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"We're all in this together": Peer-specialist Contributions to a Healthy Lifestyle Intervention for People with Serious Mental Illness

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Abstract

This qualitative study explored peer specialists' contributions to a healthy lifestyle intervention for obese/overweight individuals with serious mental illness (SMI) living in supportive housing. Intervention participants, peer specialists, and supervisors were interviewed and a grounded model emerged from the data identifying essential interpersonal attributes of the peer specialist-participant relationship. Peer specialists' disclosure of their own experiences making health behaviors changes was critical for building participants' motivation and ability to try lifestyle changes. Findings can inform peer specialist training and practice standards and facilitate the expansion of peer-delivered interventions to improve the physical health of people with SMI.

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Keywords

Peer Support; Physical Health; Qualitative; Mental Illness

Peer specialists are people who utilize their own lived experience of mental illness and formal training to deliver services that promote wellness and recovery for others facing similar challenges (SAMHSA, 2016). While there are some challenges with the methodological rigor of studies in this field, promising evidence has emerged that peer-delivered services for people with serious mental illness (SMI; e.g., schizophrenia, bipolar disorder) may work as effectively as interventions delivered by non-peer clinicians, and that peer services may offer distinct advantages (Chinman et al., 2014; Cook, 2011; Lloyd-Evans et al., 2014). In recognition of these positive results, peer specialists are a growing segment of the mental health workforce whose services are becoming economically sustainable through Medicaid reimbursement (National Association of State Mental Health Program Directors, 2014). However, peer specialists are currently underutilized in interventions aimed at improving the physical health of individuals with SMI. Given the significant disparities in premature mortality, cardiovascular health, and obesity faced by people with SMI (Hert et al., 2011), it is essential to understand how peer specialists can contribute to the delivery of health-related interventions to help address these inequities.

People diagnosed with SMI die at an earlier age than the rest of the population (Colton & Manderscheid, 2006; Walker et al., 2015), primarily due to higher rates of cardiovascular disease. These health disparities are linked to side-effects of psychotropic medications, risky health behaviors (e.g., smoking, poor diet, sedentary lifestyle, unsafe sex), and inadequate medical care (Hert et al, 2011; Druss et al. 2001; Newcomer & Hennekens, 2007; Sokal et al, 2004). Individuals with SMI living in supportive housing (i.e., affordable housing with wraparound support services) often experience additional challenges, such as histories of homelessness, exposure to communicable disease, malnutrition, violence, and victimization, which further exacerbate these health disparities (O'Connell, 2004). Delivering effective health interventions that reach people with SMI in the community and understanding how these interventions work is key to eliminate disparities in cardiovascular health among people with SMI.

Healthy lifestyle interventions that improve dietary habits and physical activity have been shown to help improve the cardiovascular health of people with SMI (Cabassa et al., 2010; Daumit et al., 2013). However, healthy lifestyle interventions are often implemented with health professionals in clinical settings, limiting their accessibility and reach (O'Hara, Stefancic, & Cabassa, 2017). Healthy lifestyle interventions delivered by peer specialists in community-based settings that serve people with SMI, such as supportive housing agencies, can increase the reach and potential health benefits of these interventions. Given peer specialists' own experiences with health and mental health, they may be uniquely suited to engage, motivate, and support individuals with SMI in making healthy lifestyle changes.

While research on the effectiveness of peer-led health interventions is limited, studies have found these interventions show promise for certain health-related outcomes among people with SMI, such as self-management of general medical conditions (Cabassa et al., 2017;

Druss et al., 2017). Expanding both the implementation and knowledge base of peer-delivered health services requires a greater understanding of peer specialists' roles, how they deliver these services, and what factors account for their potential impact.

Studies within the context of mental health recovery have generally identified shared experience, credibility, role modeling, trust, hope, and social support as critical ingredients of peer support (Cabassa et al., 2017; Cook et al., 2012; Davidson et al., 2006; Gidugu et al., 2015; Solomon, 2004;). While some well-articulated peer-delivered program models exist for addressing health and wellness, such as Peer Wellness Coaching and Peer Navigator Programs (Brice et al., 2014; Corrigan et al., 2017; Swarbrick et al., 2011; Swarbrick et al., 2016), few studies have empirically explored the unique contributions that peer specialists bring to physical health interventions designed to address the physical health needs faced by this population. Further, there often remains an ambiguity and lack of clarity regarding peer specialists' roles in general which contributes to an underutilization or mis-utilization of peer specialists (Cabral et al., 2014; Gates & Akabas, 2007; Chinman et al., 2008; Mowbray et al. 1996; Salzer et al.,2010), particularly when peer specialists are integrated into more mainstream mental health agencies (Gillard et al., 2017).

The aim of our qualitative study is to identify the contributions that peer specialists bring to the delivery of a healthy lifestyle intervention for people with SMI living in supportive housing. Exploring peer specialists' contributions to providing services is essential to understanding both their role within the provider workforce and how to best train and support them in service delivery. It is critical to address this gap by empirically examining the peer specialist/client relationship within the understudied domain of physical health service delivery. This study advances the science of peer-delivered services by identifying how peer roles can function within mainstream mental health services and manualized interventions without sacrificing the potential unique features of peer specialists' practice (Gillard et al., 2017). Further, it is particularly important to examine how peer specialists work to establish positive relationships in these contexts as evidence for effectiveness is most robust among peer specialists who have been added to traditional services and are delivering manualized curricula (Chinman et al., 2014). Using data collected from multiple stakeholders (e.g., clients, peer specialists, supervisors), this study explores how peer specialists' approach their work with clients, identifies the key attributes of the peer-client relationship, and explores how these qualities created a supportive context where clients could both learn and integrate health behavior changes.

