

ORIGINAL ARTICLE

# Understanding the role of physiotherapists in schizophrenia: an international perspective from members of the International Organisation of Physical Therapists in Mental Health (IOPTMH)

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## Abstract

**Background:** Patients with schizophrenia have a drastically increased morbidity and mortality. In non-mental health settings, physiotherapists play an integral role in the management of many of the comorbidities seen in schizophrenia (e.g. cardiovascular disease, diabetes, obesity). However, the role of the physiotherapist is not well understood in the treatment of patients with schizophrenia.

**Aim:** To obtain an international perspective of mental health physiotherapists on their role within the treatment of individuals diagnosed with schizophrenia.

**Method:** A cross-sectional survey of members of the International Organisation of Physical Therapists interested in mental health (IOPTMH) was undertaken. Free text responses to open-ended questions were analysed with a thematic analysis.

**Results:** Two themes emerged: (1) physiotherapists stated they are physical health experts in the multidisciplinary team (MDT), bridging the gap between physical and mental health. (2) Physiotherapists are integral in health promotion efforts in patients with schizophrenia encouraging healthier lifestyle choices and higher levels of habitual physical activity. Physiotherapists felt their interventions had a diverse range of positive effects on patient's health and well-being.

**Conclusion:** Physiotherapists are integral part of the MDT that have a focused role on promoting the physical health needs of patients who are diagnosed with schizophrenia.

## Keywords

Exercise, mental health, multidisciplinary team, physical activity, physical health, physiotherapy, schizophrenia

## History

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## Introduction

Individuals with schizophrenia have a drastically increased morbidity and mortality compared to members of the general public and the gap appears to be increasing (Hoang et al., 2013; Nielsen et al., 2013). Commonly occurring physical health conditions in this population include cardiovascular disease, metabolic syndrome, osteoporosis, obesity and diabetes (Cimo et al., 2012; Crump et al., 2013; De Hert et al., 2011). The reasons for the disparity in the physical health in people with schizophrenia are multifaceted and complex (Vancampfort et al., 2010). However, recent policies and guidelines (e.g. De Hert et al., 2009; Royal College of Psychiatrists, 2009) are attempting to address this. The encouragement of healthier and more active lifestyles are central to these policies (Vancampfort et al., 2012a). Indeed, it is very apparent many patients with schizophrenia exhibit low levels of physical activity and spend a large amount of time being sedentary (Janney et al., 2013). Despite these

findings, it is now well established that engaging in physical activity has several beneficial effects on mental health (Holley et al., 2011) physical health (Gorczyński & Faulkner, 2010; Vancampfort et al., 2011) and quality of life (Vancampfort et al., 2013). With this in mind it is important to consider how all members of the multidisciplinary team (MDT) can contribute to the physical health of individuals with schizophrenia and which health care professional group are best equipped to lead physical health promotion and address the physical health disparity.

Recent policies from national physiotherapy governing bodies have stipulated that physiotherapists have a central role in treating the physical and mental health needs of individuals with schizophrenia (APA, 2011; CSP, 2008). This includes a broad range of traditional physiotherapeutic techniques as well as promoting and encouraging a healthy lifestyle. However, details of the exact role are unclear, although related evidence has implied an important role and has indicated the importance of physical activity as a part of this. For instance, physiotherapists are regarded as essential in non-mental healthcare settings for the treatment of individuals with cardiovascular disease (Eriksson et al., 2006), diabetes (Hansen et al., 2013) and other commonly occurring

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co-morbidities seen in individuals with schizophrenia (Crump et al., 2013). Recently, research has begun to advocate the role of physiotherapists in the delivery of physical activity programmes (Vancampfort et al., 2010) while other evidence has also acknowledged the value of support from physiotherapists in undertaking physical activity (Carless & Douglas, 2008). This is further supported by evidence that demonstrates the effectiveness of physiotherapy-based interventions (Vancampfort et al., 2012b).

It seems there is great potential for physiotherapists to play a key role in facilitating patients to engage in healthier lifestyle choices and in reducing the physical health disparity seen in this population. While recent research has been encouraging, it remains unclear (a) what the role of physiotherapist's entails and (b) how well the role of the physiotherapist is understood across mental health services. Therefore, the role of the physiotherapist warrants investigation and clarification of this will be valuable to mental health MDT's and patients. Thus, in order to address this we set out to establish an international perspective on the role of specialist mental health physiotherapists' in the treatment of individuals with schizophrenia.

## Methods

### Design and participants

A secure online survey invite was sent out to all members of the International Organisation of Physical Therapists in Mental Health (IOPTMH  $n=480$ ). Physiotherapists were eligible if they had clinical experience ( $>1$  year) of working with people with schizophrenia (exact eligible  $n$  is unknown).

