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Barriers and Facilitators of a Healthy Lifestyle Among Persons with Serious and Persistent Mental Illness: Perspectives of Community Mental Health Providers

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Abstract

The investigators used qualitative methods to examine perspectives of community mental health professionals on obesity management in adults with serious mental illness. Data from 5 focus groups were subjected to constant comparison analysis and grounded theory. Results showed that influences at individual, social, community, and societal levels impact development and maintenance of obesity. Mental health providers desired a collaborative relationship with providers of health promotion program staff. They also believed that frequent, group-based health promotion should include participation incentives for adults with SMI and should occur over durations of at least 6-months to achieve improved health outcomes for this population.

Keywords

Health; Obesity; Psychiatric

The prevalence of obesity among people with serious mental illness (SMI) is approximately 1.5 to 2.0 times higher than it is among the general population (Carney, Jones, & Woolson, 2006; Dickerson et al., 2006; Fagiolini, Frank, Scott, Turkin, & Kupfer, 2005). Evidence for this relationship comes from both descriptive studies of psychiatric populations (Fagiolini, et al., 2005), as well as comparison studies using matched control samples (Carney, et al., 2006; Dickerson, et al., 2006). For example, obesity rates among the general population have been shown to be 20% for men and 27% for women, compared to 41% for men and 50% for women with SMI, respectively (Dickerson, et al., 2006).

A number of factors have been found to contribute to obesity among people with SMI. One area that has received considerable clinical attention in recent years is the metabolic effects of second generation antipsychotic medications including weight gain, hyperlipidemia, and hyperglycemia (Newcomer, 2005). People with serious mental illness also appear to have an innate risk for metabolic problems relative to the general population, as evidenced elevated rates of visceral adiposity and hyperglycemia in drug-naïve patients (Spelman, Walsh,

Sharifi, Collins, & Thakore, 2007; Thakore, Mann, Vlahos, Martin, & Reznick, 2002). Persons with serious mental illness are known to have less healthful diets (i.e., high in fat and low in fiber; Brown, Birtwistle, Roe, & Thompson, 1999; Elmslie, Mann, Silverstone, Williams, & Romans, 2001) and to engage in less physical activity than those in the general population (Brown, et al., 1999; Elmslie, et al., 2001).

For adults with serious mental illness, as well as adults in the general population at large, the consequences of obesity are severe. Obesity is a leading cause of death in the United States, and a recent, well-controlled study estimated that obesity was responsible for nearly 112,000 preventable deaths in the year 2000 (Flegal, Graubard, Williamson, & Gail, 2005). Obesity is associated with increased medical expenditure among those with serious mental illness, even when demographic characteristics and medical comorbidities are controlled (Chwastiak et al., 2009). Obesity is also a leading risk factor for cardiovascular disease (Taylor, Kronfeld, Ferrante, Wilson, & Tiegs, 1998), which is the number one cause of death among people with serious mental illness (Colton & Manderscheid, 2006). Additionally, obesity is associated with diabetes, hypertension, and significant reductions in quality of life and health-related functioning in studies of adults with SMI (Dickerson, et al., 2006; Strassnig, Brar, & Ganguli, 2003).

Numerous intervention programs have been developed and tested for their efficacy in reducing obesity in samples of adults with SMI. Several reviews have canvassed this empirical literature base and found promising results, with the caveat that many of the studies suffered from methodological problems such as small sample sizes, high dropout rates, and non-experimental designs (Faulkner, Soundy, & Lloyd, 2003; Lowe & Lubos, 2008; Werneke, Taylor, Sanders, & Wessely, 2003). Furthermore, some of these studies have been conducted in in-patient settings, casting doubt on their generalizability (Wu et al., 2005). Nonetheless, randomized controlled trials conducted in community settings have found encouraging results with programs consisting of several months of weekly or biweekly psychoeducational groups (Brar et al., 2005; McKibbin et al., 2006; Sajatovic et al., 2011).

It is important that interventions designed to reduce obesity and other metabolic consequences among people with serious mental illness are conducted in settings that are accessible and palatable to this population. In the primary care system, individuals with serious mental illness may be at a disadvantage, with studies showing lower rates of preventive medical care (Druss, Rosenheck, Desai, & Perlin, 2002; Frayne et al., 2005) and higher rates of perceived care-related barriers (Dickerson et al., 2003). Additionally, studies have shown that primary care providers can be uncomfortable dealing with clients who have a seriously mentally illness and may not view specialized care as their responsibility (Lester, Tritter, & Sorohan, 2005). Literature suggests that adults with serious mental illness also respond better to health care services when they are provided in an integrated, psychiatric-clinic-based (e.g., community mental health) setting than when they are provided in primary care (Druss, Rohrbaugh, Levinson, & Rosenheck, 2001). Community mental health may be an ideal setting to deliver health promotion services because it is a point of frequent service contact and providers are familiar with the need for and struggles with making behavioral changes within the context of one or more mental disorders.

