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"It's good for me": Physical Activity in Older Adults with Schizophrenia

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Abstract

Physical activity interventions to improve the physical function of older adults with schizophrenia are necessary but not available. Older adults with schizophrenia may have unique barriers and facilitators to physical activity. The purpose of this study was to describe the perceptions of older adults with schizophrenia about barriers and facilitators to engage in physical activities that promote physical function. We conducted qualitative interviews with 16 older adults with schizophrenia. Data were collected and analyzed with grounded theory methodology. Participants expressed interest in becoming more physically active for a variety of perceived benefits including psychiatric symptom management and maintenance of basic function. Key barriers and facilitators to physical activity emerged in five broad categories: Mental Health, No longer a spring chicken, Pride and Sense of Well-being, Comfort and Safety, and Belonging. Interventions in this population should address negative attitudes towards aging and promote routine physical activities that enhance well-being and companionship.

Keywords

Schizophrenia; Physical Activity; Gerontology; Grounded Theory

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Introduction

Older adults with a serious mental illness, such as schizophrenia, comprise 1 to 2% of the population and are predicted to reach 15 million by the year 2030.(S. Bartels, 2004; Jeste et al., 1999) The physical function of older adults with schizophrenia is exceedingly poor. (Chafetz, White, Collins-Bride, Nickens, & Cooper, 2006; Kilbourne et al., 2005) Data suggests that the physical function of younger people with serious mental illness, including schizophrenia, may resemble that of someone 10 to 20 years older.(Chafetz, White, Collins-Bride, & Nickens, 2005) Physical function is a multilevel concept that includes the body functions, the activities people conduct and life areas they participate in, and the environmental factors that affect these experiences.(Jette, 2006) Decrements in physical function contribute to poor health outcomes and decreased quality of life in older adults with schizophrenia.

Physical activity (PA) may be a necessary aspect of treatment for older adults with schizophrenia in order to improve physical function. PA can help delay disability and maintain independence in older adults.(Tirodkar, Song, Chang, Dunlop, & Chang, 2008) PA has been defined as any bodily movement that enhances health.(U.S. Department of Health and Human Services, 2008) PA improves physical function and mental health in older adults.(Chou, Hwang, & Wu, 2012; Deslandes et al., 2009; Manini & Pahor, 2009) The many chronic medical conditions experienced by people with schizophrenia, such as COPD or arthritis, can hinder optimal PA. Furthermore, older adults with schizophrenia are inclined to limitations in PA due to the aging process.(J. Gallo, 2006)

In order to improve the physical function of older adults with schizophrenia, PA interventions are needed that target their unique needs. Presently, no published data are available on interventions that promote physical function in this population. However, before PA interventions can be designed and tested to improve the physical function of older adults with schizophrenia, additional research is needed on the factors that contribute to optimal PA. In this paper, we present the findings from a qualitative grounded theory study that explored perceptions about barriers and facilitators to engage in PA among older adults with schizophrenia.

Methods

Design

Grounded Theory was the methodological basis for our study.(Glaser, B. & Strauss, A. L., 1967) Symbolic interactionism provides the theoretical framework for grounded theory methodology and maintains the belief that individuals' understandings occur within the context of relationships.(Blumer, 1969) Institutional review board approval was acquired from the University of California, San Francisco Committee on Human Research. Anonymity and confidentiality were upheld according to their guidelines. After consenting, participants were interviewed in small groups or in a one-on-one format.

Participants and Settings

Inclusion criteria were that participants be: 1) at least 55 years of age or older; 2) diagnosed with schizophrenia or schizoaffective disorder; and 3) competent to consent based on an evaluation of their comprehension of the consent form. The participants were recruited from three sites: a transitional residential and day treatment center; a locked residential facility; and an intensive case management program. Five participants were enrolled from a transitional residential and day treatment center; 3 from a locked residential facility; 7 from an intensive case management program; and 1 was referred by a colleague in the community. Participants received 30 dollars for their participation in the study.

Data Collection and Analysis

Recruitment and data collection began in December 2010 and ended in July 2011. Data collection included in-depth focus group or one-on-one interviews conducted by the principal investigator and the research team. Data collection included in-depth focus group or one-on-one interviews conducted by the principal investigator (PI) and one research team member. Interviews were held on nine different dates at five different locations convenient to participants. On five occasions, the PI and her team member conducted the interviews together with 10 subjects and on four occasions the team member conducted the interviews with 6 subjects. A semi-structured interview guide was used that was malleable to the participant responses and focused on questions about physical activity.