### Survey

The survey contained open and closed questions and included three sections: (1) demographic information, (2) training and education and (3) the role of the physiotherapist in schizophrenia. The survey was developed by experts (all authors) and edited for content by a statistician. The survey was then piloted on four mental health physiotherapists to assess face validity and ease of use. Full details of this and the final questionnaire can be obtained from the corresponding author. The survey and invitation e-mail was written in English and was conducted via a secure online survey tool (Qualtrics available at <http://www.qualtrics.com>).

### Protocol

The survey was e-mailed out to all members of the IOPTMH in April 2013. Members were informed about the purposes of the research and assured that responses would be anonymous and confidential. In order to maximise the response rate, a second e-mail reminder was sent out after 2 weeks.

### Data analysis

All data from the closed questions were analysed utilising descriptive statistics and entered into SPSS (version 20, IBM Corp., Armonk, NY). In addition, all free text responses to the question ‘‘in your view what is the role of the physiotherapist in schizophrenia’’ were analysed utilising a thematic analysis. The primary author undertook the initial stages of the

thematic analysis, this included becoming immersed in the free text responses to establish any potential themes, coding all free text comments and identifying broad themes within a thematic network (Hsieh & Shannon, 2005). The thematic framework was developed inductively and revised before the final themes were identified. Within each theme, a number of subsequent sub-themes developed by the first author and critiqued by the second author and the number of comments within each sub-theme were counted. An audit trail is available from the primary author.

## Results

### Demographics

One hundred and fifty-one physiotherapists from 31 countries completed the survey including 104 from Europe (68.9%). Most respondents were female (70.0%; 106/151), with a mean age of 40 years ( $\pm 11.2$ ). On average the physiotherapists had over 10 years ( $\pm 9.0$ ) clinical experience in mental health settings, with 74% (111/151) and 46% (69/151) of respondents providing input across in and outpatient settings, respectively. Half of the respondents had received training regarding schizophrenia at University and 44% (67/151) had received training on dealing with the physical comorbidities frequently encountered in this population.

### What is the role of the physiotherapist in schizophrenia?

One hundred and fifteen physiotherapists (76.1%) provided a valid response. Following analysis two themes were generated: (1) Physiotherapists perceived that their role was to act as the physical health experts in the psychiatric MDT. (2) Physiotherapists perceived they were integral in a health promotion role for patients with schizophrenia.

#### *Theme 1: Physiotherapists are the physical health experts in the MDT*

Four main sub-themes were developed and each will briefly be explored. First, physiotherapists have an integral role in bridging the gap between mental and physical health in patients with schizophrenia (48/115, 41.7%). Many physiotherapists felt strongly that they were the physical health experts in the MDT care of patients with schizophrenia. Physiotherapists also recognised the drastically reduced physical health of people with schizophrenia and stipulated they helped bridge the gap between physical and mental health, where members of the MDT often focussed more frequently on the patients mental health. For example, one respondent stated ‘‘*Physiotherapists are integral for treating schizophrenia. With the grossly reduced physical health of this patient group we have to take a lead as we are often the leading experts on physical health in the MDT, others are mental health specialists predominantly*’’ (P 1, male 32 years old, UK).

Second, physiotherapists should lead in the promotion of physical activity and structured exercise in patients with schizophrenia (50/115, 43.5%). Indeed increasing individuals daily physical activity and also in prescribing exercise. For example, one physiotherapist stated: ‘‘*physiotherapists should*

Table 1. First theme: physical therapists are physical health experts in the psychiatric multidisciplinary team.

Theme for role of physical therapist	Sub-theme (n = number of participants commenting on the category)	Indicative quotation
Physical Health experts in the MDT	Integral role as bridging physical and mental health boundaries (n = 48) Promotion of physical activity and structured exercise (n = 50) Mind/ body approach (n = 39) Musculoskeletal treatment (n = 14)	<p>“<i>physiotherapist... form the bridge between physical health and mental health</i>” (Participant 9, female, 37 years old, Sultan of Oman).</p> <p>“<i>Physios must take a lead on health promotion of physical health, increasing habitual physical activity</i>”. (Participant 4, female 47 years old, UK).</p> <p>“<i>important for patients to learn to relate/stay related to real world through bodily sensations and movement</i>” (participant 31, female, Denmark 47 years old).</p> <p>“<i>physiotherapists can help the person with Schizophrenia in regaining strength, re-establishing the contact with the body, to learn how to relax, to practice concentration, and also with the feelings of loss and depression</i>” (participant 60, female 27 years old, Belgium).</p> <p>“<i>patients may have pain which they relate to delusional beliefs. The physiotherapist has to treat pains and injuries as per usual standards, while acknowledging these delusions and working with the individual to overcome these</i>” (participant 58, female 30 years old, UK).</p>