In order to develop interventions that serve the needs of adults with serious mental illness and which can be delivered by community mental health providers in community mental health settings, there is a need to understand the facilitators and barriers, as well as important intervention ingredients from the perspectives of providers working in the community mental health setting. The objective of the current study is to characterize the facilitators, barriers, and important intervention ingredients from the provider perspective.

Method

Design

We utilized data gathered from focus groups to gain an in-depth understanding of the perspectives of community mental health care providers on health behavior and health promotion strategies in adults with serious mental illness. Purposive sampling, namely criteria sampling, was used to identify participants that fulfilled basic criteria for the sample (Kuzel, 1999). Individuals who met the following criteria were invited to take part in focus groups held at the staff member's respective community mental health center: (1) at least 18 years of age, (2) holding a professional position requiring regular therapeutic interaction with adults with serious mental illness, (3) employed by a community mental health center, and (4) willing to provide informed consent.

Procedures

Participants were recruited from five local community mental health centers in Wyoming and Colorado. A description of the study was provided to the directors of the adult treatment team in each community mental health center. The director then contacted staff members via email, provided them with a description of the study, and invited them to participate. The date, time, and location were given to all participants. Prior to initiating the focus groups, the study was re-explained and informed consent obtained from all participants. Team members were instructed to identify a pseudonym for use during the meeting, and each meeting was audio taped for later analysis. Each provider was compensated 20 dollars for their participation.

Focus group questions were designed to identify needs and barriers for engaging in and maintaining healthy lifestyles among adults with serious mental illness (SMI), as well as to identify useful elements to include in a healthy lifestyles intervention. Specifically, providers were asked to talk about the following: (1) the state of health care for adults with SMI, (2) health challenges for the SMI population, (3) barriers and facilitators to the maintenance of health lifestyles in people with SMI, and (4) components of a health promotion program that would be feasible and support existing services within a community mental health setting. Although a semi-structured manuscript was used as a guide to ensure that critical topics were covered in each group, questions did not dictate the course of discussion. Flexibility was maintained to allow providers to discuss topics of perceived importance. Each focus group lasted 60 to 90 minutes and was conducted by a moderator with experience in focus group facilitation. A graduate student observer attended each audio-taped group to take notes. Interviews were transcribed verbatim by research assistants trained in qualitative transcription. All transcripts were checked against corresponding

audio-recorded interviews for accuracy. Data saturation (i.e., the point in data collection and analysis when new information produces little or no change to the codebook) was reached at five focus groups (Nixon & Wild, 2010).

Data Analysis

Data for this study were collected in 2010. Grounded theory was selected as the methodological foundation for this study. This method was chosen for the present study because little is known about community mental health providers' perspectives about health promotion for adults with serious mental illness. Narrative data were coded and categorized using guidelines from Corbin and Strauss (Corbin & Strauss, 2008). Specifically, narratives were read using open-coding methods to identify significant occurrences or ideas within the text. Next, areas of text were classified into codes, which were added, deleted, or refined during weekly team meetings. A codebook was developed for use in further analysis according to guidelines provided by Guest and MacQueen (1998).

Rigor was established by evaluating the interrater reliability with a percent-agreement, paper-pencil approach process described by Guest & McQueen (2008). Moreover, the authors consider 85% or greater to be good agreement. Initially, two coders independently coded the same selected segment of text (e.g., pages 5 and 10 of an interview transcript). An overall percent agreement of 89% was established, inconsistencies were addressed by the team, and revisions were made to the codebook. Finally, coders integrated and refined the themes during the selective coding phase of analysis in order to create theory out of data (Corbin & Strauss, 2008).

The present study received full-board approval by the Institutional Review Board at the University of Wyoming. There are no known conflicts of interest for any of the authors. Moreover, all authors certify responsibility for this manuscript.

