of mental health. The survey took between 10 to 15 minutes to complete. The descriptive data that were collected included: age, gender, years of experience as a physiotherapist, primary area of professional practice, area of work, primary place of employment, location of employment, and prior experience working in a mental health setting. No identifying information was collected.

Data analysis

Qualitative data were analysed by the interviewer. Key themes and subthemes were derived from the focus groups and interviews primarily using an inductive approach. A component of deductive analysis was derived from our previous research.¹¹ Interview transcripts were independently analysed by a second researcher (RF) to

Table 1
Characteristics of focus group and interview participants.

Characteristics	Participants (n = 31)
Age (yr), mean (SD)	32 (11)
Gender, n female (%)	21 (68)
Clinical experience (yr), mean (SD)	10 (10)
State or territory of residence, n (%)	
Western Australia	31 (100)
Primary area of professional practice, n (%)	
cardiorespiratory	1 (3)
disability	1 (3)
intensive care	1 (3)
musculoskeletal	11 (35)
neurological	9 (29)
non-clinical	1 (3)
orthopaedics	1 (3)
rehabilitation	1 (3)
hospital ward rotations	4 (13)
women's health	1 (3)
Primary area of clinical work, n (%)	
inpatient	12 (39)
outpatient	18 (58)
not applicable	1 (3)
Place of primary employment, n (%)	
private practice (non-hospital)	18 (58)
public hospital (non-tertiary)	9 (29)
public hospital (tertiary)	3 (10)
university	1 (3)
Location of primary employment, n (%)	
regional	15 (48)
urban	16 (52)

confirm key themes that were identified and discuss conflicts where necessary. Key themes were further refined once consensus was established. Qualitative participant characteristics and all quantitative results were reported using descriptive statistics.

Results

Qualitative study

Thirty-one physiotherapists participated in either one of three focus groups (n = 20) or one of seven interviews with one or two participants (n = 11). Participant characteristics are presented in Table 1. The mean age of participants was 32 years and 68% were female. Areas of professional practice were diverse, including: musculoskeletal (36%) and neurological (29%) clinical areas; private practice (58%) and public hospital (29%) settings; and urban (52%) and regional (48%) locations.

No amendments to the focus group and interview transcripts were requested by participants and four key themes were identified. Themes and supporting quotes are summarised in Table 2.

Theme: Physiotherapist-specific barriers

In general, the physiotherapists who were interviewed expressed little confidence in their capacity to competently manage people with SPMI. Personal barriers limiting treatment of this population were classified into four subthemes.

Subtheme: Concerns about safety

Participants felt the behaviour of people with SPMI may pose some physical risks and compromise their safety or that of their colleagues and other patients. This theme was primarily a concern voiced by physiotherapists working in outpatient settings.

Subtheme: Limited knowledge and skill to manage people with SPMI

Participants acknowledged a lack of both theoretical knowledge and practical skills to manage people with SPMI. In particular, they identified a gap in knowledge regarding the disorders encompassed within SPMI, and appropriate management and communication strategies. This theme was attributed to a lack of training at both undergraduate and postgraduate levels.

Subtheme: Lack of understanding of the role of physiotherapists in the treatment of people with SPMI

When asked about their role in managing people with SPMI, many participants focused on patients presenting with pain and how that may be influenced by or may influence their mental illness. Participants also focused on the role of exercise in reducing symptoms of anxiety and fatigue. Overall, participants were uncertain of the role they could play in treating people with SPMI.

Theme: Barriers relating to people with SPMI

Despite the majority of participating physiotherapists having limited or no contact with people with SPMI, a number of barriers that may interfere with physiotherapy management were identified.

Subtheme: Characteristics and behaviours of people with SPMI

Participants reported that obstacles in providing effective treatment to people with SPMI could include motivation issues, manifesting in low attendance rates (especially for follow-up appointments), and poor adherence to home exercise programs. Participants also found communication with this population extremely hard, making it difficult to establish a rapport. Other beliefs were that people with SPMI might be 'unpredictable' or 'aggressive'.

Subtheme: Limited knowledge of the role of physiotherapy in physical health amongst people with SPMI

Participants believed that people with SPMI might have limited insight into their physical health conditions and limited awareness about how physiotherapy could be helpful. Participants identified this as having an impact on both access to physiotherapy services, as well as the clients' commitment to physiotherapy goals, and therefore treatment and management effectiveness.