Methods

Overview.

This study is part of a larger federally-funded hybrid type 1 effectiveness/implementation trial testing the effectiveness and examining the implementation of a peer-led healthy lifestyle program for overweight/obese (BMI ≥25) clients with SMI in supportive housing agencies (Cabassa et al., 2015). In the present report, we examined the contributions peer specialists made to the delivery of this healthy lifestyle intervention.

Peer-Led Group Lifestyle Balance Program (PGLB).

This is an adapted version of the Group Lifestyle Balance (GLB) program (derived from the Diabetes Prevention Program developed by the University of Pittsburgh: Diabetes Prevention Support Center) (Kramer et al., 2009) (O'Hara, Stefancic, & Cabassa, 2017). The GLB is a year-long, 22-session manualized intervention that promotes weight loss by having participants incorporate behavioral strategies (e.g. self-monitoring) to improve their diet and increase physical activity. Sessions occur weekly for three months (core), bi-weekly for three months (transition), and monthly for six months (maintenance). The GLB was adapted for the present study to meet the needs of persons with SMI living in supportive housing agencies and to be delivered by peer specialists rather than health professionals. (O'Hara, Stefancic, & Cabassa, 2017). For example, adaptations included offering individual make-up sessions if sessions were missed and providing in-between session contact to intervention participants to increase support (O'Hara, Stefancic, & Cabassa, 2017). The adaptations were reviewed by GLB developers and remained consistent with the program's fidelity standards.

All peer specialists were employed by one of the three supportive housing agencies and completed Pennsylvania or New York State's peer specialist certification program (e.g. completion of training courses in approaches to peer-delivered services, person-centered planning, advocacy and goal setting). They also completed the 2-day GLB certification program delivered by a master GLB trainer. Peer specialists then completed approximately 3 months of intensive session by session training as well as mock sessions prior to facilitating the intervention. Peer specialists continued to receive individual on-going training on a weekly basis reviewing session material and receiving feedback from fidelity monitoring. Fidelity monitoring consisted of a supervisor reviewing session audio recordings and rating the degree to which key elements of the intervention were present as well as providing qualitative feedback on session delivery (O'Hara, Stefancic, & Cabassa, 2017). Peer specialists were supervised jointly by members of the research team and a non-peer staff supervisor at their supportive housing agency. Peer specialists also participated in on-going weekly debriefing and monthly all-site "learning community" calls where peer specialists develop the agendas and discuss any issues arising within the context of their service delivery.

Peer specialist's tasks included facilitating group and individual sessions, conducting in-between session check-ins, providing feedback on participants' food logs, documenting attendance, weight, and progress notes, and coordinating support services with other agency staff.

Sample.

Stakeholder groups interviewed for this study included intervention participants, peer specialists, and peers' supervisors. Intervention participants were English speaking, clients of a supportive housing agency diagnosed with a SMI, overweight/obese (BMI ≥25) and had been randomized to PGLB. A purposive sampling method was used to recruit intervention participants to reflect the differing levels of exposure to PGLB based on attendance and type of exposure to group or individual sessions. Participants were eligible for inclusion in this study if they attended at least two sessions within the first 16 sessions of the PGLB program.

To ensure a diversity of perspectives reflective of level and type of exposure, intervention participants were further chosen based on their level of attendance (high = attended ≥ 75% of sessions, medium/low = attended <75% of sessions) and session format (group or individual). Fifty-six participants who were eligible between November 2016 and August 2017, 30 participants were invited to participate in this study and all completed interviews. However, two interviews were terminated early and not used in the analysis (one participant refused all but initial questions and the other was unable to address the direct content of questions). All peer specialists (N = 4) delivering the PGLB intervention and their supervisors (N = 5) were invited to participate and completed interviews.

Data Collection.

A trained research assistant conducted all individual interviews with intervention participants, peer specialists, and supervisors. Interviews lasted approximately one hour. Supervision meetings with senior researchers were held on a weekly basis to debrief and provide feedback on interviews. Interview questions differed slightly depending on the type of stakeholder interviewed. All stakeholders were asked the same questions, differently worded, with the exception that peer specialists were not asked to describe themselves.

We used a semi-structured qualitative interview guide that covered topics related to the peer specialist's facilitation of PGLB and the experience of participants with their peer specialist. Interview questions were developed from a review of the literature and input from [author 4], who is an expert in the field of peer-delivered services (Gidugu et al., 2005; Solomon, 2004). Card sort exercise examples were identified from a review of the literature on potential important aspects of peer-delivered services (Cook et al., 2012; Davidson et al., 2006; Solomon, 2004; Cabassa et al., 2017).

The card sort exercise asked all study participants to identify the most important characteristics of the peer specialist-client relationship from a list of eleven possible statements. Each stakeholder was asked to choose the three statements that were most important to the peer-client relationship and subsequently rank order the statements from most to least important to the peer specialist-client relationship. Stakeholders were then asked to explain their selections and rank-order. A copy of the intervention participant interview guide is available upon request. All interviews were audio recorded and professionally transcribed.