Data collection and analysis were done simultaneously with a constant comparison analysis approach.(Charmaz, 2006; Clarke, 2005; Glaser, B. & Strauss, A. L., 1967) Interviews were transcribed verbatim and checked to verify transcription accuracy. Field notes and interview transcriptions were entered into atlas.ti, version 6.2, software to assist with organization of the data. To begin, open coding was completed through transcript analysis with word-by-word and segment-by-segment coding. The salient open codes were: schizophrenia symptoms, medication, physical limitations, no longer a spring chicken, smoking and substance use, stigma, living situation, weather, transportation, lack of money, pride, comfort, boredom, connections, group activity, purpose, feels good, structure, safety, and routines. Next, axial and selective coding were used in order to determine key themes and properties in the data and to eventually develop a conceptual framework of codes and categories. The categories that emerged from the axial and selective coding process were: Mental health, No longer a spring chicken, Pride and Sense of well-being, Comfort and Safety, and Belonging. Codes and categorical concepts as well as relationships between categories were identified using theoretical memos. Conceptualizations about the codes and categories were further discussed among the research team. Theoretical and methodological notes were documented during the study. In the results, we define the categories, further illustrate the categories with quotes, and report our conceptualizations about the categories.

Results

Sixteen participants completed an interview. The majority of participants interviewed expressed interest in improving physical function through PA. For example:

> A: for someone my age, it’s very important to maintain the vitality. You want to be able to get in and out of the car without a problem, you want to be able to get dressed. You don’t want to fall down when you’re getting dressed. You want to be able to pick things up off the floor, which I have a lot of trouble with nowadays, And we’re not talking about major exercise here. We’re talking about modest stuff. …And I’d like to be able to walk further and more easily. That would be very seriously important to me.

Participants indicated commonly practiced PAs such as walking, doing household chores, going to the gym, lifting weights, dance, and exercise videos. The majority of the interviews focused on discussion about barriers and facilitators to engage in physical activity. In the next section, we will present the categories of facilitators and barriers that emerged: Mental health, No longer a spring chicken, Pride and Sense of well-being, Comfort and Safety, and Belonging.

Mental Health

The participants described how aspects of their mental health were both barriers and facilitators to PA. For example, one participant talked about the detrimental impact of poor mental health and psychiatric medications:

> A: I think the mental health and the psychotropics slow you down.

Another client described how one symptom in particular was a deterrent to activity:

> P: depression makes me exercise less, it keeps me from walking… if it wasn't the boredom, then my mental illness would keep me inside all the time.

Other participants described the impact of schizophrenia in general:

> J: If I feel I'm feeling kind of nutty, I don't go out.

However, participants also indicated the symptoms of schizophrenia could propel activity:

> A: madness sometimes increases your physical activity…you've seen them outside walking around, sort of a wandering deal, sort of this compulsive, I get on the bus and take a ride somewhere and walk five miles in the sun.

Participants also described the use of PA as a symptom management technique:

> J: I exorcise the devil and Satan and Lucifer and their appearance out of me. I jog them out.

PA was also used for stress management:

> A: *Well, it's motion. I can think all my anxious thoughts away, and it slows me down when I'm through. I love that. I'm thinking all these anxious thoughts, and I'm walking fast, and by the time I get to where I live, I'm tired and I feel great, just really relaxed.*

No Longer a spring chicken

Throughout the interviews, participants emphasized the need to be aware of their age when designing a PA program. In particular, participants expressed interest in PA while being mindful of physical limitations and encouraged the need to have realistic PA expectations.

> R: I'm no longer a spring chicken…I'm going to turn 59. And I'm limited to, how much exertion I can go through without causing a bad problem, so I want to approach this thing with my eyes open, see? But the calisthenics, I can do.

The next quote is an example of how participants would highlight their age and perceived limitations:

> A: I'm in the geriatric set, not way in it, but, you know, sort of getting there.

Participants also reflected on activities they did in their younger days:

> J: I used to jog and stuff when I was younger, but I don't do it no more, because I'm 55 and older.

Other participants described how they needed to modify their expectations based on their perceived physical limitations:

> L: You can do a lot of things, but you got to go at it slow.

