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“We’re Not Just Sitting on the Periphery”: A Staff Perspective of Physical Activity in Older Adults With Schizophrenia

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Targeted physical activity interventions to improve the poor physical function of older adults with schizophrenia are necessary but currently not available. Given disordered thought processes and institutionalization, it is likely that older adults with schizophrenia have unique barriers and facilitators to physical activity. It is necessary to consider the perspective of the mental health staff about barriers and facilitators to physical activity to design a feasible intervention. **Purpose of This Study:** To describe the perceptions of mental health staff about barriers and facilitators to engage in physical activities that promote physical function among older adults with schizophrenia. **Design and Method:** We conducted qualitative interviews with 23 mental health staff that care for older adults with schizophrenia. The data were collected and analyzed with grounded theory methodology. **Results:** The participants were interested in promoting physical activity with older adults with schizophrenia. Facilitators and barriers to physical activity identified were mental health, role models and rewards, institutional factors, and safety. **Implications:** In order to design successful physical activity interventions for this population, the intervention may need to be a routine part of the mental health treatment program and patients may need incentives to participate. Staff should be

educated that physical activity may provide the dual benefit of physical and mental health treatment.

Key Words: Schizophrenia, Grounded theory

The number of older adults with a serious mental illness, such as schizophrenia, is predicted to more than double to 15 million by the year 2030 (Bartels, 2004). People with schizophrenia are the largest group of older people with severe mental health problems (Cohen et al., 2000). Schizophrenia is a chronic, severe, and disabling psychotic disorder characterized by hallucinations, delusions, thought and movement disorders, negative symptoms, and cognitive impairment (National Institute of Mental Health, 2007).

Data suggest that the physical function of older adults with schizophrenia is poor (Chafetz, White, Collins-Bride, Nickens, & Cooper, 2006; Kilbourne et al., 2005). Research among younger people with serious mental illness, such as schizophrenia, shows that their physical function may resemble that of someone 10–20 years older (Chafetz, White, Collins-Bride, & Nickens, 2005). Physical function can be defined as a multilevel concept that includes the body functions and

structures of people, the activities people conduct and life areas they participate in, and the environmental factors that affect these experiences (Jette, 2006). Decrements in physical function may contribute to poor health outcomes, increased use of health services, and decreased quality of life in this population.

Physical activity may be a critical component to target in older adults with schizophrenia in order to improve physical function. Physical activity is defined as any bodily movement that enhances health (U.S. Department of Health and Human Services, 2008). Optimization of physical activity may help delay disability and maintain independent life in older adults (Tirodkar, Song, Chang, Dunlop, & Chang, 2008). Impairments in physical activity may hinder a person's ability to care for their health needs. The multitude of chronic medical conditions experienced by people with schizophrenia, such as chronic obstructive pulmonary disease, can jeopardize optimal physical activity. Furthermore, older adults with schizophrenia are susceptible to limitations in physical activity due to the aging process (Gallo, 2006). Physical activity improves physical function, gait speed, balance, and activities of daily living (ADLs) in older adults (Manini & Pahor 2009; Chou, Hwang, & Wu, 2012). Improved mood and enhanced cognition have been associated positively with physical activity (Deslandes et al., 2009). Physical activity may be an effective and economical adjunct treatment for age-related neurodegenerative processes (Deslandes et al., 2009). Exercise is planned, structured, and repetitive movement done to improve or maintain one or more component of physical fitness (Chodzko-Zajko et al., 2009). Exercise may provide a way for patients with serious mental illness, such as schizophrenia, to socially integrate (Knochel et al., 2012).

Despite the obvious need for research to improve the health of this especially vulnerable population, less than 10% of published research in schizophrenia focuses on older adults (Mittal et al., 2006). In order to improve the physical function of older adults with schizophrenia, interventions are needed that target their unique needs. Currently, no published data are available on physical activity interventions that promote physical function in this population. However, before physical activity 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 engage in physical activity. Only six studies (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) that included a total of 275 participants, who ranged in age from 16 to 65, have evaluated the barriers and facilitators to engage in physical activities in younger people with schizophrenia. No studies were identified that evaluated facilitators and barriers in older adults with schizophrenia.

