

Barriers to and Facilitators of Physical Activity Among Persons With Schizophrenia: A Survey of Physical Therapists

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Objective: This study examined the experience, perceptions, and knowledge of physical therapists who work within mental health services regarding barriers to and facilitators of physical activity among people with schizophrenia. **Methods:** A total of 151 physical therapists, members of the International Organization of Physical Therapists in Mental Health, completed an online survey. Data-driven and concept-driven content analysis was conducted with the responses. **Results:** The most frequently cited barriers were patients' lack of motivation (45% of respondents) and a lack of priority given to physical activity by other health care professionals (28%). The most frequently cited facilitators included the provision of esteem support by health care professionals (28%) and the promotion of enjoyment and autonomy for the patient (25%). **Conclusions:** When promoting physical activity

among individuals with schizophrenia, health care professionals who work in mental health settings should provide an individual approach, taking into account patient-related and situational factors. (*Psychiatric Services* 65:693–696, 2014; doi: 10.1176/appi.ps.201300276)

Lower levels of physical activity and high levels of sedentary behavior among individuals with schizophrenia compared with the general population are well documented. To change the behavior of individuals with schizophrenia, research is needed that identifies the factors that influence an individual's participation in physical activity.

A growing body of research has examined these factors by using both qualitative (1,2) and quantitative (3) methods. This literature has described several distinct barriers that individuals with schizophrenia face when attempting to become more active. They include physical, psychosocial, and environmental and situational barriers. Physical barriers include the side effects of antipsychotic medication (1,4,5), illness symptoms (1), the individual's state of health (4), and pain generated by undertaking physical activity (6). Psychosocial and interactional barriers include social anxiety (7), fear of stigma (4), self-presentation concerns and fears related to previous experiences of discrimination (8), a lack of motivation (5), a lack of initiative (1),

and ambivalence (8). The environmental and situational barriers include socioeconomic factors (1,4), transportation issues (4), time required for the physical activity, and feeling unsafe in an exercise environment (5). Other factors that may influence participation include relapses related to nonadherence to medication, fears for one's physical safety, and delusional beliefs about physical activity.

Many of the psychosocial barriers can be positively influenced (5). For instance, an individual's health care team that provides structured physical activities can offer encouragement and motivation (1). More specifically, health care professionals can provide verbal encouragement (9), positive reinforcement, and rewards (1). Actions taken fall within key constructs—including but not limited to social support, an individual's identity and autonomy, the provision of choice (2), and self-efficacy in regard to physical activity (3). Two of these constructs—physical activity self-efficacy and social support—are essential if physical activity promotion is to be successful (1,5).

Research has begun to consider these constructs more closely. Carless and Douglas (10) utilized a four-dimensional model of support (informational support, esteem support, tangible support, and emotional support). This was based on Cutrona and Russell's (11) four functional dimensions of functional social support. McDevitt and colleagues (5) established a need to consider physical activity

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self-efficacy, which is represented by four sources of information (12): physiological or affective states, verbal persuasion (very similar to the esteem support dimension), vicarious experiences, and enactive mastery experiences. Both constructs need further consideration in regard to their specific role in inpatient and outpatient settings.

Research must consider the perspectives of staff promoting physical activity in psychiatric services, because these individuals will likely understand the key factors that influence physical activity participation. Physical therapists who work in psychiatric services represent the frontline staff who promote physical activity. Currently, research has been conducted with mental health therapists (13), nurses (4), exercise physiologists (14), and a mixture of health care professionals (9,10). However, very few studies have considered the views and experiences of physical therapists (10). The purpose of this study was to consider the views and experiences of physical therapists who work in psychiatric services. We sought to identify the factors that influence physical activity among patients with schizophrenia and to determine whether facilitating factors are represented with the aforementioned dimensions of social support or sources of physical activity self-efficacy.

Methods

All members of the International Organization of Physical Therapists in Mental Health (IOPTMH), a subgroup of the World Confederation for Physical Therapy (WCPT), were invited via an e-mail invitation to take part in a survey. The exact size of the IOPTMH subgroup is not known. Members reside in 39 countries across six continents. Ethical approval was obtained from the University of Birmingham.