Participants also discussed physical limitations that played a part in their realistic approach to physical activity. Common physical limitations described by participants included foot

problems, arthritis, breathing difficulty, sciatica, and pain from previous injuries. For example,

> R: I got trouble with my ankles and my knee from my suicide attempt and that limits me, because I can't run now…And I can't ride a bike, see?

Others described the physical pain associated with PA:

> R: the exertion of just walking causes me to get out of breath very easily. And it hurts on my left leg.

Smoking was common among our participants. Some participants described how the physical effects of smoking were a barrier to doing physical activities.

> J: Smoking. It takes my breath away. It interferes with my physiology, and my mental health… It keeps you from jogging, and running, and walking, and swimming and all those things. It's a terrible habit. I wish I didn't smoke.

Despite the limitations, many participants devised ways to be physically active:

> A: I try to do anywhere from 20 to 30 minutes a day in some capacity, but I don't have to do it in one fell swoop. I can do like 10 minutes, rest a little bit, do 10 minutes…

Often, participants were active through modification of their daily routines.

> M: making it to the bus stop is physical activity for me, because like I said, I did spend some time in a wheelchair and I wasn't able to walk. So I get out of breath real easy. I make it to the bus stop, or I make it up the stairs to go home.

Pride and sense of well-being

Participants described how PA garnered feelings of pride and well-being. Despite the majority of participants describing a general sense of well-being with PA, some talked about how the stigma of schizophrenia perpetuated in a PA setting.

> J: people have a stigma about the mentally ill. And when I start to run, they look at me strangely like I'm an animal or something, and I just can't stand it.

Despite perceived negative stereotypes, some participants imagined that PA could be used to improve their image:

> M: I look at the men's fitness magazines, - I imagine that I'll have a body that looks like that. If I exercise, maybe one day I can have a body that looks like that.

Other participants formulated plans for how they would get their bodies back in shape:

> J: And then I'll make a down payment to go to the gym and work out with weights and get my old - get my pudgy self back together again, build my chest up, get my physique back, and lift weights, and I'll feel good.

One of the over-arching reasons to exercise was because participants saw it as "good for me".

> J: I do that just because I know it's good for me…

PA provided a much needed sense of accomplishment:

> A: That's sort of for me the best thing, to feel vital in the morning, to feel a little bit better. It isn't just a matter of strength and suppleness, which I miss, but just that overall feeling of well-being that comes with something done. And for me, I have to find that in small things when I can.

Participants also found immense pride in becoming fit.

> L: to get physically fit. That's the best thing I've ever done.

Comfort and safety

Most participants emphasized the importance of safety and comfort in order to engage in PA. Some participants described the need to prove to themselves that they could do a certain level of activity before advancing to the next level.

> M: I need to be able to walk to where I'm going without being out of breath, or being in pain, or something like that before I actually do extra exercise. I have to be able to get to where I can walk farther before I start bicycling.

Safety could be ensured through exercising at a facility with a trainer.

> L: they (trainer) really keep you going. Because on your own, you'd have been stopped. But they're not going to let you get hurt, because they stand right under you, in case you can't pick the weight up.

Safety was jeopardized by living in unsafe neighborhoods.

> J: I'm not going to jog in the [neighborhood]. Yeah, they're not safe. They're a bad area.

Comfort was also critical. Participants did not want to engage in PA, like dancing, unless they felt comfortable with others in a dance group

> M: I haven't danced in a while, but I still go there (drum circle in the park). I was gone for a long time, so - it's hard for me to get to know new people, so it's like I've got to get used to the drummers all over again before I can get comfortable enough to dance in front of them.

Belonging

The importance of belonging was brought up during many interviews. Participants searched for belonging through finding purpose, connecting with others, and finding a place to be physically active. For many participants, PA provided a purpose:

> N: Well, it gives me something to do. Yeah, I just don't want to stay cooped up somewhere.

PA could alleviate boredom.

> P: it was easy going out, because staying inside was boredom…There's nothing to do inside, so I'd take walks once or twice a day.

Many of the participants found a way to connect with others through PA:

> M: Yeah, but I can do it on my own, but it's nice to have somebody come along too.
>
> R: I'll walk with you sometime.

Companionship also promoted PA:

> A: I'm more likely to be active with people than not. That's why I usually have a walking buddy. I have a friend I walk with….About twice a week. She goes much further than I do, but I'm going to stretch that out a little bit now.