Theme: Health system barriers

Structural barriers within the healthcare system identified by participants were categorised into three subthemes.

Subtheme: Referrals

The limited services provided to people with SPMI was perceived to be influenced by limited referrals from other health professionals. General practitioners (GPs) were identified as the main source of referrals. However, physiotherapists questioned whether GPs understood the relevance of physiotherapy intervention in this population.

Subtheme: Time and model of service delivery

The need for longer appointment times was identified because of the difficulties in building a rapport and communication with people with SPMI. A rigorous structure of appointments was identified as unsuitable for this population due to the commonality of missed appointments. Participants also reported that a likely reliance on public transport by people with SPMI is also a challenge to rigid appointment times.

Subtheme: Funding

Participants identified those people with SPMI as being more likely to be in a low socio-economic group. Therefore, while it may be possible to build the capacity to manage people with SPMI within the private sector, participants felt that the cost was likely to be prohibitive for them. There is limited availability for physiotherapy in the public sector due to limited funding. Limited funding was also reported to have resulted in a decrease in physiotherapy staff on mental health wards.

Theme: Enablers to improving access to physiotherapy services

Subtheme: Education of physiotherapists

Participants expressed the need for education in order to increase their capacity to treat people with SPMI. Increased knowledge about

Table 2

Themes, subthemes, and examples of supporting quotes derived from interviews and focus groups.

Theme: Perceived personal barriers attributed to physiotherapists
Subtheme: Concerns about safety of the practitioner and other patients <i>I have immense fear for my staff safety (P21)</i> <i>I think there would be situations where some other clients might not feel as safe (P24)</i> <i>You feel uncomfortable or scared to address them [people with SPMI] (P6)</i>
Subtheme: Limited knowledge and skill to manage people with SPMI <i>There is a bit of a gap in knowing how to increase their [people with SPMI] insight... and like how to get them to understand why it's important to engage and participate (P4)</i> <i>There's a distinct lack of training and our understanding of that [how to treat people with SPMI] and also our ability to communicate beyond what people have a natural affinity for doing (P28)</i>
Subtheme: Lack of understanding of the role of physiotherapists in the treatment of people with SPMI <i>I don't understand a lot about our role to be honest (P4)</i>
Theme: Perceived personal barriers attributed to people with SPMI by the physiotherapists
Subtheme: Characteristics and behaviour of people with SPMI <i>They can be quite difficult to treat, quite hard to motivate sometimes I find (P11)</i> <i>Difficult in terms of communication and developing rapport (P5)</i> <i>[People with SPMI have] unpredictable behaviour (P16)</i> <i>[People with SPMI are] people who are mumbling to themselves like almost that stereotypical kind of crazy (P7)</i>
Subtheme: Limited knowledge of the role of physiotherapy in physical health amongst people with SPMI. <i>I guess they [people with SPMI] just don't really know or can't seem to comprehend or connect our role I suppose and they just lack insight into what we are actually doing (P6)</i>
Theme: Health system barriers
Subtheme: Referrals <i>It probably won't even cross their [GPs] mind to refer to physio (P3)</i> <i>We don't know where we could send them and we don't ever get asked to refer them anywhere (P2)</i>
Subtheme: Time and model of service delivery <i>And time you know keeping appointments, health department again you miss your appointment and then you're off... and that sometimes doesn't work for these clients (P17)</i> <i>There might be transport issues as well coming to appointments because they are relying on public transport and it doesn't arrive on time for that appointment at 10 o'clock (P19)</i>
Subtheme: Funding <i>[People with SPMI] financially may not be able to afford the rates for physio (P7)</i>
Theme: Enablers to improving access to physiotherapy services
Subtheme: Education of physiotherapists <i>Definitely better education and training in terms of what to expect from certain disorders and even just one or two things in terms of how to manage them or how to deal with them (P7)</i>
Subtheme: Funding models <i>Maybe in the mental health care plan there should be acknowledgement that physiotherapy has a role... that would be a small token but it could help (P30)</i>
Subtheme: Service models <i>Someone who knows the person well, and the person's family and their condition well and they are the key contact person for that person so we keep going back to this one person yeah, I think that would help (P8)</i>
Subtheme: Referral pathways <i>We should know where patients need to go and what service we should be referring them to (P11)</i>

SPMI = severe and persistent mental illness.

the range of clinical presentations and symptoms, and information about more effective communication were perceived as critical in facilitating treatment. There was a consensus that education needs to be embedded in the undergraduate course and made accessible to practising physiotherapists.