Descriptive information (e.g., sex, age, information on health and psychiatric conditions) for intervention participants was taken from the baseline structured interviews from the larger study (Cabassa et al., 2015). All demographic information (e.g., sex, age, race, ethnicity) for supervisors and peer specialists was collected following the semi-structured qualitative interview.

Data Analysis.

We used descriptive statistics (e.g., frequencies, means) to describe sample characteristics and responses to the card sort question. Analysis of qualitative data was conducted using a grounded theory approach whereby transcripts were reviewed to identify patterns and themes, beginning with a series of codes representing potentially important concepts and

categories. Codes emerged both from the literature on peer specialists (e.g., “trust”) and directly from the transcripts (e.g., “on our level”) (Leavy, 2014). Four transcripts were reviewed independently by two research assistants to identify a priori and emerging codes to initiate codebook development. Meetings with senior investigators were held weekly where research staff presented their memos and emerging codes to iteratively develop the codebook. Two research assistants then separately reviewed 12 transcripts and assigned the initial set of codes to various passages, to determine the applicability of the codebook to the data. When coding discrepancies occurred, a third researcher assisted in resolving the discrepancy. The codebook was also modified during this process to reflect the need for codes to be eliminated, refined, or added. Qualitative data analysis occurred concurrently with enrollment for the study and after completion of 25 interviews, it was hypothesized that saturation had been reached since no new codes were emerging from the data. Five additional interviews were conducted to confirm saturation.

A final code book was developed and then all transcripts were entered and coded in Atlas.ti. We then developed reports based on the most appropriate codes (e.g. comfort, support and encouragement, hope and motivation), related to our study aims. Three researchers examined excerpts associated with codes that were relevant to capturing the peer specialist/client relationship to identify initial themes and subsequently identified quotes that pertained to the themes identified through consensus. The research team then examined the relationship between emerging themes of the peer/client relationship and health behaviors, depicting this relationship in the form of a grounded model. The model was developed using an iterative process whereby the research team returned to the data to revise the model and confirm that it accurately represented the themes underpinning the model. In order to ensure the analysis rigor and trustworthiness, research staff maintained an audit trail, conducted member checking with the peer specialists, conducted multiple peer-debriefing meeting, and had multiple coders review the dataset (Creswell, 2003). During the member checking process, the results of study analyses were presented to the peer specialists as a group, including descriptions of model components and findings, and raw data excerpts so that peer specialists could assess the degree to which they reflected model components and processes, as well as their personal experiences. This member check provided an opportunity for peer specialists to discuss the results with one another and with the researchers. Peer specialists were consistent in endorsing the findings as representative of their experiences interacting with intervention participants. In order to ensure the confidentiality of our peer specialists in the presentation of our qualitative data, references to identifying characteristics (i.e. gender) within qualitative results have been removed and they will be referred to as “PS” for peer specialist.

Results

Sample Characteristics.

Table 1 summarizes sample characteristics (N = 37). The mean ages of intervention participants (n=28), peer-specialists (n=4), and supervisors (n=5) were 49.82, 44.75, 34.25 years old, respectively. Intervention participants and peer-specialists were primarily Black (71% and 75%, respectively), while supervisors were predominantly non-Hispanic white

(60%). Low attenders comprised 36% of the intervention participants enrolled (median of 13.5 sessions/22 Session) and 64% were high attenders (median of 21.5 sessions/22 sessions). Sixty-eight percent of intervention participants received more than 50% of the PGLB program through group sessions and 32% received the majority of sessions in individual format. The most common health conditions reported by intervention participants were hypertension (61%), high cholesterol (46%), diabetes (32%), and arthritis (32%). All peer specialists held certifications through their respective state certification board and had a history of recovery from a SMI (e.g. schizophrenia, bipolar disorder). All supervisors had background in social work, clinical psychology or medicine.

Descriptions of Peer-specialists

Intervention participants and supervisors most commonly described PGLB peer specialists as nice, good teachers, caring, energetic, and dedicated. “Nice” was often used as a descriptor to indicate that participants and supervisors felt that the peer-specialists were respectful, unpretentious, and friendly in their approach. One intervention participant elaborated by stating, “[The PS] don’t never have an attitude, you know? It doesn’t seem like [The PS] ever having a bad day. [The PS] ‘s alright. [The PS] …motivates us. When I grow up I want to be just like [the PS].” **(IP2)** Another participant spoke directly about how the peers’ own shared experience living a healthier lifestyle influenced his perception of the peer. The participant noted, “Because [The PS] could relate to what people was going through as far as with the weight and all of that stuff. And I think [The PS] told us [The PS] was in a place like this too…[The PS] was just nice…[The PS] treated people with respect.” **(IP4)**

Intervention participants and supervisors defined the peer specialists’ as being a “good teacher”, having expertise in the manualized intervention, balancing teaching material with fun engagement, and demonstrating patience with participants. One participant noted, “[The PS] was an excellent facilitator. And he was serious about it, yet, [the PS] made it fun. [The PS] would always throw a little joke in or something, to keep our attention.” **(IP6).** “Caring” was used to indicate that not only was the peer someone who was truly concerned with their welfare, but someone who also understood the unique experience of the participants and whose efforts exceeded expectations. Participants often described the peer-specialists as employees who came to work for “more than just a paycheck.” One participant shared, “[The PS] cares … [The PS] goes out [their] way to make sure you alright…[the PS] ain’t got to do that.” **(IP7)** Another participant reiterated this sentiment, “[The PS] really cares about how you’re feeling. [The PS] knows what I’m going through. I hear voices sometimes, and [the PS] tells me that [they are] bipolar also. So, [the PS] got a similar … diagnosis.” **(IP11)**