An examination of perceived barriers and facilitators to engage in physical activities that promote physical function may provide insights into the factors associated with poor physical function and provide a foundation for intervention research. The involvement of mental health staff in the design and implementation of a physical activity intervention may ensure that the promotion of physical activity reinforces other efforts to improve overall health and well-being (Richardson et al., 2005). In addition to their specific knowledge of this population, the staff have a uniquely informed perspective on what might successfully be implemented within specific mental health programs.

In this article, we present the findings from a qualitative grounded theory study that explored mental health staff perceptions about barriers and facilitators to engage in physical activity among older adults with schizophrenia.

Methods

Design

Grounded theory was the methodological basis for this study (Glaser & Strauss, 1967). Symbolic interactionism provides the theoretical framework for grounded theory methodology and supports the belief that individuals' understandings occur within the context of relationships (Blumer, 1969). Using a grounded theory approach embedded with the theoretical underpinnings of symbolic interactionism allowed for the creation of conceptually dense analyses and did not impose a predetermined framework on the person's experience which made this method ideal for exploring staff perception of barriers and facilitators to physical activity.

Institutional Review Board approval was obtained from the Committee on Human Research, University of California, San Francisco. Anonymity and confidentiality were maintained according to their guidelines. After providing consent to participate, participants were interviewed in small groups or in a one-on-one format.

Participants and Settings

Inclusion criteria were that participants be English-speaking adults age 21 or older and provide care to older persons with schizophrenia or schizoaffective disorder. We encouraged the staff to consider their clients older if they were at least 55 years old. Participants included nurses, case managers, counselors, psychiatric technicians, and administrators. As environmental contexts influence health beliefs and practices, the participants were recruited from three sites: a transitional residential and day treatment center for older adults with severe mental illness; a locked residential facility for adults diagnosed with serious mental illnesses (about half are 55 and older); and an intensive case management program (about 15% are 55 and older). Participants received \$30 for their involvement in the study.

Data Collection and Analysis

Recruitment and data collection began in December 2010 and ended in April 2011. Data collection included in-depth interviews conducted by the principal investigator and her research team. The interviews lasted approximately 60 min. A semi-structured interview guide was used that was malleable to the participant responses and included questions such as: (a) When working with older adults with schizophrenia, what are some of the things you do to get them to participate in activities that promote physical activity? (b) What are some specific techniques you use with older adults with schizophrenia to facilitate physical activity? (c) What are some things within the facility/environment that make it easier for older adults with schizophrenia to engage in physical activities? (d) What are some things within the facility/environment and patient that make it difficult for older adults with schizophrenia to engage in activities that promote physical activity?

Data collection and analysis were done simultaneously using a constant comparison analysis approach (Charmaz, 2006; Clarke, 2005; Glaser & Strauss, 1967). Interviews were transcribed verbatim and then re-checked to the tape to verify transcription accuracy. Field notes and interview transcriptions were entered into Atlas.ti, version 6.2, software to assist with data organization. To begin, open coding was done through transcript analysis with word-by-word and segment-by-segment coding. Then, 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. Codes and categorical concepts as well as relationships between categories were documented using theoretical memos. Conceptualizations about the codes and categories were also discussed among the research team. Theoretical and methodological notes were maintained during the study. The methodological rigor for this study was based in criteria proposed by Guba and Lincoln (1989).

Results

Twenty-three participants representative of staff in psychiatric facilities completed an interview. Eleven participants were from the locked facility and included four nurses, two social workers, two rehabilitation service workers, one program director, and two psychiatric technicians. Six participants were from the transitional facility and included one program director and five counselors. Six case managers were from the assertive community treatment center. We reminded the staff throughout the interviews to consider only the older adults that they work with when answering questions. It was apparent in our interviews that all of the participants had frequent contact with older adults with schizophrenia.

The majority of participants interviewed expressed interest in the promotion of physical activity in older adults with schizophrenia. Participants from each of the recruitment sites indicated common activities that patients engaged in including walking (the most commonly discussed activity), dancing, doing chores, ADLs, gardening, swimming, tai chi, volleyball, and active play video games.