Questions for the cross-sectional survey were developed on the basis of the authors' knowledge and expertise in physical activity and schizophrenia and by considering the extensive research literature. A small pilot study was conducted with five physical therapists to assess face validity and ease of use. The survey documented

demographic information (nationality, age, experience, and training). Two open-ended questions addressed barriers to and facilitators of physical activity for individuals with schizophrenia. The survey was conducted in English, which is the official language of the WCPT. Three e-mails (initial invitation and reminder e-mails) were sent to all members of the IOPTMH between April 5 and 29, 2013. The e-mails contained a link to a secure online survey tool (Qualtrics, available at www.qualtrics.com). Participants were informed about the purposes of the study and were told that completing the questionnaire represented informed consent.

Descriptive statistics, including frequencies, were used. Verbatim quotes from participants were entered into Excel. Quotes were linked by country. A data-led content analysis was conducted for the two main open-ended questions. The first author analyzed the data using concept-driven analysis within the main analysis. The concept-driven analysis included social support (11), with four dimensions of support and four sources of physical activity self-efficacy (12) (using the four sources of self-efficacy). The codes from the data content analysis were reported by frequency counts (and accompanying percentage) to represent a "quantitative" content analysis. A code reduction strategy was utilized that required at least 5% of total responses to be made in order for a code to be included (N=6 responses for the barrier question and N=5 responses for the facilitator question). Responses were grouped according to each question and detailed by country if at least four physical therapists from a country responded. A full audit trail for both questions is obtainable from the first author.

Results

Survey responses were received from 151 physical therapists: 138 practitioners, four clinical educators, six researchers in the field of mental health, and three individuals who did not disclose this information. Respondents were from 31 countries; 104 (69%) were from Europe, including 42 (28%) from the United Kingdom and 25 (17%) from Belgium. The sample

included 45 men and 106 women, with a mean±SD age of 40±11.2 years. The mean number of years of clinical experience in mental health was 10.0±9.0. A total of 111 worked in an inpatient setting (74%), 69 (46%) worked in an outpatient setting, and 39 (26%) worked in the community. (These categories were not mutually exclusive.) A total of 75 (50%) were trained at a university in the topic of mental illness, and 52 (34%) received training while on clinical or training placements.

The main results, reported here, are for items for which 10% of the sample responded. The response rate for the barriers question was 72% (N=108 responses), including 38 responses (35%) from Great Britain, 19 (18%) from Belgium, 12 (11%) from the United States, and four (4%) from Denmark. The response rate for the facilitator question was 63% (N=95 responses), including 35 (37%) from Great Britain, 18 (19%) from Belgium, nine (9%) from the United States, and six (6%) from Denmark. [Tables presenting results for items for which the response rate was between 5% and 10% and a further breakdown by country are included in an online data supplement to this report.]

The facilitator question generated two themes, eight subthemes, and 20 codes. The barrier question generated two themes, six subthemes, and 15 codes. Subthemes are described below. [More detailed information about the themes and subthemes is available in a series of tables in the online supplement.]

Two subthemes for the barrier question were identified, which included patient and situational factors. Within the subtheme of patient factors, the barrier most frequently cited was the patient's lack of motivation to exercise (N=49, 45%). This included 13 (68%) physical therapists from Belgium and 21 (55%) from Great Britain. Barriers also frequently cited were side effects of medication (N=29, 27%), negative symptoms of schizophrenia (N=23, 21%), and fluctuations in mood and illness (N=20, 19%). Several other barriers were cited by at least 10% of respondents, including financial barriers to the patient (N=11,

10%); self-esteem, confidence, or physical activity self-efficacy (N=12, 11%); negative beliefs about exercise (N=13, 12%); and not understanding the importance or value of physical activity (N=12, 11%).

Within the subtheme of situational factors regarding barriers, the two most frequently cited were the limited opportunity for physical activity on inpatient wards (N=24, 22%) and a lack of priority given to physical activity by other members of the multidisciplinary team (N=30, 28%). Two related barriers were cited less frequently, including a lack of knowledge among health care professionals (N=13, 12%) and a lack of continuity of care after inpatient treatment (N=13, 12%).

Two subthemes for the facilitator question were also identified, and these included social support and preconditions and factors that facilitated activity participation. Within the theme of social support, each of the four domains of social support was identified by respondents. Esteem support was identified by 27 (28%) of the 95 respondents. Respondents also cited group membership (N=20, 21%) as a factor that can be of great value to physical activity participation. Within the emotional support subtheme, another frequently cited facilitator was the importance of the therapeutic relationship and trust (N=20, 21%). Most of the respondents who cited this facilitator were from Great Britain (N=13, 65%). Related to the subtheme of informational support was the need for tailoring information for the individual (N=14, 15%); this referred to the need to provide an individual with information that was related to his or her choice of activity and establishing realistic goals for this activity. Within the tangible support subtheme was the need for intense or one-to-one support for an individual (N=13, 14%).