lead in promoting an active lifestyle, designing individually tailored interventions to keep the individual active within their environment. These should be implemented in the inpatient and community settings. This should include regular assessment of physical activity with appropriate outcome measures and monitoring” (P 32, female 29 years old, Canada). The notion that physical activity programmes should be individualised by physiotherapists who can safely adapt the frequency, intensity and type of activity to the patient was seen as key. For instance, one physiotherapist stated “*The prescription of physical activity is not a one size fits all, therefore, for particularly at risk individuals of poorer health like so many with schizophrenia [the] physio has to utilise their knowledge to advise the team*” (P 1, male 32 years old, UK). Physiotherapists are also able to prescribe structured exercises in order to address a range of presentations from patients that seeks to return them to optimal levels of functioning. For example, one physiotherapist stated “*Physiotherapists can have a role in prescribing exercises to decrease muscle spasm secondary to medication use and to help them get contact with the environment and providing body awareness sessions to get in touch with themselves*” (P 38, female, 56 years old, Lebanon).

Third, physiotherapists utilise a holistic, mind-body approach to increase body awareness among patients with schizophrenia (39/115, 33.9%). For instance, one stated that “*I think we can help the person with Schizophrenia from [his] head to his body. Mindfulness, body awareness, etc are all important*” (P39, female 56 years old, Netherlands). Another stated that physiotherapists “*Help schizophrenics to be more connected, coherent in themselves through work with the body mind*” (P 73, male 52 years old, Belgium). Another physiotherapist stated “*The role of [the] Physiotherapist is important because they can help patients use the body to help the mind to be better*” (P 22, 37 years old, female, Brazil).

Finally, physiotherapists (14/115, 12.1%) stated that they had an integral role in the assessment and treatment of musculoskeletal conditions in a similar way to a non-mental health physiotherapists. For example, one stated that “*The physiotherapists role in the treatment of one with schizophrenia is no different than that of a person without the diagnosis.*

*All persons may have musculoskeletal or neurological changes that will require physiotherapy*” (P 34, female 53 years old, Republic of Ireland). Table 1 provides a full break down of this theme.

#### Theme 2: Physiotherapists have an important health promotion role

Within this theme, three emergent sub-themes became apparent. First, physiotherapists have a key role in encouraging patients to live a healthier lifestyle and optimise their functioning (41/115, 35.7%). It was evident that many respondents saw physiotherapists as having an integral role in the promotion of a healthier lifestyle by encouraging patients to be more active. For instance, one physiotherapist stated “*the role of [a] physiotherapist helps to maintain their movement and activity levels in order to help them optimize their activity [as part of their] daily living*” (P 79, male 30 years old, Malaysia). Another physiotherapist commented that encouraging an active lifestyle should be correlated with changes in outcome measures across several different areas of functioning: “*Physiotherapists promote physical health and wellbeing through encouraging an active lifestyle. This should involve the use of routine outcome measures and carefully documented interventions so that we can evidence that our interventions have a beneficial effect on. physical health, mental health...and behaviour measures*” (P 29, female 30 years old, UK).

Second, physiotherapists have a key health promotion role in the management of the various disease-related factors that arise within schizophrenia, including metabolic syndrome, obesity, diabetes and other related chronic diseases (42/115, 36.5%). For example one stated physiotherapists “*promote physical functioning, activity and independence maintaining physical health avoiding weight gain associated with anti-psychotic medication and promoting activity*” (P 35, female 39 years old, USA). A number of physiotherapists identified that they treated many of the symptoms that arise specifically within patients who suffer from schizophrenia. For example, “*We treat both the symptoms that occur directly from their mental illness (symptoms described in ICD-10) – bodily*

Table 2. Second theme: physical therapists are key in health promotion.

Theme for the role of the physical therapist	Sub-theme ( <i>n</i> = number of physical therapists commenting on category)	Indicative quotation
Health promotion role	<p>Key role in encouraging patient to live healthy lifestyle and optimise their functioning (<i>n</i> = 41)</p> <p>Key role in management of disease related factors (e.g. weight gain, metabolic syndrome negating the effects of medication) (<i>n</i> = 42)</p> <p>Key role in helping patients mental health (<i>n</i> = 25)</p>	<p>“Enabling patients to maintain and even improve their physical capabilities in order to be able to carry out activities of daily living, to fulfil their social roles, and to...enhance their quality of life” (P 20, female 57 years old, UK).</p> <p>“we should lead on prescription of exercise in metabolic syndrome, diabetes and those at risk from cardiovascular events” (Participant 4, female 47 years old, UK).</p> <p>“To prevent the onset of physical aspects of the illness associated with medication and the illness such as weight gain, metabolic syndrome, diabetes coronary heart disease” (participant 41, female 42 years old, UK).</p> <p>“Minimise/counter effects of medication on posture and muscle imbalance” (participant 30, 57 years old, UK).</p> <p>“Exercise helps reduce anxiety and release chemical mediators in the brain that may prove beneficial to combating the side-effects of current psychiatric medications and enhancing the mental health of patients with schizophrenia” (participant 128, female 53 years old, USA).</p>