Subtheme: Funding models

Shortcomings of current funding models were identified and discussed. More funding was proposed to assist people with SPMI in managing the cost of private practice physiotherapy services. In addition, participants felt that funding in the public sector was necessary to ensure that physiotherapists had capacity to treat people with SPMI.

Subtheme: Service models

A multi-disciplinary team approach was thought to be favourable both in the outpatient and inpatient settings for these patients. Case management, and better communication pathways with occupational therapists, psychologists, social workers and physiotherapists was identified as necessary to deliver effective treatment. Longer appointment times were also thought to be highly desirable to fully address the range of conditions in this population.

Subtheme: Referral pathways

Receiving more referrals and having someone or somewhere to refer people with SPMI was important to the majority of participants. Participants felt that there was a need for community outpatient services with suitably trained physiotherapists to which they could refer people with SPMI.

Quantitative study

Fifty-nine respondents completed the survey. Two respondents were excluded as they self-identified as allied health assistants. Survey respondent characteristics are presented in Table 3 and their clinical experience in mental health is summarised in Table 4. Forty-nine (86%) participants were female and mean age was 38 years. Thirteen (23%) respondents had experience working in a mental health setting. Depression and anxiety were the mental health conditions most commonly encountered (53% of respondents each). In people with SPMI, the most commonly managed physical health conditions were chronic pain (40%) and musculoskeletal issues (26%). When physiotherapists treated people with mental illness for their mental illness, they mostly administered exercise (65%) as well as lifestyle or motivation programs (58%). General practitioners were the most common referral source (28%) followed by other specialist staff (25%).

Fifty-five (93%) respondents agreed that physiotherapists should play a significant role in managing the physical health problems of people with SPMI. Thirty-three (58%) respondents felt confident managing cardiovascular diseases, chronic pain, respiratory-related disorders, metabolic syndrome, and diabetes in the general population. However, only 10 (18%) respondents felt confident managing these conditions in people with SPMI (Figure 1, with numerical data presented in Appendix 2 on the eAddenda).

Only 16% of respondents felt that their workplace was thoroughly well equipped to manage the physical health needs of people with mental illness (Figure 2, with numerical data presented in Appendix 2 on the eAddenda). Fifty-one (90%) respondents reported needing

Table 3
Characteristics of survey respondents.

Characteristics	Participants (n = 57)
Age (yr), mean (SD), range	38 (13), 21 to 63
Gender, n female (%)	49 (86)
Clinical experience (yr), mean (SD), range	14 (12), 1 to 38
State or territory of residence, n (%)	
New South Wales	9 (16)
Queensland	6 (11)
South Australia	3 (5)
Tasmania	1 (2)
Victoria	11 (19)
Western Australia	27 (47)
Primary area of professional practice, n (%)	
cardiorespiratory	4 (7)
gender health	2 (4)
gerontology	7 (12)
intensive care	2 (4)
mental health	1 (2)
musculoskeletal	20 (35)
neurological	4 (7)
non-clinical	1 (2)
paediatrics	3 (5)
sports	2 (4)
chronic disease	1 (2)
community health	3 (5)
orthopaedics	3 (5)
pain	1 (2)
rehabilitation	1 (2)
surgical	1 (2)
women's health	1 (2)
Primary area of clinical work, n (%)	
inpatient	17 (30)
outpatient	37 (65)
not applicable	3 (5)
Place of primary employment, n (%)	
community health organisation	9 (16)
private hospital	3 (5)
private practice (non-hospital)	15 (26)
public hospital (non-tertiary)	3 (5)
public hospital (tertiary)	19 (33)
university	4 (7)
department of education	1 (2)
public rural health and private practice	1 (2)
nursing home	2 (4)
Location of primary place of employment, n (%)	
rural	13 (23)
urban	44 (77)
Secondary area of professional practice, n (%)	
cardiorespiratory	3 (5)
gender health	1 (2)
gerontology	7 (12)
musculoskeletal	8 (14)
neurological	5 (9)
non-clinical	10 (18)
sports	3 (5)
not applicable	18 (32)
clinical Pilates	1 (2)
rehabilitation	1 (2)
Secondary area of clinical work, n (%)	
inpatient	10 (18)
outpatient	17 (30)
not applicable	30 (53)
Place of secondary employment, n (%)	
community health organisation	5 (9)
private hospital	3 (5)
private practice (non-hospital)	8 (14)
public hospital (non-tertiary)	2 (4)
public hospital (tertiary)	9 (16)
university	7 (12)
not applicable	21 (37)
aged care	2 (4)

Table 4
Experience of survey respondents in mental health.