Four subthemes were constructed for the theme of preconditions and factors' facilitating physical activity. The two most frequently identified factors involved aspects of the individual and of the environment. The facilitator labeled enjoyment, autonomy, and choice for the individual

received the highest score by 24 of the 95 respondents to this question (25%). Respondents who scored this facilitator the highest were three of the six respondents from Denmark who answered the question (50%) and 13 of the 35 respondents from Great Britain (37%). Another facilitator identified by more than 10% of respondents was enactive mastery experiences (N=10, 11%).

Discussion

This survey documented the perceptions of physical therapists who work in psychiatric services. The barriers to physical activity most frequently cited were related to the effects of antipsychotic medication, a lack of motivation, the fluctuation of an individual's illness, and negative symptoms. The most frequently cited facilitators included esteem support from health care professionals and from peers, the need for greater involvement of the multidisciplinary team, and the relationship and trust between therapist and patient.

Physical therapists who responded to the survey were able to recognize the challenges that patients faced. These psychological and physical barriers are well documented (1,4,6,14). Other key barriers were related to patients' situation and included a lack of opportunity for being physically active on inpatient wards and a lack of priority given to physical activity by other members of the multidisciplinary team. It is important to recognize that other mental health professionals may view physical activity as an ancillary treatment, utilized only when an individual's mental health is stable (9). It is also important to note that many health care professionals view physical activity as an important part of holistic care and provide informational and esteem support for individuals with severe mental illness (4).

The survey results confirm the importance of social support as a facilitator of physical activity. Particularly evident was the value that the therapists placed on esteem support (verbal persuasion as a source of physical activity self-efficacy) and informational support. Previous research has also identified the value of esteem

support, notably in the early stages of exercise (2,10). Informational support has been suggested as a way of raising individuals' awareness of the benefits of physical activity (10). The physical therapists who responded to the survey called for tailored information for individuals with schizophrenia. It is worth noting that an individual's peer group can also provide informational and esteem support. This need for supportive and encouraging relationships with peers and health care professionals alike has been acknowledged (2,4). The findings suggest that a lack of empathy or low expectations can influence participation. Individuals with schizophrenia are sensitive to meta-perceptions of others, such as health care professionals, especially if good relationships are not established (8). Like our study, other studies have identified transportation issues and geographical location as barriers to physical activity among individuals living in the community (10). These barriers need consideration when transition from a hospital to a community setting is made.

Individuals with schizophrenia are vulnerable to negative comparisons with others and a reduced sense of self-esteem and confidence (1). In social interactions, they sometimes attribute discriminatory attitudes to other people, which can have a negative impact on their physical activity participation. Health care professionals who help with community integration after a hospital stay must be sensitive to an individual's "athletic identity" and to his or her need for support and trusted relationships (2), as well as to the barriers that individuals face when transitioning to a new environment. A single health care professional is not responsible for providing all the support that an individual needs. Rather the professional enables a transition to a sustainable physical activity setting where peers and other health care professionals, such as exercise physiologists, can provide support.

This study had several limitations. The analysis of the results assumed individuals were adherent to their medication; however, nonadherence to medication will likely have an impact on the main barriers identified within

our results section. In addition, a physical therapist's personal habits in regard to physical activity may influence his or her efforts to promote physical activity among patients—a factor that has been identified in a sample of physicians and nurses (15). Such personal habits likely influenced responses to our survey. Also, the situational barriers identified in the survey involved inpatient settings; fewer barriers were identified in community environments, which have different and more varied barriers. The survey did not examine strategies used to provide social support or to improve physical activity self-efficacy. The response rate from the entire sample was unknown and likely to be low and may have been overrepresented by mental health physical therapists working in Great Britain and Belgium.

Conclusions

Barriers to physical activity among individuals with schizophrenia most frequently cited by physical therapists were related to the individual—lack of motivation, side effects of antipsychotic medication, and fluctuations in mood and illness—and to the environment or situation—a lack of opportunities on wards and a lack of support from other health care professionals. Social support and physical activity self-efficacy were considered to be essential facilitators. Providers of training as well as researchers and

health care professionals should consider both barriers and facilitators when promoting physical activity among individuals with schizophrenia.

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