Results

A total of 36 providers attended one of five focus groups held in Community Mental Health Centers in Wyoming and Northeastern Colorado. Providers were located in Cody, Wyoming (n=9), Cheyenne, Wyoming (n=8), Jackson, Wyoming (n=8), Laramie, Wyoming (n=6), and Fort Collins, Colorado (n=5). A majority of providers were female, Caucasian, and had a master's or other professional degree. The sample comprised licensed professional counselors (n=8), licensed clinical social workers (n=8), case managers (n=6), licensed psychologists (n=4), licensed psychiatric nurses (n=4), mental health administrators (n=2), as well as one psychiatrist, a student intern, and a peer specialist. Data were not available for one participant, as their professional role within the mental health center was unknown. Providers worked with people with serious and persistent mental illness for approximately seven years ($M = 7.2$, $SD = 7.2$). The average caseload for providers was 86 clients with serious mental illness ($M = 86.0$, $SD = 22.8$), and approximately seven clients with serious mental illness were seen per day ($M = 6.7$, $SD = 4.8$). Providers described their duties as filling the following service roles: deliver crisis intervention services (n=26, 74.3%), conduct individual psychotherapy (n=23, 65.7%), accompany into the community (n=23, 65.7%), teach daily living skills (n=21, 60.0%), coordinate client services (n=19, 54.3%),

interact with client family and friends (n=19, 54.3%), conduct group psychotherapy (n=18, 51.4%), teach medication management skills (n=10, 28.6%), conduct alcohol and drug treatment (n=8, 22.9%), conduct physical exams (n=3, 8.6%), and administer medication (n=6, 17.1%).

Providers who attended the focus groups reported that they frequently engage in discussions with their clients about healthy lifestyles. A majority of providers indicated that their clients initiate conversations about health during their meetings, and nearly all agreed that healthy lifestyle programming would be a natural extension of the supportive and therapeutic programming provided in the community mental health setting. Despite these interactions around health-related issues, providers reported that it is difficult for their clients to adopt healthy lifestyle behaviors (i.e., diet, exercise, and medication adherence). These providers identified several factors that they believe to influence whether their clients would adopt a healthy lifestyle. These factors were classified into barriers and facilitators across several categories of influence including the individual, the immediate environment, the community, and society as a whole. The providers then suggested strategies for health promotion program in their clients with serious and persistent mental illness.

Providers Perspectives about the Levels of Influence on Clients' Health Behavior

The individual—The participants identified several individual-level influences on the lifestyle of their clients, including the negative effects of lack of knowledge about physical health, mental health symptoms and cognitive functioning, the side-effects of psychiatric medications, and the positive effect of personal initiative. Many community mental health providers identified that their clients had poor knowledge in several areas including the metabolic diseases for which they are at risk, the interaction of physical and mental health, and the general health benefits of healthy lifestyle. They also noted that their clients lacked information about what modifications were needed to engage in a healthy lifestyle. For example, they reported that many clients attribute problems with weight to the effect of their medications without recognition of the contribution of poor diet and sedentary lifestyle. They also noted that many clients lack information about healthy food choices and physical activity, yet they indicated that providers believe that improving their clients' knowledge about what constitutes a healthy diet and adequate physical activity are important to behavior change. Several quotes across focus groups describe lack of knowledge about healthy lifestyle among adults with serious mental illness:

It seems like there is a low insight into the connection between everything. They want to blame everything on meds. The reasons they are overweight is because of the meds, 'That med makes me fat. I've gained so much weight on that med.' You hear that a lot. I think a lot of it is low awareness or low insight into how a healthy diet or health-related concerns can make a difference. I think they don't connect those dots very well. (Doctoral Intern, Focus group 3)

I think it is not knowing any different. If you have lived that way your whole life, then you don't know any different. I'd say, in some cases, it is a matter of negative symptoms but not most of the time. (Psychiatrist, Focus group 1)

Many of them don't know how to do that [grocery shopping] in a healthy way. So, I think that once they realize that somebody is going to listen to them and help them through all of those struggles, they can eventually get there and do it on their own, but education is huge because some of them don't have any idea. (Case Manager, Focus group 5)

I would say the majority of people that I see, it takes a lot of education. There's a lot of education about basic wellness. Drinking enough water during the day. Not doing fast food all of the time. Spending fifteen minutes taking a walk outside their apartment. As opposed to...a lot of our clients live really sedentary lifestyles (Adult therapist, Focus group 2).

If someone is pre-diabetic or diabetic, I don't know if their doctor is, well, how much education they get. But even understanding that it's not just sugar and candy that spikes your blood sugar levels, but that it's potatoes and white rice and starches, and all that kind of thing (Licensed Professional Counselor, Focus group 2).