Additionally, intervention participants and supervisors described the peer-specialist as “energetic,” reporting that the peer was someone who was always in a good mood, smiling, and enthusiastic about their work. A supervisor elaborated on this description by stating, “[The PS] genuinely is appreciative of the work that [the PS] is doing and [the PS] believes in it. And I think that’s where the enthusiasm comes from.” **(S5)** Finally, the peers’ dedication to their work was reflected in descriptions of the peer-specialists as consistent

and reliable sources of support. One supervisor shared, "[The PS] is so dedicated to this project, to doing the best [the PS] can. [The PS] doesn't even want to miss a day. [The PS] is always coming with questions about how [the PS] can do things better…that's been something that I've been so impressed by." **(S1)**

Card Sort Results

The ranking of statements describing important aspects of the peer specialist-client relationship by stakeholder group is presented in Table 2. Overall, the most commonly selected statement was "The peer specialist was someone I felt comfortable with," wherein both participants and supervisors highlighted that the peer specialist fostered a sense of comfort through both their positive attitude and non-judgmental approach to their work. Intervention participants also articulated that feeling comfortable allowed them to open up to the peer-specialist.

The second most frequently selected statement among all stakeholders was "The peer specialist provided me with encouragement and support," noting the peer specialists' patience and the "unconditional" nature of their support. Intervention participants, in particular, emphasized how the peer specialists' support and encouragement extended beyond PGLB, such as to providing support when experiencing emotional problems (e.g., depression). Peer specialists highlighted that their goal in providing support and encouragement was to make the participant aware that they are "not alone." Finally, "The peer specialist helped me feel hopeful about making positive changes" was selected as the third most important component to the peer-specialist/client relationship. All stakeholder groups spoke about how the peer-specialists' unwavering positivity and constant presence helped participants feel inspired and hopeful about the possibility of change.

Other statements selected mostly as second or third choices included those that reflect the characteristics of credibility ("The Peer Specialist knew what s/he was talking about in terms of a healthy lifestyle"), empathy ("The Peer Specialist really understood what I was going through"), self-disclosure ("The Peer Specialist shared their personal history and experiences with me"), and translation ("The Peer Specialist put things in words I was able to understand"). Credibility was described by stakeholders as relating to the peer-specialist's training in the healthy lifestyle program, reporting that the peer-specialist was well-versed in all relevant material. Stakeholders also described the peer-specialists as empathetic in that they understood the struggles and challenges inherent to trying to live a healthier lifestyle. Additionally, self-disclosure was viewed as a critical component of the peer-specialist/client relationship, signaling a shared understanding of living a healthy lifestyle and recovery. Finally, participants, peer specialists, and supervisors all stressed the importance of the peer-specialist's ability to adapt/translate program content to make it easy to understand.

Grounded Model of the Peer-Specialist/Intervention Participant Relationship in a Healthy Lifestyle Intervention.

Figure 1. presents the factors underpinning the relationship between peer specialists and participants within PGLB that emerged from our analysis. The overall relationship between peer specialists and participants is founded on shared experiences of recovery from SMI.

This shared experience of SMI, set the stage for the peer specialists to be able to develop a relationship with participants characterized by feeling comfortable, providing support and encouragement and instilling hope and motivation. The peer specialist approach is further linked by peer specialists and participants shared experience related to living a healthier lifestyle as peers' self-disclosed their own challenges engaging in healthy lifestyle changes. Intervention participants reported that this shared experience of healthy lifestyle was critical for supporting their engagement in their own lifestyle changes in terms of physical activity, portion control, healthier food choices, self-monitoring, and mindful eating.

Shared Experience of SMI.

The peer specialist/intervention participant relationship seemed to be predicated on the peers' disclosure of shared experience related to mental health and recovery. All stakeholders highlighted how crucial the peer specialist's use of self-disclosure was to developing a more non-hierarchical relationship with participants. In the words of one peer specialist,

> I told them I take my psychotropic medication, I go to therapy once a week, I see my psychiatrist once a month. And I make that known that I'm no better than you. The only difference is I got trained in how to do this and hopefully I can help you.
>
> (PS1)

This shared experience allowed peer specialists to truly empathize with and understand the challenges of living with SMI or addiction, as one participant noted,

> …[The PS] don't just teach the class…[The PS] relates to us, too…[The PS] tells us [their] experience and next thing you know that we all identify with [The PS] and then that what make everybody participate…[The PS] shared about their] weight and [their] mental illness and stuff like that…[The PS] understands what we going through.
>
> (IP2)

While shared experience related to mental health and recovery was described as influential, explicit discussion of these experience was tended to occur in the early phases of engagement "to relate to us to get the group started, open it up for a class discussion. So, everybody started relating." **(IP2)** This type of sharing was less commonly referenced as the subject of ongoing discussion but was nevertheless present in the background of the peer/client relationship.

Peer Specialist/Intervention Participant Relationship.