Across the interviews at all three sites, staff described how they play a key role in facilitating or, at times, blocking physical activity and illustrated how they are not just “sitting on the periphery.” The facilitators and barriers to physical activity emerged in four categories: mental health, role models and rewards, institutional factors, and safety. In the next section, we will discuss the four categories and present quotes that illustrate the categories.

Mental Health

The participants indicated that a patient's mental health played an integral role in physical activity. Aspects of mental health could both be a barrier and facilitator to activity. In the next

section, we will illustrate three components of mental health that were described: schizophrenia symptoms, medications, and the prioritization of mental health treatment.

Schizophrenia Symptoms.—Schizophrenia symptoms were described as both a barrier and facilitator to physical activity by most participants. Participants described how the patient experiencing symptoms of schizophrenia could often not focus on anything other than the symptom. One of the staff at the transitional residential facility talked about the barrier of schizophrenia symptoms:

I've seen ... cases where it immobilizes them, where they just completely don't do anything.

For example, extreme paranoia would stop some patients from going out on group walks because of the feeling that something awful would happen if they leave the building. Delusions could also play a part in patients' sedentary lifestyle.

We had one fellow that couldn't go outside, because ... he thought there were snakes all over the ground ... So he laid in bed a lot.

In addition to paranoia and delusions, depression was also a barrier to going out to events.

Depression is a big part of it, because a lot of times like we'll get free tickets to events, and we'll offer them to the clients, and they still won't take it

However, the symptoms of schizophrenia could also facilitate activity. The participants indicated that some clients seem motivated to exercise as a symptom management technique.

... It seems like some schizophrenic clients are really like motivated to exercise ... staying active kind of minimizes like voices ...

Another participant described the activity of an extremely symptomatic patient.

They're just pacing and pacing and pacing when ... they are very delusional.

Participants also indicated that patients taking less medications were often more active.

I think almost the people who are least medicated and more agitated are more likely to be active.

In addition, some patients walked to appointments instead of taking public transportation due to paranoia.

And then I have older clients that walk because their paranoia sets in and they don't want to get on a bus.

Medication.—Many staff described the sedating effects of medication and talked about how medication side effects prevent activity. Despite the perception that medications “slow them down” and cause “low energy,” the participants voiced their support of medications because of the impact made on schizophrenia.

One client in particular who is so medicated ... to even to get him to walk a half-a-block from the hotel here after he's taken his morning medication is a big deal ... they're so medicated just to even moderately combat the symptoms.

Prioritization of Mental Health Treatment.—Participants also talked about how the treatment of schizophrenia symptoms was their priority. The encouragement of physical activity was an ancillary treatment recommendation for staff at all three facilities. Once clients were stable, physical activity encouragement was considered. A case manager talked about the prioritization of treatment goals:

If the person has no place to live, and hasn't been on medication for three weeks, has an abusive boyfriend ... Those are the things that like we're targeting ... as I review treatment plans, getting more physically active is not usually on there,

Another participant described the importance on focusing their treatment recommendations on mental health issues for older adults with schizophrenia:

They could be doing well for a good while, and then they'll have a break, right? And then it takes longer for them to come back to baseline, and so that is when I'm looking at other things, not the exercising.

Role Models and Rewards

The participants described their impact on patients' involvement in physical activity. In the next section, we will illustrate the importance of role models and rewards with the following: meeting clients at their level, motivation techniques, and no physical fitness ethic.

Meeting Clients at Their Level.—Staff discussed how they cater to patients to promote activity, tailoring their behavior and approach to patients' specific needs.

... There's some exercise that they don't like, so I say, okay, well, do it while you're sitting there, just stand here and go like this, or move your feet, or walk in place while you're sitting down. You don't have to get up and do it, but don't just sit there.

At the locked facility, staff talked about how their level system could facilitate activity because it encouraged meeting clients at their unique level of function. A level system that ranges from four to one is in place. Clients increase their level based upon their participation in the program and improvement in their level of independence.