Characteristics	Participants (n = 57)
Experience working in a mental health setting, n yes (%)	13 (23)
Type of SPMI among patients seen, n (%) ^{a,b}	
depression	30 (53)
anxiety	30 (53)
schizophrenia	12 (21)
bipolar disorder	12 (21)
Common physical health conditions among patients with SPMI, n (%) ^b	
chronic pain	23 (40)
musculoskeletal	15 (26)
poor cardiovascular fitness	6 (11)
obesity	1 (2)
other ^c	7 (12)
Modalities physiotherapists used to treat people with SPMI, n (%) ^{a,b}	
exercise (supervised)	37 (65)
exercise (other)	38 (67)
general physical activity advice	19 (33)
education	20 (35)
other ^d	33 (58)
Referral sources to physiotherapists for people with SPMI, n (%) ^{a,b}	
general practitioners	16 (28)
self-referred	6 (11)
other physiotherapists	8 (14)
mental health professionals	7 (12)
other specialist staff ^e	14 (25)

SPMI = severe and persistent mental illness.

^a This question allowed multiple responses.^b This question was not offered to participants who answered 'none' to the question: *What proportion of your current caseload includes people with a mental health illness that is contributing to their presenting complaint? (eg, chronic pain, obesity, diabetes, smoking, etc.).*^c For example, medicinal overdose or functional neurological disorders.^d For example, lifestyle programs or motivational programs.^e For example, specialists or nursing staff.

Discussion

It is believed that this study is the first to examine physiotherapists' perspectives about their involvement in managing people with mental health conditions. The majority of physiotherapists in the study considered treatment of people with SPMI to be part of their job and that physiotherapists can play a role in managing the physical wellbeing of people with SPMI. This finding complements the large body of literature supporting the positive impact of physiotherapists in the treatment and management of physical health in the SPMI population.^{9,14-17} However, personal and systemic barriers were identified to explain why physiotherapy services are not more systematically accessible to people with SPMI.

Limited confidence in treating this population was a major barrier identified by physiotherapists in both components of our study. This limited confidence was largely attributed to a lack of training at both undergraduate and postgraduate levels. In addition, despite it being defined in both components of the study, it appeared that many physiotherapists considered depression and anxiety as forming the bulk of SPMI, reflecting a limited understanding of the broad range of existing mental health conditions. These results are consistent with the findings of Connaughton and Gibson,¹⁸ who identified a gap in foundational knowledge about mental illness in undergraduate physiotherapy students due to insufficiencies in physiotherapy curricula across Australia and New Zealand. These results also confirm the perception held by mental health professionals and those with SPMI that physiotherapists do not have the necessary training to effectively manage people with these conditions.¹¹ One implication of this finding is that access to mental health education for physiotherapists at an undergraduate and/or postgraduate level would greatly improve understanding of mental illness, with the potential to substantially enhance workforce capacity.

Consistent with previous literature,¹⁸⁻²⁰ physiotherapists in our study recognised that theoretical and practical education is required to ensure that physiotherapists are better equipped to treat people with SPMI. This education may include

education about how to effectively manage the physical health of people with SPMI (Figure 3, with numerical data presented in Appendix 2 on the eAddenda). Further, 48 (84%) felt that they needed information about how to communicate with people with SPMI appropriately (Figure 1).