The relationship between peer specialists and clients was characterized by the peer specialist's ability to foster comfort, support and encouragement, and hope and motivation in their work with participants. These three attributes initially emerged from stakeholders' identification of statements representing the most important components of the peer specialist/intervention participant relationship and were also present throughout stakeholders' descriptions of the peer-specialists. Each stakeholder group cited how these attributes reflected a positive working relationship in which participants were able to learn

program material and seemed to set the stage to support health behavior changes. One supervisor summarized how all three concepts seem to work together,

> What I do know is that participants are coming back, they're being encouraged, they're being supported. They're being engaged and they're motivated to return… But I think to have this you first have to have the participants feeling comfortable and feeling like okay, I can come and see this person. I want to talk to [the PS]. I want [the PS]'s feedback.
>
> (S3)

Each specific attribute was shaped by aspects of the peer specialist's approach to service delivery and reflects a unique facet of the peer specialist/client relationship.

Feeling Comfortable.

Comfort was described by stakeholders as the product of the peer specialist's ability to demonstrate understanding, a non-judgmental attitude, genuineness, and friendliness. One participant commented that they felt comfortable because of "[The Peer Specialist's] smile; [The Peer Specialist's] attitude about being - doing [their] job." **(IP12)** There was agreement across stakeholders that the peer specialists' demeanor and friendliness made participants feel welcome. Stakeholders described the peer specialists as both understanding and non-judgmental. These attributes allowed intervention participants to share openly about not only success, but also struggles with healthy eating and physical activity, as mentioned by this participant:

> You could just open up to [The PS]. And that's very important in this sort of group to open up and talk about something as maybe embarrassing as a weight problem.
>
> (IP9)

Support and Encouragement.

Stakeholders' descriptions of peer specialists as supportive and encouraging were driven by peer specialists' consistency, flexibility, unconditional presence, caring, help with stressful situations, and through the provision of resources (e.g. scale, pedometer). There was consistency across stakeholder groups in perceptions of how the peer specialists were able to provide support and encouragement in the context of the peer/client relationship. Stakeholders stressed the importance of the peer specialist's caring about the well-being of participants. One participant noted,

> Like if [The PS] don't see me in the building couple days, cause [The PS] know I fall to the wayside sometimes. [The PS] call me and it feel like I need to get back on track. Somebody else cares for me to get back on track. [The PS] makes sure I'm not emotionally eating."
>
> (IP3)

Additionally, peer-specialists were characterized by their flexibility in helping participants reduce barriers to living a healthier lifestyle. One supervisor shared,

> … [The PS] was gonna go with a participant and get him a cart so he could pull his groceries home. Like, which never occurs to me, you know? That kind of stuff. because he couldn't get his healthy food home cause he couldn't carry it, right? I think he mainly was getting it from some—you know, like a produce junction type of, you know, like a little bit of a bulk thing.
>
> (S2)

Moreover, each stakeholder group highlighted the importance of the peer specialist's consistent presence both in group and during in between session check-ins throughout the intervention. Stakeholders often cited how this consistency translated to an understanding that they were "not alone." In the words of one supervisor,

> [The PS] provides them the tools to accomplish whatever they need. And [the PS] also provides the support of just being there. So [The PS] tells them time and time again if you ever need anything I'm here. If you need help, if there's something you're not understanding you can meet me after the group.
>
> (S5)

Additionally, intervention participants also shared how the peer specialists' support extended beyond program material. One intervention participant shared,

> Well, I was having a few problems a while ago. [the PS] came all the way to see me. All the way downtown to see me. Out of [the PS]'s own pocket, you know? And we talk, person I can really get along with it. [The PS]'s there not just for the program. [The PS]'s there as a friend too.
>
> (IP5)

Hope and Motivation.

Stakeholders also described how peer specialists were able to instill hope and motivation in their relationship with participants by setting realistic goals, normalizing slips from healthy eating and physical activity, celebrating successes, believing in the possibility of change, and maintaining unwavering positivity contributed to feelings of hope and motivation. Many intervention participants and peer specialists stressed the importance of normalizing slips rather than celebrating success when describing the peer specialist. One participant shared,

> …I think the best thing about it is that there's another day and that if you need to lose weight, that you're able to lose weight and accept the mistake that you made, it's not judgment day. It's not the end of the world.
>
> (IP1)

Whereas, supervisors emphasized the importance of peer specialists' ability to celebrate successes.

> [The PS] would have people recording food. "You see? You were able to do this. That's amazing. You were able to instead of eating uh, 3 sausages a day, you, you reduced to 1. That's great. And they were able to see it in the logs. So, [the PS] was, [the PS] was um, really using these opportunities to, to show with facts that,

> and to increase the motivation of people because they were able to see oh, I did it, you know?
>
> (S4)

Shared Experience of Living a Healthier Lifestyle.

Each stakeholder group indicated that peer specialists frequently disclosed their own efforts to live a healthier lifestyle which was considered a central element in the peer specialist/participant relationship that went beyond the self-disclosure related to mental health and recovery. Furthermore, stakeholder groups described how this dimension of shared experience was not only interwoven throughout descriptions of the peer specialist/client relationship but was also used by peer specialists to illustrate how to incorporate program concepts into daily life.