disturbances, not having initiative or motivation etc. And we treat the problems secondary to the illness – like metabolic syndrome and other lifestyle problems” (P 89, female 39 years old, Denmark).

Finally, physiotherapists through various interventions are able to have a positive influence on patient’s mental health and functioning (25/115, 21.7%). One stated that “Physiotherapists help individuals with schizophrenia to socialize, improve cognitive and motor skills, face the reality, [and] experience success through the physical activity. Physiotherapists help also patients to get more self-confidence and self-awareness” (P 148, female 32 years old, Belgium). A number of physiotherapists specifically felt that the exercises they delivered with patients were very beneficial on the mechanism, which are thought to improve a patients mental health. Additionally, a number of physiotherapists pointed out that physiotherapy interventions improve socialisation and functioning. Table 2 provides a full breakdown of this theme.

## Discussion

This is the first international survey of expert’s perceptions of the role of physiotherapists in schizophrenia and the results demonstrate that physiotherapist’s perceive their interventions can have a diverse range of beneficial effects upon patients. Physiotherapists were able to see their role as spanning across a broad range but included being the physical health experts in the mental health MDT and also being integral in promoting healthier lifestyle choices through health promotion. There was a strong feeling from respondents that their role with psychiatric MDT was to act as a bridge between physical and mental health issues and they were integral in providing treatment for the physical health of people with schizophrenia. In particular, physiotherapists felt strongly that their role was in the promotion of lifestyle physical activity and overseeing the delivery of structured exercise in this patient group. In addition, physiotherapists reported that their role encompassed a mind–body approach and a more traditional role of providing musculoskeletal treatment

for patients. Within the second theme, physiotherapists felt they were absolutely integral in health promotion efforts, encouraging them to live healthier lifestyles and also in the management of the various commonly occurring sequelae of this condition (e.g. metabolic syndrome, obesity, diabetes, etc.). In addition, physiotherapists felt their interventions had a positive influence on patient’s mental health and social functioning.

There is growing concern about the physical health disparity in patients with schizophrenia, which has been met with calls for lifestyle interventions to promote healthier and more active lifestyle choices (De Hert et al., 2009; Royal College of Psychiatrists, 2009). Our findings demonstrate that physiotherapists are well placed to deliver a multitude of interventions to improve the health and well-being of patients with schizophrenia. This finding supports previous literature that has recognised how integral physiotherapists are at treating many of the problematic co-morbidities seen in this population (Eriksson et al., 2006; Hansen et al., 2013). Our findings support recent policy statements from national physiotherapy governing bodies (APA, 2011; CSP, 2008) which advocate physiotherapists role in mental health services and stipulate that physiotherapists specialist skills include being experts in physical healthcare, non-pharmacological treatment of pain, expertise in motivation, development of lifestyle/ weight management programmes and prescribing exercise (Pope, 2009).

In addition to the traditional role of treating musculoskeletal complaints, MDT members should recognise and take advantage of mental health physiotherapist’s expansive clinical expertise and evidence-based interventions in the delivery of physical activity (Vancampfort et al., 2012b). The assessment, prescription and encouragement often required to facilitate physical activity for individuals with schizophrenia necessitates specialist training and knowledge and mental health physiotherapists are very well equipped to oversee this. Ultimately, this should seek to ensure the person develops the confidence, mastery and motivation to be autonomous in pursuing physical activity. However, more physiotherapy led research is urgently required to build upon the findings

from our research and recent national governing body policy statements.

### Limitations

It is not possible to determine the exact response rate and it is likely that it is relatively low and it is likely that there was a high social desirability bias in respondents.

### Conclusion

Physiotherapists have a key role in the treatment of patients with schizophrenia and their interventions may have a broad spectrum of benefits for patients. In particular, physiotherapists are physical health experts providing an important bridge between physical and mental health in patients with schizophrenia. Promoting and encouraging physical activity is a central tenant of the physiotherapist's role in treating individuals with schizophrenia.

### Declaration of interest

Michel Probst is president of the IOPTMH, but this did not affect the research at any stage nor the decision to publish. All other authors have no conflict of interest to declare.

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