The level system is certainly built around the idea of meeting the client where their actual functional level is. If they're too preoccupied and disorganized to remember it's time for breakfast, we go remind them it's time for breakfast, and if necessary, we escort them to breakfast.

Often, as clients progress through the level system, they also become more physically active due to the benefits associated with increased levels, such as going on outings.

The staff at the locked facility also discussed how their entire program is based on meeting each patient's individual needs.

Because what's going to work with a developmentally disabled guy who has psychosis is going to be different than a vet who has PTSD and doesn't have auditory hallucinations.

Many of the participants emphasized the importance of an individualized activity program in order to assure client participation.

Staff at all three recruitment sites talked about the motivational aspect of groups for most of the patients. However, staff also discussed how some clients were reticent to join groups and participate. For those clients, a one-on-one format was more effective

If they don't respond in like group settings, we may meet with them one-on-one and try to work with them that way.

A participant from the locked facility talked about how she tries to motivate some of the sedentary patients to make small steps toward becoming more active.

We have people here who lay in bed ... sometimes for a long time, and so I try to have little talks with them to kind of say ... it's not good to lay in bed all the time. Why don't you just go for a walk once a day down the hallway, or something like that, or try to figure out why they're not getting out.

A participant at the transitional residential facility talked about how she individualized walking recommendations to each patient based on their individual health issues and how this approach had been successful at getting the patients to walk consistently for several weeks.

And I don't push them walk that time the other one's doing. I just tell them, okay, you want to walk five minutes, that's okay, but I tell them walk with nothing in your hands ...

Staff described how some of their older patients' physical activity levels were limited by previous injuries and pain. One staff member recalled a scenario when a patient was having difficulty on a walk due to physical limitations.

[Patient] starts to hurt, so I said, okay, we'll stop, because even within the slow group, there's even slower people. That's who I deal with, is the slow-slow people.

The patient was able to continue with a slower walk because the staff member tailored the intensity of the walk to meet the patients' needs.

Motivation Techniques.—Staff at all three sites talked about the importance of motivation.

If you're ever going to actually do a program, would be the motivational issue. What's in it for me? Why should I do that, you know? That's so much the mentality. Playing basketball, jogging, doing sit-ups, it's not part of the equation. It's not even on the list.

Staff indicated it was rare for patients to be intrinsically motivated to be active. Staff described that motivating clients to do any kind of activity, including basic ADLs, usually involved the staff being upbeat and positive about the activity and working together with other staff.

Sometimes it's being kind of animated and kind of up ... you just go, come on, it's time for ADLs, here, I'll help you do this, and I'll help you do that. Other people, it's like pulling teeth—we just—we'll kind of tag team.

Staff also engaged in the activities that they wanted patients to engage in:

We're not just sitting on the periphery. We're in there dancing and getting patients to dance.

Motivation was often inspired with tangible incentives such as food, coffee (described as "liquid gold"), and cigarettes.

Or they'll ask for food. Or will you give me an extra cigarette?

Staff talked about how outings were a great way to get patients to be active. The patients were motivated by the things they could see and do on outings. Similarly at the locked facility, participants talked about how coffee motivated clients to go out on a walking pass.

Participant 1: They used to go to the Starbucks up by the police station up there, which is ... easily a mile away.

Participant 2: You know? They never think twice about it, because they're usually wired on caffeine coming back. Getting out there was the hard part.

Often the type of rewards that were motivating could be very simple, like the use of praise.

What you can do is simple things too, like just a lot of praise, and a lot of like congratulations, you're doing great, and people respond really well to a lot of that.

Some staff also suggested rewards that did not involve money or food could be effective.

If you had some other additional motivators ... [if] all of the people who attended all the sessions got a ticket to the movies.

Or even just simply getting to know the client and directly prompting activity could be motivating:

Staff coming in and actually kind of talking to the person ... Sometimes it's the initial getting out of bed, so I—sometimes I say just put your feet on the floor ... The next—and then you lean forward, and sometimes people do it.

No "physical fitness ethic".—Some staff discussed ways that they could promote physical activity within the program yet they felt this change would be a difficult one to institute.