Intervention participants commonly explained that the peer specialist's use of selfdisclosure related to living a healthy lifestyle allowed them to feel that "That [The PS] shares the same truth - the reality - with us" **(IP3)** and was "on our level" **(IP8)**. This dimension was also used by peer specialists to exemplify and normalize challenges related to living a healthier lifestyle, with intervention participants reporting that the peer specialists' spoke about their own struggles integrating lifestyle changes.

> [The PS] talks about the gym a lot and how the holidays got [the PS] in-between losing and gaining. And we was talking about that and how other things could have us up and down in our weight. [The PS] gained a few pounds. [The PS] always tell us to go slow. Don't try to lose all the weight at one time. [The PS] 's incorporated that into [their] curriculum. [The PS] 's talked about [themselves].
>
> (IP3)

One peer specialist highlighted how she integrated her own experience to help participants feel hopeful about making lifestyle changes, she reported telling her participants "that I was prediabetic and that I had to cut down certain foods and that's how I was able to keep the weight off." **(PS3)** Intervention participants similarly spoke about how crucial the peer specialist's use of self-disclosure was to helping participants feel hopeful about the possibility of change. One participant noted,

> [The PS] was a good example because [The PS] had begun to live a healthier lifestyle, and it was showing, you know. It was - it was visible…And so with seeing them, it's like - it's hope
>
> (IP6)

Another intervention participant described how he experienced the peers' use of self-disclosure.

> If somebody's been through something; [The PS has] been through being overweight; and somebody tells you something how they did it and how they lost weight; of course, it's going to be helpful.
>
> (IP4)

Finally, intervention participants also emphasized the importance of learning about the peers' experiences to provide them with tangible examples of how to incorporate healthy lifestyle change into their lives. One participant described,

> [The PS] shared [their] personal experience about how [they go] to the gym, what [they do] in the gym, food [they] ate, certain foods that you should try to eat, stuff like that. That was [The PS's] personal experiences that [they] shared with the group.
>
> (IP7)

Lifestyle Changes.

Stakeholders emphasized how the positive, working relationship between peers and participants facilitated their efforts to learn and apply PGLB behavioral change concepts, such as physical activity, portion control, healthier food choices, selfmonitoring, and mindful eating. Participants highlighted how peer specialists were able to make intervention content relevant and accessible by providing on-going encouragement, individually-tailored examples of how to make lifestyle changes, integrating self-disclosure, and emphasizing a collaborative approach to teaching PGLB concepts.

As a result of the positive relationship between peer specialists and intervention participants, peer specialists gained an in-depth knowledge of participants' daily lives. This allowed peer specialists to tailor the delivery of PGLB concepts, including helping one participant better understand the importance of physical activity, while also making it seem more feasible to integrate into his daily life.

> [The PS] really broke it down; really made it look easy to understand and all of that…if you could exercise twice or one time a day for 20 minutes, do that. [The PS] is the one that got me going to the gym because I wasn't even thinking about going to no gym…
>
> (IP4)

The peer specialists' approach focused on suggestions that intervention participants perceived as realistic and attainable, helping them to consider making lifestyle changes, such as choosing healthier food options. One participant noted, "[The PS] took what's negative and [the PS] made it positive. Instead of buying a hot apple pie, maybe a yogurt or fruit or nuts and raisins and prunes. Things like that." **(IP1).** Stakeholders also described how the peer specialists made material related to making healthier food choices more relevant and accessible by showing participants healthy food options in their neighborhoods that were also affordable. One peer specialist described this approach while also emphasizing the collaborative nature of engaging in the process of lifestyle change

> …let's meet at Wendy's. Wendy's has like a healthier food menu. We can get a side salad. When the weather's nice, let's go take a walk. So, like we're being physically active, we can talk and stuff like that. So as opposed to just like okay, I see you, you're doing good, that's it. You know? No, like let's instead of me telling you what you should do, I'll be a part of it and help you do it, you know? So being involved"

(PS2)

Another participant described how the peer specialist helped her integrate portion control and mindful eating by providing reassurance and consistent, unwavering encouragement.

> And I think a lot of that…had to do with his input and to saying to me. “You can do it. You can do it. You’re gonna do it. I know you can do it,” you know…like you’re eating the right foods. Now what you need to do is…portion it, you know.” And so I began to portion it…instead of eating a dollar bag of potato chips, I might eat a 35-cent bag of potato chips, and that will be enough. Take my time while I was eating and take little sips of water in between bites. I grew up with, “Eat your food. Don’t drink while you’re eating,” you know.

(IP6)

Finally, stakeholders described how the peers’ encouraging and collaborative approach to teaching PGLB concepts extended to activities such as self-monitoring. One participant described the challenges of documenting meals and how the peer specialist would provide very hands-on, individualized support to help them complete food logs:

> It was plenty of times I didn’t live up to my standards of filling [the log] out or doing what I was supposed to…It’s hard to keep it up and figure out what you had yesterday…and in-between meals. [The PS] would say that’s alright and [The PS] would help us with it.

(IP10)

Overall, intervention participants consistently referenced how their relationship with the peer specialist was critical to their understanding and application of the core components of the PGLB program.

Discussion

This study examined the contributions of peer specialists to a peer-delivered healthy lifestyle intervention for people with SMI residing in supportive housing. Through the perspectives of intervention participants, peer specialists, and supervisors, we explored peer specialists’ approach to service delivery and how they established supportive, working relationships with intervention participants. This study contributes to the literature on peer-delivered interventions for individuals with SMI in three ways by: identifying common elements of peer-delivered services, identifying key interpersonal attributes that seem to support health behavior changes, and uncovering different components of shared experience beyond experiences around mental health that seem to support participants’ engagement in healthy lifestyles.