Providers agreed that side-effects of some medications do affect energy levels which in turn affect their ability to partake in healthy behaviors. One provider noted that, and others agreed, *"Meds just seem to wipe them out. It is like motivation levels go down, energy levels go down, it's like existence is a challenge of its own, without existing well.*

"(Licensed Professional Counselor, Focus group 2) However, providers did not uniformly agree that antipsychotic medications necessarily result in weight gain. Some providers reported that they have had clients who engage in a healthy lifestyle and have not experienced significant weight gain, regardless of antipsychotic treatment regimen (e.g., treatment with medication with a high liability for weight gain).

Social environment—Barriers were also identified in the immediate environments of the participants' clients as well as interactions among influences in their clients' immediate environments. For example, providers consistently reported that the social environments (e.g., family) could have a negative impact on health behaviors of their clients. Specifically, the lifestyle and health habits in the clients' families of origin are often adopted and maintained by the clients. For example, several providers concurred that, *"If they (clients) grow up in a family system where that [healthy eating and exercise] has never been a part of it, which I think a lot of them do, then I think they 're more likely to never engage in healthy living."* (Licensed Professional Counselor, Focus group 2) Providers also indicated that few of their clients have consistent and ongoing interactions with their family and that these family members may not be able to interact with providers in supporting positive health changes in people with serious mental illnesses. Clients' peer network was also seen as a potential barrier. One provider who conducted health education within the community mental health center noted, *—They sort of stick to their tribe... There's a lot of smoking, a lot of overeating, a lot of cigarettes, and coffee, and drugs. It's kind of what they do. Someone who was living a healthy lifestyle in that group would seem pretty eccentric.* *" (Licensed Professional Counselor, Focus group 3) However, peers also emerged as a potentially powerful influence on health. For example, peer partnerships were perceived by*

community mental health providers to increase the likelihood that their clients will engage in healthy behaviors, such as going for walks or attending a community recreation center. One group of providers also mentioned that, when their clients are exposed to peers who are healthy individuals of an older age, it expands their clients' perspectives on their own longevity and increases their clients' hopes for the future. *"They do know that if someone is identified as another client and that they 're struggling probably in a similar way, 'Oh, but they 're succeeding,' or 'They 're doing well, " or "They've been working out four days a week, I wonder if I can go with them"* (Licensed Professional Counselor, Focus group 2).

In addition to peers, community mental health providers also perceived that they, themselves, have an important role in enabling healthy lifestyles in their clients. Specifically, providers reported taking the role of a support person, educator, guide, and advocate. Providers indicated that they spend time discussing health with their clients during their treatment sessions. They take opportunities to remind their clients to eat frequently, drink water, cut back on smoking, adhere to medication regimens, and establish daily routines. Several providers noted similar experiences with guiding healthy behavior. For example, one provider stated, *"I talk to them about it every single time... 'What's your diet like? Are you getting out of the house? Are you walking? Are you getting any sunshine?"* (Case Manager, Focus group 1) Providers also reported that they promote health in their clients by attending primary care visits with their clients, assist their clients' communication efforts, and advocate for their clients with other health care providers. One provider stated, *"There are some clients who absolutely have to have someone at the doctor with them, and our nurses will often travel to the hospital or the doctors with them."* (Mental Health Administrator, Focus group 1)

Community and social policy—At the community and social-policy level, providers consistently identified structured environments, transportation programs, poverty, and limits in supportive programs as barriers to a healthy lifestyle for their clients. They reported that their clients have few places to walk or ride a scooter or bike with limited curb or shoulder access, particularly in the winter months when snow and ice cover available surfaces. Many providers also noted that, in their communities, there are few transportation services available. Although some communities have senior citizen buses available to ride, a lack of financial resources among their clients limit the ability of those clients to pay one or even two dollars a day to travel to a walk-able park:

It's hard enough to get to the gym, but if you have to take a bus to get to the gym, that's another barrier (Adult Therapist, Focus group 3).

Transportation is a major issue, in town and out of town (Clinical Social Worker, Focus group 2).

Public transportation almost does not exist...we do have a senior citizen's bus that runs, but they have to pay. They [people with serious mental illness] are on such a limited income that they don't have a dollar or two to spend on a ride. (Adult Therapist, Focus group 5)

In addition to lack of transportation, a lack of healthy food availability was frequently viewed as a barrier to healthy lifestyle. Providers reported that their clients choose food

options that are close to them and that are inexpensive or free. Those foods are often fast or convenience foods or high calorie foods such as items available from local convenience stores, fast food restaurants, or from local food banks. Providers indicated that foods in their local food banks are non-perishable and, as such, are either canned or high in fat and sugar. They also noted a lack of choice in these food sources.