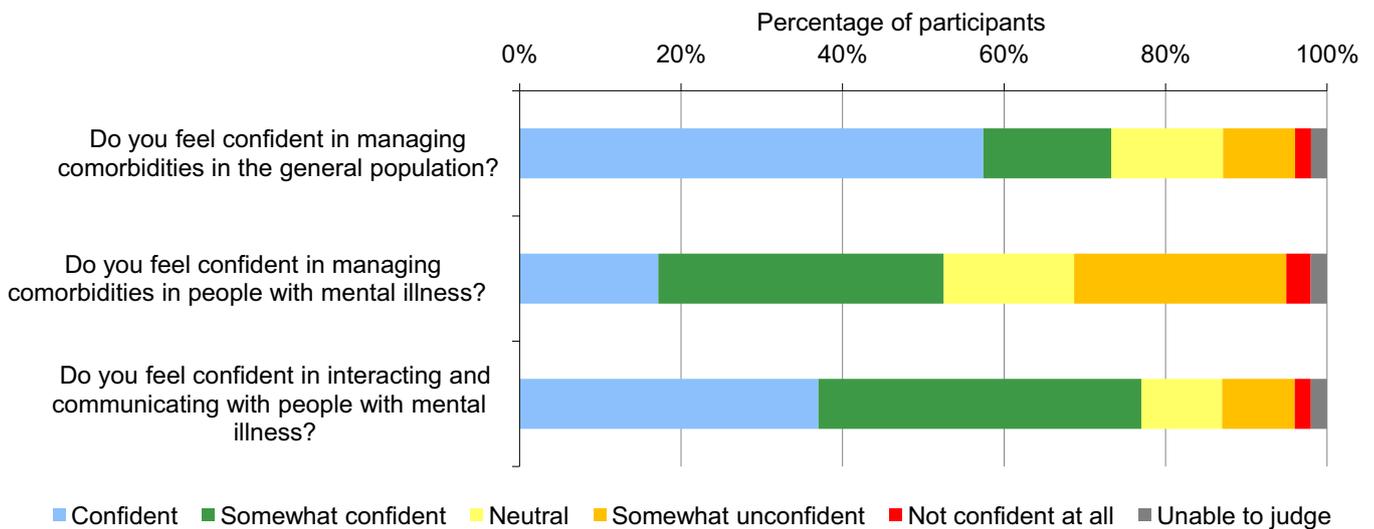


Figure 1. Percentage of survey responses for questions about confidence in managing people with severe and persistent mental illness (n = 57). Comorbidities include cardiovascular diseases, chronic pain, respiratory-related disorders, metabolic syndrome and diabetes.

communication strategies, symptoms and clinical presentation of mental illness, antipsychotic medication side-effects and the role physiotherapy plays in the treatment of physical conditions in people with SPMI.^{18,19,21} Some training opportunities and resources are offered to physiotherapists through the APA Mental Health Group, and to all health professionals through organisations such as Black Dog, Beyond Blue and Australian Red Cross. However, the exact approach to training physiotherapists to treat this population adequately needs to be further explored.

The gap identified in mental health training for physiotherapists may be a major factor in other reported barriers, including stigmatisation of those with SPMI and uncertainty of the role that physiotherapists play.

Participants in both components of our study expressed concerns about staff safety and the perceived bizarre and unpredictable behaviours of people with SPMI. Such beliefs have been previously reported amongst other health professionals, including physiotherapists.²²⁻²⁴ Concerns about risk of violence were notable. Negative perceptions about risks and behaviours in people with SPMI can be problematic because such perceptions have a detrimental effect on help-seeking behaviours for mental health problems generally,²⁵ and might influence access to physiotherapy services by people with SPMI. While stereotypes about mental health are held by society in general,²⁶ and are therefore difficult to address, it has been previously reported that specific initiatives such as direct contact and education about mental illness in the health sector might work to improve negative prejudice.²⁷⁻²⁹ The results also highlight a need for better staff education about assessment of risk, and relationships with other factors such as substance abuse, insight and illness severity, and how to manage aggression.³⁰

Uncertainty about the role that physiotherapists play in managing the physical health of those with SPMI is a common thread between

this study and Lee et al.¹¹ Importantly, both studies question whether GPs know about physiotherapists' relevance in this clinical area. This is of significance when discussing systemic barriers to physiotherapy access. Importantly, these findings provide physiotherapists with the opportunity to educate GPs about their willingness to receive referrals for people with SPMI who present with the common, health-related co-morbidities or sequelae of SPMI, for which physiotherapists have effective interventions.

Referrals of people with SPMI both to and from physiotherapists was identified as being lacking or limited by both groups of physiotherapists. However, it was still reported that GPs were the main source of referrals to physiotherapy services, directly reflecting Lee et al.¹¹ Therefore, to ensure appropriate referrals to improve physiotherapy service access, it is critical that GPs are fully cognisant of the role that physiotherapists can play in managing the physical health of people with SPMI.

Physiotherapists recognised that the structure and cost of the healthcare system was inadequate to accommodate people with SPMI. High costs of private physiotherapy services was identified as a barrier for people with SPMI and has been previously highlighted in the literature.¹² Furthermore, the rigorous appointment schedules that are typical in the Australian healthcare system were reported to be ill-suited to this population. The commonality of missed healthcare appointments in people with SPMI has also been previously represented in the literature.^{11,31,32} As a result, fitting people with SPMI into the healthcare system can be likened to fitting a square peg in a round hole. Alterations to the healthcare system to make accommodations for this population is an essential step towards enabling greater access to physiotherapy services.

