Mental Health and Physical Activity xxx (2017) 1–6

Contents lists available at ScienceDirect

Mental Health and Physical Activity

journal homepage: www.elsevier.com/locate/menpa

Interest, competence, appearance, fitness and social relatedness as motives for physical activity in Ugandan outpatients with psychosis

Davy Vancampfort [a, b, *], Marc De Hert [b], Michel Probst [a], Joseph Firth [c], Inez Myin-Germeys [d], Ruud van Winkel [b, d], Annetie Naisiga [e], David Basangwa [e], James Mugisha [e, f]

[a] KU Leuven Department of Rehabilitation Sciences, Leuven, Belgium
[b] University Psychiatric Centre KU Leuven, Kortenberg, Belgium
[c] Division of Psychology and Mental Health, University of Manchester, Manchester, UK
[d] KU Leuven Centre of Contexual Psychiatry, Leuven, Belgium
[e] Butabika National Referral and Mental Health Hospital, Kampala, Uganda
[f] Kyambogo University, Kampala, Uganda

ARTICLE INFO

Article history:
Received 1 March 2017
Received in revised form
11 April 2017
Accepted 5 May 2017
Available online xxx

Keywords:
Exercise
Physical activity
Motivation
Psychosis

ABSTRACT

Objective: Motivating people with psychosis to meet recommended physical activity levels is a public health priority. It remains unclear whether physical activity motives differ between male and female patients, those with and without cardio-metabolic risks, those who exercise alone versus in group and in aerobic exercise versus resistance training. The aim of this study was to explore differences in PA motives related to several patient characteristics in Ugandan outpatients with psychosis.

Methods: 48 patients (24♀; 33.3 ± 9.6 years) completed the Motives for Physical Activity Measure – Revised (MPAM-R), Patient-centred Assessment and Counselling for Exercise questionnaire, the Brief Symptoms Inventory - 18 (BSI -18), were asked for their physical activity participation in the last 7 days and screened for abdominal obesity, overweight, hypertension, smoking, medication use and the presence of chronic conditions.

Results: A multivariate analysis of variance demonstrated main effects for stages of physical activity behavior change (Wilks $\lambda = 0.40$, $F = 2.98$, $P = 0.043$) and gender (Wilks $\lambda = 0.45$, $F = 3.45$, $P = 0.031$). There were no interaction effects between stage of change and gender (Wilks $\lambda = 0.35$, $F = 1.89$, $P = 0.089$). Men scored higher on appearance ($P = 0.046$) and interest/enjoyment ($P = 0.042$). Higher ($P < 0.05$) MPAM-R were observed in action and maintenance behaviour stages versus pre-action stages but there were no differences between the action and maintenance stage. There were no significant correlates between MPAM-R and BSI-18 scores.

Conclusions: Extrinsic (fitness, appearance, social benefits) and intrinsic (interest, competence) motives are equally important in adopting and maintaining physical activity in people with psychosis. Socio-cultural role patterns should be considered, also in Western settings (e.g., in refugees).

1. Introduction

The mental and physical health benefits of physical activity for people with psychosis are nowadays widely acknowledged (Firth, Carney et al., 2016; Firth, Cotter, Ellliot, French, & Yung, 2015; Firth, Rosenbaum et al., 2016; Rosenbaum, Tiedemann, Sherrington, Curtis, Ward, 2014; Vancampfort, Rosenbaum, Ward, Stubbs, 2015). Motivating people with psychosis to become more physically active should therefore worldwide be a public health priority (Vancampfort et al., 2013). Identifying factors associated with physical activity is important because it will assist in informing future research and may guide the implementation of physical activity interventions (Rosenbaum et al., 2016; Vancampfort & Faulkner, 2014). The literature regarding motives towards participation in physical activity in people with psychosis is already substantial. A number of theoretical models have been

* Corresponding author. Tervuursevest 101, 3001 Leuven, Belgium.
E-mail address: davy.vancampfort@kuleuven.be (D. Vancampfort).

http://dx.doi.org/10.1016/j.mhpa.2017.05.001
1755-2966/

studied in an attempt to explain, predict and ultimately change physical activity behaviours in people with psychosis. Some studies focus on the stages and processes of change (the trans-theoretical model) (Gorczynski, Faulkner, Greening, & Cohn, 2010), while others seek to understand the differences in autonomous or volitional motivation, relative to more controlled or pressured motives (the self-determination theory) (Sailer et al., 2015; Vancampfort et al., 2013, 2016). A study incorporating both the trans-theoretical and self-determination theory models (Vancampfort et al., 2014) demonstrated that more autonomous forms of motivation are observed in more advanced stages of physical activity behavior change. Individuals with psychosis in the maintenance stage (complying with 150 min of moderate to vigorous physical activity per week for at least 6 months) were more autonomously motivated toward physical activity than those in the pre-action (not yet physically active) and action stages (not yet physically active 150 min per week at moderate to vigorous intensity for at least 6 months). More in detail, those in the maintenance stage engage with more eagerness and volition and with a sense of choice and willingness.