What's affordable, or free in the case of the food bank, are very starchy, high calorie foods. They do it [get food from the food bank] because it doesn't occur to them to do anything else. (Clinical Social Worker, Focus group 3)

They do the best they can at the soup kitchen, but they are not going to ask them, 'Can you please make me a...' They try to honor dietary requests if someone has diabetes or something - but they [people with serious mental illness] are just grateful to be there. They don't have a lot of choice. (Licensed Professional Counselor, Focus group 2)

Some of them if they are paying their meds they don't have enough money to pay for some of the healthier foods. You know fresh vegetables and fruit is more expensive than spaghetti so the kind of the pastas and sugar foods. (Mental Health Administrator, Focus group 4)

I think when people are in residential care, the food that comes in a residential comes from the food bank, so they 're stuck with such crummy food. They gain a lot of weight, generally when they 're in residential; that's what we have. We have to go to the food bank to keep that stocked. So that's a money issue... you get out of group and you can go have a snack and you can either have a bag of chips or a bag of cookies. (Adult Therapist, Focus group 3)

Finally, providers also identified community-level supports that facilitate healthy lifestyles in their clients with serious mental illness. For example, providers identified that donation programs that provide assistance with food availability and access to physical activity equipment not only improve the likelihood that participants will adopt a healthy lifestyle, but also improve the morale of their clients. Transportation services, in particular, were identified as a facilitator by improving access to other resources in the community, including community recreation centers, grocery stores, and medical or dental appointments. Some communities have specific programs that facilitate access to physical activity equipment. A provider commented, *"One exception is the bike swap in town where they can volunteer to get a bike, and then there are a lot of people who bike, you know, pretty much everywhere because it is pretty easy to do around here..."* (Adult Therapist, Focus group 3)

Societal beliefs and values—Many providers acknowledged that stigmatization of people with serious mental illness, as well as stigma that is internalized by persons with serious mental illness, themselves, may hinder their efforts in obtaining a healthy lifestyle. For example, community mental health providers indicated that other providers without mental health expertise may discount physical health symptoms reported by people with SMI. They also indicated that people with serious mental illnesses are reluctant to persist with their complaints and would “shut down” when interacting with a provider who did not seem to understand them. Additionally, providers shared that healthy behaviors, such as

physical activity, may be hindered by perceptions of stigma. Specifically, clients may feel conspicuous as a person with a serious mental illness and not feel like they belong in the community. Providers indicated that those feelings likely affect their clients' willingness to go to the YMCA where they may have free access to walking tracks, swimming pools, and weight training equipment.

I think they feel like they have a sign on them that says, "Look at me, I'm overweight," and "Laugh at me. " They feel embarrassed about going there and working out and like everyone is staring at them, really self-conscious about it. I think if they have someone else to go with them, it makes it a bit easier... (Licensed Professional Counselor, Focus group 2)

Paranoia. They already do not feel a part of the group. They don't feel, that awful word, "normal. " (Licensed Professional Counselor, Focus group 2)

Even if they could afford a gym membership, and then being self-conscious about the way you fear being viewed. Even if you could afford it, it might be very scary. (Adult Therapist, Focus group 3)

I think about clients going to the gym you know one thing would be money, but also feeling uncomfortable going to a gym would be a big barrier. (Licensed Professional Counselor, Focus group 4)

Health Promotion in Community Mental Health

Community mental health providers identified several important strategies for health promotion interventions with their clients with serious mental illness. Particular intervention targets included both community mental health providers and community mental health clients.

Sample quotes for suggested intervention features are shown in Table 1. At the individual level, providers identified several strategies for promoting health with their clients with serious mental illness. They indicated that the interventions should not be brief in duration, but long-term and delivered on at least a weekly, if not daily, basis. Providers stated that the programs need to be tailored to meet the needs of a range of clients - from simple and concrete for some, too sophisticated for others. Moreover, they nearly unanimously agreed that lifestyle education needs to hold meaning for their clients and needs to be rewarding and fun. They suggested that those delivering health promotion interventions in community mental health settings should look for opportunities to make the rationale for changing health behavior relevant to clients' lives as well as identify activities that would both reward and motivate their clients.

Providers indicated a desire for involvement in health promotion programming for their clients. However, they preferred having one individual other than themselves who is primarily responsible for delivery of a health promotion program. They uniformly wanted to have two-way communication between themselves and a health promotion program so that they would be informed about their clients' health promotion goals as well as the health education content that their clients are learning so that they can reinforce messages or incorporate the health goals into their overall therapy goals. For example, if a participant

was enrolled in a health promotion intervention, community mental health providers might set goals or assist in problem solving around program attendance and adherence to behavior change. Additionally, providers indicated an interest and desire to assist in removing barriers to healthy lifestyles by incorporating problem-solving and goals directed at barrier reduction in their own work with their clients.