In this study, we explored the role of peer specialists delivering PLGB, a manualized intervention targeting physical health, which differs from many other forms of peer support that have been studied among persons with SMI to date. Prior studies, particularly for peer-delivered services embedded within mainstream programs, have commonly focused on peer specialists in more broadly defined areas, such as case management, peer navigation, or supports that focus on mental health recovery or general wellness (e.g. Gidugu et al., 2015).

Despite differences in areas of focus, similar components of peer-delivered services that are consistent with social support theories emerged as important to the peer specialist's delivery of our healthy lifestyle intervention, including forming a non-hierarchical relationship between peers and participants, empathy, modeling, hope, and shared lived experience (Solomon, 2004; Davidson, Chinman, Sells, & Rowe, 2006; Cook, Copeland, & Jonikas, 2012; Gillard, Holley, & Lucock, 2015). This suggests that there are likely some common fundamental contributions that peer specialists bring to the delivery of the PGLB intervention for people with SMI. While some dimensions of the peer specialist/client relationship mirror aspects of therapeutic alliance models (e.g. empathy, collaborative engagement, unconditional positive regard (Elvins & Green, 2008), some dimensions like role-modeling and shared experiences seem to be unique to the peer specialist/participant relationship as described within our study and in prior literature examining peer-support (Gillard, Holley, & Lucock, 2015). These findings inform peer support theories by identifying aspects of the peer specialists' practice that helped to establish positive relationships. For example, hope was not only built by viewing the peer specialist as a role model, a key element for establishing support, but also by the peer specialist's ability to put this support into action by helping clients set realistic goals, celebrate successes, maintain a positive attitude, and normalize behavioral slips.

Second, the study specifies how the interpersonal context between the peer specialist and participants served as a critical foundation for participants to create and sustain a healthy lifestyle. A relationship in which participants reported support and encouragement, hope and motivation, and feeling comfortable, contributed to their willingness to receive health information and to begin applying intervention components. This highlights the importance of the interpersonal connection between peers and participants beyond the peers' technical delivery of the manualized intervention. This interpersonal connection mirrors the different types of supports conceptualized by social support theories (Simoni et al, 2011). Specifically, peer specialists provided instrumental support (e.g. access to health-promoting resources such as scales and pedometers), informational support in the form of guidance regarding diet and physical activity that included individually-tailored strategies for integrating changes, and emotional support as reflected by descriptions of peers' offering caring, empathy, and encouragement both within and beyond the context of living a healthier lifestyle. Understanding how this interpersonal relationship develops is critical given that level of engagement with the peer specialist and perceived "goodness of fit" between the peer specialist and participant have been identified as important to the effectiveness of peer-delivered services (Chinman et al., 2018).

Finally, our findings showed how different domains of shared experience in peer-delivered services can be applied in practice. Consistent with prior research, shared experience related to mental illness and recovery helped build rapport, trust, and credibility (Solomon, 2004). However, this type of shared experience was central to relationship-building primarily during initial stages of engagement, after which shared experience related to living a healthier lifestyle became more salient for participants. Peer specialists sharing their own personal challenges and successes related to adopting a healthy lifestyle helped create a concrete and relatable framework for how participants could integrate health behavior change into their own lives. For instance, peer specialists' shared understanding of the

challenges of affording and accessing healthy foods led them to offer participants strategies for finding healthier food options at fast food restaurants. While prior literature examining mechanisms of change in peer-delivered services has highlighted the role of shared experience in engaging participants in peer-support (Gillard, Holley, & Lucock, 2015), our study identified how different domains of shared experience become prioritized throughout the process of the peer specialist/intervention participant relationship from engagement to service delivery..

Additionally, the peer specialist's ability to normalize slips based on their own experiences helped participants accept the reality of the behavior change process and become more confident in their ability to persevere through challenges. In these ways, peer specialists' use of their shared lived experience of living a healthier lifestyle relates well to processes embedded within Social Cognitive Theory (SCT) (Bandura, 1997). Peer specialists' use of selfdisclosure and role modeling facilitated participants' observational learning and helped set new social norms regarding health and behavior change. This approach is thought to build hope and self-efficacy - the belief in one's ability to enact certain behaviors - and appeared to influence participants' decisions to attempt similar behavior changes with respect to dietary habits and physical activity.

This study has several limitations. Our small sample was drawn from an effectiveness trial being conducted in three supportive housing agencies in two urban centers in the East coast, thus limiting the generalizability of our findings to these agencies and settings. However, this study offers a diversity of perspectives using data collected from participants, peer specialists and the peer specialist's supervisors. The supportive housing agencies included in this study are all early-adopters of the healthy lifestyle intervention, suggesting that the agencies may be more prepared to integrate this type of peer-led intervention than other agencies. Despite this limitation, each of the supportive housing agencies had a different approach to addressing physical health. Further, the intervention participants who were interviewed for this study have already developed multiple, chronic health conditions. Thus, the intervention may be perceived differently for intervention participants focused on risk prevention versus risk reduction. Finally, our grounded model may be unique to our healthy lifestyle intervention. However, several strategies were used to improve the trustworthiness of results including maintain an audit trail and using multiple coders. Further, there is considerable overlap between the model developed from this study and research conducted in the field of peer-delivered services (Gillard et al., 2015). Future studies are needed to examine how the components of our model are presented in other peer-delivered health interventions.