We're not working them to death here, and there's certainly room to grow in terms of like a morning walk every morning. And staff are kind of resistant to having to staff that, because ... it's a change for everybody, and change is hard.

In addition, some of the staff were described as not being ideal role models for physical activity.

100 percent of the staff don't have a physical fitness ethic going on either ... You have some who really would like to get you out there moving, and others that would rather sit back and just watch the day go by.

Furthermore, some staff were described as allowing clients to remain sedentary.

We don't push them on weekends, because that is their time, so technically, they can do what they want. If they want to chill all day, that's okay.

Institutional Factors

The participants described key institutional factors that influenced physical activity and these included living situation, lack of geriatric programs, and structure.

Living Situation.—City life can limit activity because patients can easily access any daily services needed by walking just a short distance.

I think that the environment here is limiting. For example, people who don't have any money, but live in rural areas have to walk a lot further to get their basic needs. Whereas here, the [stores] are all a block, half a block from your hotel room.

Patients living in locked facilities were also limited in the types of activities they did and when they engaged in activity. For example,

In an institution where you can't do your own thing all the time, when and where, and how you want to do it. So you have those institutional factors ... Like go to the gym, or go play baseball, or go play tennis.

The actual building structure of some treatment programs limited activity. One of the community treatment center's main meeting areas is located on the third floor of the building. Patients can only access the center by elevator due to security restrictions.

Lack of Geriatric Programs.—Many of the participants discussed the aging of their patients.

It used to be that people—that we had an age cap, and that people at 62, or whatever it was, graduated from [program], and that's no longer true, I think, primarily because there's no longer those programs for them.

Participants that were concerned about the lack of geriatric programs talked about their belief that the older patients may be more active if they could be in programs that were focused only on older adults.

Structure.—All sites encourage activity through building some degree of activity into the daily routine or the therapeutic milieu. For example, staff

at all three recruitment sites described a weekly walking group. For clients at the locked facility in order to earn a weekend pass, the residents have to show that they are able to responsibly go on the morning walk. A staff member at the locked facility described their walking group.

... to start earning passes and being able to go out on outings and things is they need to go on a morning walk first, so that's a big motivator to get them to get up and get—be physical. And other times, they just like to get out.

A staff member at the intensive case management program indicated part of the success of the walking group was the integration into the program.

Well, and so it's just—it's just part of the milieu activity.

A staff member at the assertive community treatment center echoed the thoughts of staff at the locked facility when they described why some patients participate in activities.

If you had it here, some people will just go, because it's something to do.

The staff talked about how often patients will show up to an activity merely because it is scheduled and it provides routine to their lives. Staff also indicated that if a group is going to be successful, it needs to be a part of the schedule. For example,

Every Friday at 9:00 we have our community meeting ... And the clients move the chairs—it would probably be that kind of attitude and get-together, you know, remove things, and it's exercise time.

Also, at the transitional residential treatment center, staff described how the structure of the facility schedule provided an opportunity to engage clients in activity.

We have like that group once a week where we go on a coffee walk. sometimes we'll just do walks around the neighborhood, so getting them to participate in that. like I'm actually starting to have more activity in my groups, like physical, like dancing ... and the clients are really digging it, so I'm probably going to keep doing it.

Other activity groups described included dancing and even the use of active play video games:

Yeah, when the Wii is the activity, it's like when we do karaoke, some people who really gravitate to that come do it.

It was also indicated that some activities are interesting to participants merely because of novelty, such as the video game system. At the transitional residential facility, the structure of having daily chores could facilitate activity. For example, each resident is responsible for cooking one meal a week. Just the process of cooking and cleaning up was viewed as a type of physical activity.

They're to cook one meal a week for the house. So they got to come up and to organize their—what to cook and chop, and do everything that needs to be done. So the table, do the dinnertime chores.

Safety

The participants talked about the need to consider patients' safety as a barrier or facilitator to physical activity. High crime environments and physical safety were described as key safety aspects to keep in mind.