Discussion

Views of community mental health providers on factors that influence healthy lifestyle in adults with SMI were consistent with social ecological theory (Bronfenbrenner, 1979). Social ecological models specify that intrapersonal, interpersonal, organizational, community, public policy, and societal beliefs and values can all influence health behaviors. At the innermost, intrapersonal level, providers identified that mental health consumers are not only concerned about their physical health, but also take initiative to engage their mental health providers in dialogue about health concerns. Participants in our study recognized, however, that their clients are also limited in their ability to take healthy actions by their psychiatric symptoms, poor cognitive functioning, physical health problems, and limited health knowledge. These observed patterns have been echoed in studies about the perspectives of individuals with serious mental illness and diabetes, in which respondents recognized that the stability of their psychiatric symptoms was a critical prerequisite to optimal diabetes self-care (El-Mallakh, 2006). Our work expands upon the work of El-Mallakh by identifying additional individual factors (e.g., cognitive functioning, knowledge, motivation) that may impact health behavior in adults with serious mental illness. Additional research is needed to better understand what adults with serious mental illness know about health risks and health behavior, what independent and collaborative impact that these factors have on health outcome, as well as how interventions targeting these individual-level influences should be modified for adults with serious mental illness.

Deficits or barriers identified by providers readily translate into psycho-educational and behavioral interventions. Providers agreed that interventions should target improvements in knowledge about illness through education and enhance motivation for health behavior change through modeling support and incentives. However, they also stressed that interventions should accommodate for a range of cognitive functioning and emphasize relevance to the consumers' personal lives (e.g., changing health behavior may mean the ability to reduce medications). Finally, in contrast to a trend toward brief intervention, community mental health providers stressed that interventions in this population should be ongoing with frequent, at least weekly or greater, contact.

Community mental health providers also identified several barriers and resources in the microsystem (i.e., the immediate environment of mental health consumers) that influence the adoption of healthy lifestyles. Influences identified at this level included the role of family, peers, and mental health care providers. The voice of consumers in El-Mallakh's study (i.e., El-Mallakh, 2007) pointed to family as a supportive resource (i.e., providing tangible resources such as money for food or rent). Providers in our study also identified family as a powerful and early source of information and modeling associated with health and health behavior. However, the family's influence was often perceived as negative

among providers in our sample (i.e., families may not model healthy lifestyle). In our own health promotion program for adults with serious mental illness and comorbid diabetes (McKibbin et al., 2006), family members provided a tangible source of support (e.g., bringing needed groceries); however, the support provided tended to undermine health promotion efforts (i.e., food provided was often non-perishable food that was high in sugar or simple carbohydrates). This distinction may be important because providers may be less likely to involve family in health promotion efforts, while adults with serious mental illness may view them as critical sources of tangible support. It is possible, however, that involving family in health promotion interventions by providing education about healthy lifestyle to the family may translate into more healthful supports for adults with serious mental illness. Future research should examine both consumer and family member desires for family involvement in health promotion interventions, as well as the degree of involvement desired.

In this study, community mental health providers indicated that they, themselves, are important sources of support for their clients (e.g., talking with clients about health behavior, advocating for clients in the primary care system). Mental health care providers also believed that the health promotion needs of their clients would best be served by a separate provider who could work within the community mental health setting who has experience in both mental health and physical health promotion. A majority of providers envisioned taking a supportive role for their clients involved in a health program, including assistance with problem-solving (e.g., addressing problems of food availability), support for intervention attendance, and enhancing client motivation (e.g., aligning therapeutic goals with health promotion goals). Future interventions may capitalize on these community mental health supports to optimize treatment outcomes.

At the community and societal levels, providers identified poverty and social programs (e.g., social security disability income, Medicaid, food donations, transportation) as important influences on health behavior - some positive, some negative. Similar to the work of El-Mallekh (2007), poverty was seen as a major limiting issue, permeating all aspects of life, including access to health promoting resources (e.g., food, physical activity, health care). While food banks assist with food availability, few fresh foods such as fruits and vegetables are available through these resources. Support from the community with transportation resources and free health club memberships were viewed as supportive of health promotion efforts, and providers indicated that their community mental health facilities assist with negotiating access to these resources for their consumers. However, at the societal level, stigma, particularly self-stigma, was an important identified barrier to health promotion. Even if access is available to health promoting resources (e.g., free gym memberships), mental health consumers may be less likely to use these resources due to fear of stigma and discrimination. At the societal level, garnering access to community resources and removing barriers to accessing those resources are viewed as important interventions for mental health consumers. Providers indicated that their mental health centers foster social support (e.g., group work outs) as a way of counteracting the effects of stigma.