A major strength of this study was the mixed methods design. Qualitative data collected from focus groups and interviews provided

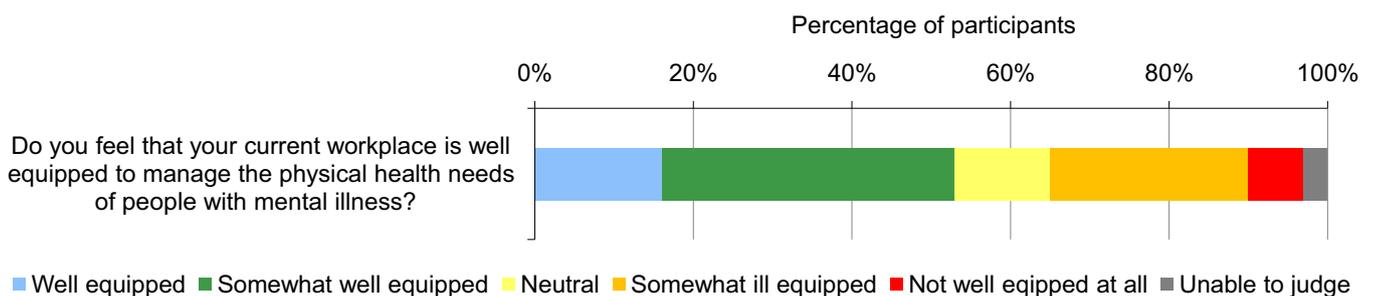


Figure 2. Percentage of survey responses for question about workplace readiness for treating people with severe and persistent mental illness (n = 57).

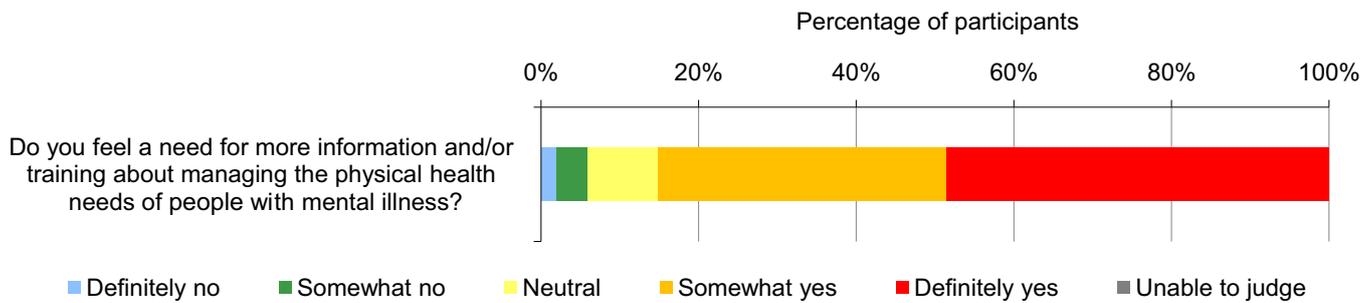


Figure 3. Percentage of survey responses for question about training requirements for treating people with severe and persistent mental illness (n = 57).

in-depth information about the multifaceted issues, and survey data about a sensitive topic could be provided with complete anonymity.³³ Results from both study methods were complementary. Another strength was representation of both regional and urban, and private practice and hospital-based physiotherapists in both components of our study to ensure that a variety of geographical locations and a range of clinical experience were represented.

This study had some limitations. The survey was originally circulated through APA networks. Members of the APA arguably hold more contemporary, evidence-based views and this may have introduced bias. The use of word of mouth and snowballing as a recruitment strategy for the qualitative component may have limited capacity to generate a representative sample, and all qualitative data were collected from Western Australian physiotherapists. However, the qualitative findings are reflected in the results of the survey, which were collected from across Australia, suggesting that there can be confidence generalising results within Australia.

Physiotherapists are ideally poised to become leaders in the treatment and management of the physical health in people with SPMI. However, a number of factors limit physiotherapists' ability to provide adequate healthcare services to this population. Of importance were the identification of limited education of physiotherapists regarding the treatment of people with SPMI; negative perceptions and beliefs held by physiotherapists about people with SPMI; and inadequate healthcare system structures. Physiotherapists interested in this area of healthcare are encouraged to seek out currently available generic professional development opportunities. Furthermore, better undergraduate education of physiotherapists, physiotherapist-specific postgraduate training, and flexibility in health service delivery are believed to be essential steps towards improving the physical health in this important yet overlooked population.