Crime.—Urban environments present multiple barriers to activity. Crime was one aspect of urban living discussed by staff.

This is a client who's over 55 when I was covering the on-call, who, as a stress reduction, we were talking about the exercise, like going for a walk. And she's like, I'm afraid to leave my room. It's like the evening, she stresses out. I'm afraid to leave my hotel room, I'm not going to walk around the hotel, because it's cigarette-laden, and everyone keeps asking me for money, you know, there's limiting factors just by nature.

Physical Safety.—Staff indicated the importance of safety above all else when considering how to increase physical activity in patients.

It's number one ... You're not going to recover if you injure yourself in the process of becoming recovered.

Participants also talked about starting clients off with activities that are “not harmful to them” and the need for some patients to earn the trust of staff to do certain activities (such as walks outside the facility). Participants discussed that starting patients off with simple activities also reduced the patients' own safety fears, such as falling. For example, a participant at the locked facility described how they involve some patients in dances safely:

A person might fall, because they're not judging right. They get touched by the dancing spirit, and then we have to help them to, well, don't back—backwards.

Discussion

Four categories of barriers and facilitators to physical activity were identified: mental health, role models and rewards, institutional factors, and safety. A common factor was the key role that staff play both in role modeling and motivating physical activity. The symptoms of schizophrenia were frequently discussed as both a barrier and facilitator to activity. Institutional factors and safety were critical factors to consider for physical activity promotion.

Of the six studies (Archie et al., 2003; Beebe & Smith, 2010; Daumit et al., 2005; Fogarty & Happell, 2005; McDevitt et al., 2006; Weissman et al., 2006) that have examined the barriers and facilitators to engage in activity in young people with schizophrenia, factors that facilitated engagement in physical activities were identified. Common factors across these studies and our study were exercise facilities with a motivating atmosphere and individualized programs. Physical activities that participants took part in across the studies included walking and other traditional exercise activities. However, activities such as working, volunteering, and cross-word puzzles were also discussed. In our study, staff also discussed that patients were sometimes active through activities not traditionally thought of as exercise (such as doing chores).

Multiple barriers to engage in activities that promote physical activity in younger people with schizophrenia are discussed in the literature. Similar to our results, common factors across these studies were poor motivation, side effects of medications, social barriers, inactive staff, unsafe urban neighborhoods, fear of pain, schizophrenia symptoms, and poor access.

Unique factors found in our study include the motivating aspects of schizophrenia symptoms, how the physical structure of treatment programs could be a barrier, and the priority of mental health treatment over recommendation of physical activity. The staff indicated that schizophrenia symptoms could be both a barrier and facilitator to engage in physical activity. Clients that were extremely depressed were reported as very difficult to motivate to take part in groups, whereas some patients were reported as using physical activity as a way to deal with schizophrenia symptoms. Our study also found that even the physical structure of a treatment facility could influence activity. Facilities that did not allow patients to use the

stairs put forth another barrier to physical activity. Participants made it clear that their priority is to treat mental health symptoms first and to assure patients are stable psychiatrically before recommending physical activity.

The few interventions that targeted health promotion in the older adult population with schizophrenia have relied on aspects of social cognitive theory (SCT) as a theoretical framework (McKibbin et al., 2006). Our findings also suggest that aspects of SCT may be a useful framework for the design of a physical activity program. SCT is consistent with the beliefs of symbolic interactionism in that the individual engages in a transactional relationship between the social environment and the self to produce behavioral effects (Braungart & Braungart, 2003).

Role modeling is one component of SCT that may be especially helpful for the design of physical activity interventions. A role model demonstrates behavior that is then perceived by the learner (Braungart & Braungart, 2003). The reinforcement of behavior, the learning situation, and the appropriateness of subsequent situations where the behavior is displayed is said to affect the learner's performance (Braungart & Braungart, 2003). The participants in our study provided examples of how they could promote physical activity in their patients by being physical activity role models. However, the participants were often concerned about the general lack of physical activity role models at the facilities.