In the present study, community mental health providers identified multiple levels of influence on the health behaviors of adults with serious mental illness. They also stressed that successful health promotion programs for this population be frequent and ongoing.

Additionally, health promotion programs should look beyond targets at only the individual level and include other levels of influence -consistent with an ecological model. Community mental health provider perspectives are supported by a recent qualitative examination of key stakeholders in a psychiatric hospital setting (Faulkner, Gorczynski, & Cohn, 2009). The authors noted that interventions should target the individual, group, and environment. They then conducted an uncontrolled pilot of an environmental intervention in an in-patient setting and demonstrated that modifying food availability (i.e., reduced portions, daily kilocalories, and access to high fat and highly refined nutrients) resulted in improved weight outcomes at both three- and six-month follow-up assessments. Another study incorporated the influence of positive peer models. Druss et al.'s (2010) peer-led intervention (HARP) resulted in improved health outcome (i.e., physical activity and medication adherence) among mental health consumers with chronic medical comorbidities. Our data also point to the need to address policy, particularly poverty. Consistent with previous research regarding poverty's impact on mental health, this study reiterates the importance of improving financial resources in clients' ability to live healthy lifestyles.

Our findings should be considered within the context of the study's limitations. Although a variety of mental health professionals participated in the focus groups, our sample is limited in the number of participating psychiatric mental health professionals. Data were also collected in the Rocky Mountain region, predominately in Wyoming, potentially limiting generalizability of our findings to this region. Because our sample's sociodemographics are largely Euro-American, and the client population served is also largely Euro-American, the perspectives of community mental health providers (i.e., on barriers and facilitators to health promotion in adults with SMI and important intervention components) may not generalize to groups of persons with serious mental illness who are of other ethnic/cultural origins.

Regardless of these limitations, this is one of the first studies of our knowledge that explores the barriers and facilitators to living a healthy lifestyle encountered by people diagnosed with a SMI from the perspective of their mental health care providers. The present study adds important information regarding important aspects of intervention format and delivery, as well as client barriers that should be addressed in health promotion interventions delivered within community mental health settings.

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Table 1**Suggested health promotion intervention features**

Intervention Feature	Quotes From Participants
	“Well, we see a lot of our clients going to their AA meetings, you know, at least daily. Those are the groups who really are enthusiastic. They’re not groups exactly, but those are the things they do that they really have enthusiasm for, keeps them engaged at a level that weekly groups just don’t seem to do.” “If you are giving things to do, assignments to do and homework, (you need to meet) on a daily basis...in two days from now they are not going to remember and they are not going to try it.” (Focus group 1, Psychiatric Nurse) “When they see somebody...I have one participant who comes in once a week and he’s always starting over with... ‘Now what was your name?’ and ‘I’m sorry.’ There’s a feeling like he doesn’t know them and they don’t really know him. Whereas for me I see them more days than not...I am part of the group. I am part of it all.” (Licensed Clinical Social Worker, Focus group 3)
Frequency	“Well, it needs to be some sort of daily... either where they’re reporting to somebody or somebody is checking on where things are. Because if we see people once a week, or every other week, or every three weeks, it isn’t immediate enough for them to make these kinds of big changes. These are very difficult changes because they’re painful. Eating less is painful and exercising is painful. They’re motivated when they may see us and we may feel like we’re doing a good job but I’m not sure that it’s regular reinforcing on a regular basis.” (Adult Therapist, Focus group 3) “Don’t spread them too far apart.” (Doctoral Intern, Focus group 3) “More often is better. Keep the enthusiasm going” (Licensed Clinical Social Worker, Focus group 3) “I don’t know if we would have time to do it daily, well we couldn’t, that’s way too much work. But definitely follow up, they follow up for the rest of their lives as far as I am concerned, especially if they have diabetes.” (Adult Therapist, Focus group 1) “It could go on forever.” (Adult Therapist, Focus Group 1)
Duration	“... the reality is that if we create a program it needs to stay. It needs to always be something that they can access to stay healthy for the rest of their lives. I don’t think you could come in and do something briefly and have them try to stick with it without that support.” (Case Manager, Focus group 5) “I think it’s initial time spent with them but I think it’s also think it’s duration that you don’t go and say... have them come in and say, “Okay, we’re going to spend an hour with you today, and then we’re not going to see you again for six months.” (Adult Therapist, Focus group 5) “There’s got to be some follow up.” (Case Manager, Focus group 5) “We have people that function at way different levels. Way Different levels - cognitively, emotionally. Getting a group, which I think a group is a wonderful way to do that, but it is sometimes a struggle to get and keep both. Don’t lose the bottom and don’t lose the top of the group.” (Adult Therapist, Focus group 2)
Meet a range of functional levels	“I think about our client base because a lot of them are. Lower functioning. Use three modalities of learning - visual, auditory, and tactile- anything they can incorporate.” (Doctoral Intern, Focus group 3) “It is so simple, but sometimes we forget to start where the client is at.” “It has to be tailored to the level of functioning of the client. I talk about it (health) with most of them, but sometimes it has to be very concrete and very simple.” (Provisional Clinical Social Worker, Focus group 2) “Groups have momentum of their own. ‘We’re here, we work together.’” (Licensed Professional Counselor, Focus group 2)
Group-based	“The nutrition part is not as important to people, but there is a core group of individuals who continue to be avid that want to go to the recreation center with their peers. And that’s what survived (that is why the group survived).” (Adult Therapist, Focus group 2) “Any benefits that they’ll get from it - and quick ones too... they need a quick springboard where they are going to see results quickly.” (Adult Therapist, Focus group 1) “It kind of goes without saying, but given that they are who they are, the incentives, the gifts for making progress, for attending things, or getting things done - it is surprising how effective that can be.” (Licensed Clinical Social Worker, Focus group 3) “They establish their own reward.” (Licensed Professional Counselor, Focus group 2)
Incentives	“Even though they would sit in the hot tub, they’ve agreed, ‘We have to work out for a certain amount of time before we get to go into the hot tub.’” (Licensed Professional Counselor, Focus group 2) “We get people to come because provide meals for them here we incentive them that way. We sometimes go help pick people up and stuff.” (Licensed Professional Counselor, Focus group 4)