Not only could friends motivate activity but they could also keep the PA consistent.

> M: Well, my friend, -- he keeps me motivated. On days when I just don't even feel like getting out of bed, if I don't call him, he calls me. He'll say I'm on my way to pick you up, I've got my coat on, now I I've gotta get dressed….

Also, the community of a gym could facilitate activity

> L: you meet a lot of people…everybody's in there (gym) for the same thing, and that's to build your health up. it's cool, you could relate to everybody, because everybody is trying to help themselves, old, young…

One participant described why group PA was particularly motivating:

> L: I like to be in a group, because it motivates me. When you see other people working out and stuff and you don't figure they could even do it, and they do it more than you, it motivates you too

Others indicated the importance of merely an invitation in order to do more PA

> J: If the group asked me to exercise, I would exercise.

The participants often brought up the need for PA to be a routine part of their day in order to maintain PA. Participants emphasized that PA could become routine by starting a PA group:

> J: I just like going to groups…, it's a regular routine that - we automatically go to groups… they have group exercise here. Once in a while I'll do it with the group.

One participant talked about the success of a PA group that is a routine part of his schedule at a board and care:

> M: usually we go out to exercise time before we eat and I have breakfast or before we take our medication. And we exercise to a video, and that helps get moving. It's hard to do, because you just got up, but if you do it, it will help you get you going.

Discussion

A multitude of barriers and facilitators to engage in physical activity were discussed by the participants. Five broad categories identified were: Mental health, No longer a spring chicken, Pride and Sense of well-being, Comfort and Safety, and Belonging. The barriers and facilitators identified may be common among older adults in general but are particularly problematic for the older adult with schizophrenia due to unique issues such as schizophrenia symptoms and cognitive deficits associated with schizophrenia. For example, an older adult may be reticent to go to a gym for fear that others may stigmatize them for attempting to become more active. The additional stigma of a mental illness and symptoms of paranoia heighten this barrier.

Only 6 studies have evaluated the barriers and facilitators to engage in activities that promote physical function in younger people with schizophrenia.(Archie, Wilson, Osborne, Hobbs, & McNiven, 2003; Beebe & Smith, 2010; Daumit et al., 2005; Fogarty & Happell, 2005; McDevitt, Snyder, Miller, & Wilbur, 2006; Weissman, Moot, & Essock, 2006) One study was identified that evaluated facilitators and barriers in older adults with schizophrenia from the staff perspective (Leutwyler, H., Jeste, D., Hubbard, E., and Vinogradov, S., in press) and no studies were identified that gathered the patient perspective. Common facilitators across these studies and our study were the need for individualized programs. A positive sense of self motivated continued engagement in activity. Common barriers to PA across these studies and our study were side effects of medications, fear of pain, schizophrenia symptoms, and poor access.

Our study has a few limitations. We interviewed patients in one limited geographical urban area. The inclusion of participants from other locations might reveal the impact of different geographical areas, such as a more rural area, on types of physical activity preferred or currently practiced. In addition, our participants were engaged in mental health treatment programs. Interviewing patients less involved in structured treatment programs may reveal different facilitators and barriers to PA.

Despite the limitations, this is the first study to our knowledge to explore qualitatively the perceptions of older adults with schizophrenia about facilitators and barriers to engage in PA. Physical activity is important for the entire population as well as for people with physical and/or mental illnesses. In addition, physical activity is particularly important for people with serious mental illnesses because of the high prevalence of sedentary behavior. Future studies should compare the effects of physical activity in these three groups to determine if there are any group differences.

The majority of participants in our study expressed interest in doing more PA. Our participants revealed key factors that should be considered in the design of PA interventions. First, group PA needs to be incorporated into treatment programs. Offering a weekly walking group with a variety of speeds is a cost effective place to start. In addition, offering video game based physical activity (such as the Xbox 360 Kinect) in treatment programs is ideal because it is a form of PA that can be done on site in a familiar environment and allows for group activity. It is also necessary to address negative attitudes towards aging and PA. Providing staff and patient education that focuses on both the physiological and psychological benefit of PA is critical. Patients and their providers have focused on improving their mental health for the majority of their lives and it is a considerable shift to consider physical activity. However, physical activity may be an ideal adjunct treatment for schizophrenia.

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