What was already known on this topic: People with severe and persistent mental illness typically have poor physical health and comorbid conditions such as obesity, diabetes, and cardiovascular and respiratory disease. Physiotherapists are well trained in delivering interventions that can assist with these comorbidities and reduce the risk of future health problems. Physiotherapy has limited presence and advocacy within the multidisciplinary mental health team.

What this study adds: Despite having effective interventions to offer people with mental illness, physiotherapists may not engage with this population because of insufficient education and confidence in this clinical area, health system structure, and stigmatisation of people with mental illness. Physiotherapists should seek existing training opportunities in mental health, increase undergraduate and postgraduate education in mental health, and address health system barriers.

eAddenda: Appendices 1 and 2 can be found online at <https://doi.org/10.1016/j.jphys.2019.08.001>.

Ethics approval: The Curtin University Human Research Ethics Committee (HREC) has approved this study (HRE2017-0866). All

participants gave written informed consent before data collection began.

Competing interests: Nil.

Source(s) of support: This study was funded by the School of Physiotherapy and Exercise Science at Curtin University.

Acknowledgements: The authors would like to acknowledge Ms Novia Minaee for her guidance in using SPSS software.

Provenance: Not invited. Peer reviewed.

Correspondence: Dr Robyn Fary, School of Physiotherapy and Exercise Science, Curtin University, Perth, Australia. Email: R.Fary@curtin.edu.au

References

- Hardy S, White J, Deane K, Gray R. Educating healthcare professionals to act on the physical health needs of people with serious mental illness: a systematic search for evidence. *J Psychiatric Mental Health Nurs.* 2011;18:721–727.
- Grubaugh AL, Clapp JD, Frueh BC, Tuerk PW, Knapp RG, Egged LE. Open trial of exposure therapy for PTSD among patients with severe and persistent mental illness. *Behav Res Ther.* 2016;78:1–12.
- Alexandros K, Barnett F, Thomas Y. The impact of exercise on the mental health and quality of life of people with severe mental illness: a critical review. *Br J Occup Ther.* 2012;75:48–60.
- Knapik GP, Graor CH. Engaging persons with severe persistent mental illness into primary care. *J Nurse Pract.* 2013;9:283–287.
- Robson D, Gray R. Serious mental illness and physical health problems: A discussion paper. *Int J Nurs Stud.* 2007;44:457–466.
- Dickerson F, Origoni A, Schroeder J, Schweinfurth LA, Stallings C, Savage CL, et al. Mortality in schizophrenia and bipolar disorder: clinical and serological predictors. *Schizophr Res.* 2016;170:177–183.
- Pina-Camacho L, Díaz-Caneja CM, Saiz PA, Bobes J, Corripio I, Grasa E, et al. Pharmacogenetic study of second-generation antipsychotic long-term treatment metabolic side effects (the SLiM Study): rationale, objectives, design and sample description. *Rev Psiquiatr Salud Ment.* 2014;7:166–178.
- Bishop MD, Torres-Cueco R, Gay CW, Lluch-Girbes E, Beneciuk JM, Bialosky JE. What effect can manual therapy have on a patient's pain experience? *Pain Manag.* 2015;5:455–464.
- Mental health and physiotherapy. Australian Physiotherapy Association Web Site. https://www.physiotherapy.asn.au/DocumentsFolder/Advocacy_Position_Mental_Health_2011.pdf. Accessed July 1, 2018.
- Morgan VA, Waterreus A, Jablensky A, Mackinnon A, McGrath JJ, Carr V, et al. People living with psychotic illness in 2010: the second Australian national survey of psychosis. *Aust N Z J Psychiatry.* 2012;46:735–752.
- Lee S, Waters F, Briffa K, Fary RE. Limited interface between physiotherapy primary care and people with severe mental illness: a qualitative study. *J Physiother.* 2017;63:168–174.
- Pope C, Mays N. Qualitative research: reaching the parts other methods cannot reach: an introduction to qualitative methods in health and health services research. *BMJ.* 1995;311:42–45.
- Tong A, Sainsbury P, Craig J. Consolidated criteria for reporting qualitative research (COREQ): a 32 item checklist for interviews and focus groups. *Int J Qual Health Care.* 2007;19:349–357.
- Vancampfort D, Knapen J, Probst M, Scheewe T, Remans S, De Hert M. A systematic review of correlates of physical activity in patients with schizophrenia. *Acta Psychiatr Scand.* 2012;125:352–362.
- Stubbs B, Soundy A, Probst M, De Hert M, De Herdt A, Vancampfort D. Understanding the role of physiotherapists in schizophrenia: an international perspective from members of the International Organisation of Physical Therapists in Mental Health (IOPTMH). *J Ment Health.* 2014;23:125–129.
- Stubbs B, Soundy A, Probst M, Parker A, Skjaerven LH, Gyllensten AL, et al. Addressing the disparity in physical health provision for people with schizophrenia: an important role for physiotherapists. *Physiother.* 2014;100:185–186.
- Stubbs B, Probst M, Soundy A, Parker A, De Herdt A, De Hert M, et al. Physiotherapists can help implement physical activity programmes in clinical practice. *Br J Psych.* 2014;204:164.