"I don't think they would be happy with a perfect person coming to teach them.well, really. I am not any different than them. I don't want Barbie showing up to teach me about food and nutrition." (Adult Therapist, Focus group 2)

"I do think it needs to be...it would better if it were a separate entity type of thing. Then your medical, your psychiatrist, your therapist.you know you all work together, but this separate entity that can focus and concentrate on just promoting a healthy lifestyle." (Psychiatric Nurse, Focus group 1)

Provider type

"Just needs to be somebody who is humble and real. No matter who it is. Someone who can really be able to connect on...be able to be open. I normalize in that manner by saying 'I struggle with this too, a lot.' I almost get smiles of relief and a deeper connection like, 'Okay, if you struggle with this, then maybe I can handle it.'" (Licensed Professional Counselor, Focus group 2)

"Make it funny, laughter. Talking about uncomfortable Things sometimes but...I think there needs to be a sense of humility. So for someone facilitating it, if you're looking like you're trying to tell, 'I have it all together, and I am trying to tell you what to do', it's not going to work. "

(Licensed Professional Counselor, Focus group 2)

Atmosphere

"Our own incentives to change the pace, to keep things open, and more relaxed." (Licensed Clinical Social Worker, Focus group 3)

"I think you need to have accessibility a... if you have People coming in and talking to clients about healthcare promotion or program or whatever, clients are going to have questions and so to have a couple (point) people that are available for them to contact that are directly from that who are accessible enough. Because these clients might get really excited about it, but if there's nobody they can talk to or questions they have or... and if it's not a case manager or therapist, if it's somebody separate from the agency that's promoting this then I think that they need to have something that's accessible for the clients to contact and continue to work with. A little bit of individualization." (Adult Therapist, Focus group 5)

Active Provider Involvement

"...they almost need to have these providers to be a community for them. That they look to these people for acceptance and guidance and teaching .almost like their own little community built around them that help them."

(Case Manager, Focus group 5)

"I would like to have an active role. I like to do groups anyway, so I would like to be involved because I'm good at being a cheerleader and I'm good at being silly. You know being there and 'Hey let's work for that yo-yo and let's be real about this.'" (Adult Therapist, Focus group 3)

"I'd rather be active than sitting back and saying 'How was Your group today?'" (Case Manager, Focus group 3)

"I kind of like being more active as an approach. You know, not being an outsider looking in. At least having some insider information to help hold clients accountable." (Adult Therapist, Focus group 3)

"Well I think that as in individual therapist that [being involved in the health promotion group] is very helpful because then we can help reinforce ideas and even treatment goals, things like, that we can incorporate those things. So it's not like ok, you are doing this over here and being overwhelming. If you can integrate what you're doing with what they're doing—then they can connect." (Doctoral Intern, Focus group 3)