It is important to maximize the health benefits and return on investment of physical activity programmes, and to improve their sustainability, recruitment and retention rates. To achieve this, we need to know which people are, and are not physically active, and their specific motives and barriers. Barriers that are consistently related to lower physical activity in people with psychotic disorders include the presence of cardio-metabolic comorbidity, negative symptoms, side-effects of antipsychotic medication, lack of knowledge on cardiovascular disease risk factors, no belief in the health benefits of being active, a lower self-efficacy, and social isolation (Vancampfort et al., 2013). In contrast, motives to engage in physical activity often relate to weight loss, improving mood and reducing stress (Firth, Rosenbaum et al., 2016). However, it remains unclear whether these motives differ between male and female patients with psychosis, between those with and without a cardio-metabolic risk profile, between those who exercise alone versus in group and those who are only doing aerobic exercise versus those who prefer including a resistance training component as well. It might be hypothesized that for example physical appearance is a more important motive in women, social reasons are more important for those who prefer to exercise in group and health motives are more important for those at risk for cardio-metabolic diseases. Next to this, autonomous forms of motivation and stages of change are thought to be universal (Deci & Ryan, 2000) but studies on motives for physical activity participation in low resourced settings in low to middle income countries (LMICs) are scarce. It is of interest to explore motives for physical activity participation in non-Western settings as cultural norms in non-Western populations dictate that health promotion behaviors, such as engaging in physical activity, are viewed as White behaviors; whereas unhealthy behaviors, such as not engaging in physical activity, are viewed as in-group defining (Oyserman, Fryberg, & Yoder, 2007). To the best of our knowledge the current study is the first to explore motives for being physically active in people with psychosis in a Sub-Saharan African mental health setting. This lack of studies from LMICs highlights also the gap between where most research is done and where the largest public health impacts of physical inactivity due to under-treatment are located (Sallis et al., 2016). Such research might also inform clinical treatment of immigrants from LMICs in Western mental health settings. Thus, given the aforementioned gaps within the literature, we aimed to assess the motives for being physically active in people with psychosis in Uganda. We explore differences in motives between male and female patients with psychosis, between those with and without a cardio-metabolic risk profile, between those who are physically active alone versus in group and those who are only doing aerobic activities versus those who prefer including resistance training and differences across the stages of change. We also explored associations of motives for being physically active with psychiatric symptoms in LMICs.

2. Methods

2.1. Participants and procedure

In a 3-month period all consecutive outpatients who had clinical diagnoses of psychotic disorders including schizophrenia, schizoaffective disorder, bipolar disorder or depression with psychotic features and delusional disorders, as diagnosed by the treating psychiatrist of the Butabika National Referral Hospital, Kampala, Uganda, were invited to participate. Although pharmacotherapy is the basis of the treatment, outpatients do have the option to exercise once a week (soccer, basketball, netball). The exercise session is delivered by the only occupational therapist of the hospital. Individuals were included if they had at least a partial remittance in psychotic symptoms and were able to concentrate during the interview as determined by the treating psychiatrist. All questionnaires were interviewer-administered in Luganda. The study procedure was approved by the ethical committee of Mengo Hospital. All participants gave their written informed consent.

2.2. Motives for physical activity measure – revised (MPAM-R)

The MPAM-R (Ryan, Frederick, Lepes, Rubio, & Sheldon, 1997) is a 30-item questionnaire that assesses five motives for participating in physical activity. Fitness (5 items) refers to being physically active out of the desire to be physically healthy and to be strong and energetic ("Because I want to be physically fit"). Appearance (6 items), assesses being physically active in order to become more physically attractive, to have defined muscles, to look better, and to achieve or maintain a desired weight ("Because I want to lose or maintain weight so I look better"). Competence (7 items), refers to being physically active because of the desire just to improve in an activity, to meet a challenge, and to acquire new skills ("Because I like engaging in activities that physically challenge me"). Social (5 items), refers to being physically active in order to be with friends and meet new people ("Because I enjoy spending time with others doing this activity"). Interest/enjoyment (7 items) measures being physically active just because it is fun, makes you happy, and is interesting, stimulating, and enjoyable ("Because I like the excitement of participation"). In this study, the questions were rated on a 3-point Likert scale with 1 = not at all true for me, 2 = true for me and 3 = very true for me. The Cronbach's alpha coefficients ranged from 0.70 for appearance to 0.85 for competence and interest/enjoyment.

2.3. Stage of readiness to change

Stages of change as derived from the trans-theoretical model (Prochaska & DiClemente, 1992) were assessed using a modified version of the stage of change questionnaire from the Patient-centred Assessment and Counselling for Exercise (PACE) questionnaire (Long et al., 1996). The algorithm used was a single item followed by four questions. In the present study, physical activity was defined as moderate intensity activity for 30 min at least five days of the week (e.g., physical activities that take moderate physical effort and make you breathe somewhat harder than normal), and the four questions were used to determine the stage of change for physical activity. Participants had to answer either 'yes' or 'no' to each of the following questions: (1) Do you currently

Please cite this article in press as: Vancampfort, D., et al., Interest, competence, appearance, fitness and social relatedness as motives for physical activity in Ugandan outpatients with psychosis, *Mental Health and Physical Activity* (2017), http://dx.doi.org/10.1016/j.mhpa.2017.05.001