18. Connaughton J, Gibson W. Physiotherapy students' attitudes toward psychiatry and mental health: a cross-sectional study. *Physiother Can.* 2016;68:172–178.
19. Pope C. Recovering mind and body: a framework for the role of physiotherapy in mental health and well-being. *J Public Ment Health.* 2009;8:36–39.
20. Vancampfort D, Rosenbaum S, Probst M, Connaughton J, du Plessis C, Yamamoto T, et al. Top 10 research questions to promote physical activity in bipolar disorders: a consensus statement from the International Organization of Physical Therapists in Mental Health. *J Affect Disord.* 2016;195:82–87.
21. Vancampfort D, De Hert M, Skjerven LH, Gyllenstein AL, Parker A, Mulders N, et al. International Organization of Physical Therapy in Mental Health consensus on physical activity within multidisciplinary rehabilitation programmes for minimizing cardio-metabolic risk in patients with schizophrenia. *Disabil Rehabil.* 2012;34:1–12.
22. Peer J, Warnecke A, Baum C, Goreczny A. Stigmatization of people with schizophrenia: perspectives of graduate students in various healthcare fields. *Intl J Ment Health.* 2015;44:186.
23. Rao H, Mahadevappa H, Pillay P, Sessay M, Abraham A, Luty J. A study of stigmatized attitudes towards people with mental health problems among health professionals. *J Psychiatr Ment Health Nurs.* 2009;16:279–284.
24. Setchell J. What has stigma got to do with physiotherapy? *Physiother Can.* 2017;69:1–5.
25. Clement S, Schauman O, Graham T, Maggioni F, Evans-Lacko S, Bezborodovs N, et al. What is the impact of mental health-related stigma on help-seeking? A systematic review of quantitative and qualitative studies. *Psychol Med.* 2014;45:11–27.
26. Schulze B, Angermeyer MC. Subjective experiences of stigma. A focus group study of schizophrenic patients, their relatives and mental health professionals. *Soc Sci Med.* 2003;56:299–312.
27. Phelan M, Stradins L, Morrison S. Physical health of people with severe mental illness: can be improved if primary care and mental health professionals pay attention to it. *Br Med J.* 2001;322:443–444.
28. Rüsç N, Angermeyer MC, Corrigan PW. Mental illness stigma: concepts, consequences, and initiatives to reduce stigma. *Eur Psychiatry.* 2005;20:529–539.
29. Stubbs A. Reducing mental illness stigma in health care students and professionals: a review of the literature. *Australas Psychiatry.* 2014;22:579–584.
30. Fazel S, Långström N, Hjern A, Grann M, Lichtenstein P. Schizophrenia, substance abuse, and violent crime. *JAMA.* 2009;301:2016–2023.
31. Pastore P, Griswold K, Homish G, Watkins R. Family practice enhancements for patients with severe mental illness. *Community Ment Health J.* 2013;49:172–177.
32. Coodin S, Staley D, Cortens B, Desrochers R, McLandress S. Patient factors associated with missed appointments in persons with schizophrenia. *Can J Psychiatr.* 2004;49:145–148.
33. Huan-Niemi E, Rikkonen P, Niemi J, Wuori O, Niemi J. Combining quantitative and qualitative research methods to foresee the changes in the Finnish agri-food sector. *Futures.* 2016;83:88–99.

Websites

www.qualtrics.com