Self-efficacy, another key construct in SCT, is also useful to consider in the promotion of physical activity. Bandura (1989) argues that among the mechanisms of self agency, none is more central than people's beliefs about their capabilities to exercise control over events that affect their lives. This self-efficacy can be described as the confidence a person has to perform a behavior and overcome barriers to performing that behavior (McDevitt et al., 2006). Self efficacy is thought to influence what activities the person engages in, how much effort is expended, and to what degree the person will persist while facing barriers (McDevitt et al., 2006). The participants in our study provided multiple examples of how they encourage the physical activity self-efficacy of patients successfully through meeting clients at their level and providing tailored motivation techniques.

The participants continually mentioned their focus on a patient's mental health needs. At times, schizophrenia symptoms could promote and or

block physical activity. SCT does not account for the dialectical engaging and disengaging impact of schizophrenia symptoms. One framework that may facilitate an understanding of the relationship between symptoms and physical activity is the UCSF Theory of Symptom Management (TSM; [Humphreys et al., 2008](#)). The TSM comes from the belief that effective management of a symptom or group of symptoms demands that the symptom experience, symptom management strategy, and outcomes all be considered. Symptom management is viewed as a dynamic process that is modifiable by both individual outcomes and the influences of the nursing domains of person, health/illness, or environment. Physical activity may be an effective symptom management strategy for the symptoms of schizophrenia.

The structural restraints faced by the older adult with schizophrenia could be exercise facilities that are difficult to access or a home environment that makes physical activity a low priority. These structural restraints are not accounted for by SCT but, according to our study, are important considerations in the design of a physical activity intervention. A recent survey of researchers with expertise in aging and physical activity indicated that more research is needed on the physical environment, especially in regards to safety, transportation, access, and alternative environments such as in-home programs ([Hughes et al., 2011](#)). In addition, the survey also revealed the need for more research with understudied populations such as persons with mental illness as well as the impact of physical activity on the symptoms of mental illness. Our findings progress the field of physical activity research by providing more details to these understudied aspects of physical activity in older adults with schizophrenia.

Limitations

Our study has several limitations. We interviewed staff in one limited geographical urban area. Including other locations might reveal the impact of different weather conditions, socioeconomic backgrounds, and available resources. Only mental health staff were interviewed; so, the results do not necessarily reflect the views of older patients with schizophrenia. Despite the limitations, this is the first study to our knowledge to explore qualitatively the staff perceptions of factors that contribute to engage in physical activity in older adults with schizophrenia. The staff

perspective is particularly important in order to design and implement interventions effectively within the constraints of the mental health system.

Practice Recommendations

Current recommendations for older adults are to engage in moderate intensity physical activity 150 min each week ([U.S. Department of Health and Human Services, 2008](#)). Building activity time into the treatment programs can help older adults with schizophrenia to reach that goal. Simple walking groups may be an easy and cost effective way to start. Physical activity may work as a symptom management technique. Other researchers indicate that older adults with schizophrenia express a desire to have a variety of techniques to deal with the symptoms of schizophrenia ([Shepherd et al., 2010](#)). For example, exercise video games have been effective in improving depressive symptoms in older adults with subsyndromal depression ([Rosenberg et al., 2010](#)). Clinicians and administrators should consider the incorporation of physical activity in treatment programs. Specifically, staff education regarding the use of physical activity for symptom management and even the importance of staff role modeling physically active lifestyles is key. In addition, education about the use of motivation to be physically active is also critical but attention should be given to the type of motivation provided. Patients may respond well to simple praise or the reward of a healthy snack. However, the use of unhealthy rewards, such as cigarettes, should be avoided.

It may be difficult if not all together impossible to change the physical layout of a facility but careful consideration should be given to alternative workout environments or ways to promote physical activity within the constraints of the facility or a patient's home such as with the use of exercise video games.

Future Research

Future studies should explore the perception of patients to better understand what they view as their unique barriers and facilitators to activity. In addition, directly observing the environments where patients are treated and or living may help to design an optimal physical activity intervention. Pilot testing different types of remuneration to find the ideal motivation techniques would also help with the design of future interventions.

Understanding the specific symptoms that are a barrier or facilitator to activity will inform the design of future interventions.

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