Conclusion

To facilitate the expansion of peer delivered health services, it is essential to understand the contributions that peer specialists bring to the delivery of a healthy lifestyle intervention for people with SMI living in supportive housing. This study provides data to help establish a better understanding of the elements of the peer specialist/participant relationship that foster engagement in the process of health behavior change. Beyond identifying components of the peer specialist/participant relationship, this study clarifies the process by which peer

specialists are able to achieve these relationship outcomes (e.g. feeling comfortable, hope/motivation, support/encouragement) with intervention participants. Our grounded model suggests potential interpersonal mechanisms that could be tested in future studies to examine the contributions peer specialists make to the delivery and impact of healthy lifestyle interventions. Further, our model can be used to develop measures to capture and track the interpersonal dimensions of the peer specialist/intervention participant relationship from the participant's perspective. Finally, understanding these mechanisms can help inform core competencies, training, and practice standards to better prepare the workforce to deliver peer-delivered health interventions that could improve health behaviors among persons with SMI.

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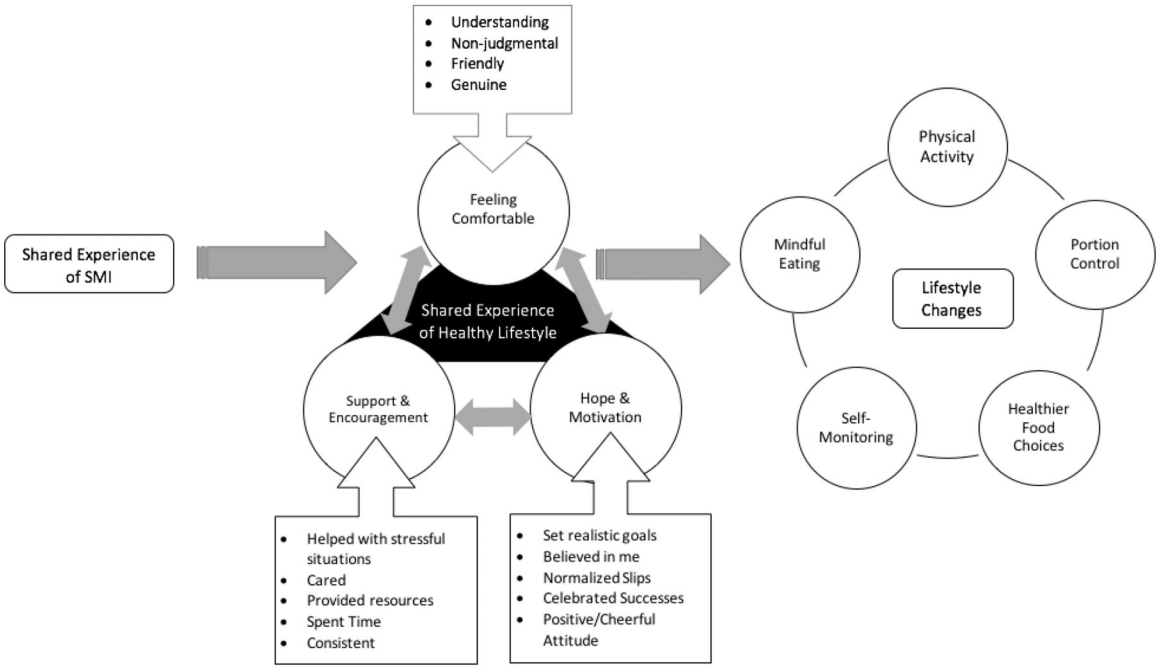

Figure 1.

Grounded Model of the Peer-Specialist/Intervention Participant Relationship in a Healthy Lifestyle Intervention

Table 1

Participant Characteristics (n=37)

	Peer-specialists (n = 4)	Supervisors (n = 5)	Intervention Participants (N= 28)
Age (years)			
Mean (SD)	44.75 (7.41)	34.25 (10.2)	49.82 (9.27)
Sex			
Female	2 (50%)	4 (80%)	14 (50%)
Ethnicity			
Hispanic/Latino	0 (0%)	1 (20%)	0 (0%)
Race			
African-American/Black	3 (75%)	0 (0%)	20 (71%)
White	1 (25%)	3 (60%)	6 (21%)
Multiracial	0 (0%)	0 (0%)	1 (0.035%)
Other (Specify):	0 (0%)	2 (40%)	1 (0.035%)
Self-Reported Psychiatric Condition			
Schizophrenia			21 (75%)
Schizoaffective Disorder			
Other Psychotic Disorders			1 (0.035%)
Bipolar Disorder			13 (46%)
Depression			24 (86%)
Anxiety Disorder			12 (43%)
Drug Abuse/Dependence			9 (32%)
Alcohol Abuse/Dependence			9 (32%)
Self-Reported Health Condition:			
Hypertension			17 (61%)
High Cholesterol			13 (46%)
Diabetes			9 (32%)
Arthritis			9 (32%)

Table 2

Stakeholders ‘ Ranking of Peer Characteristics Overall

Peer Staff Characteristics	Intervention Participants (n= 28)	Peer-specialists (n = 4)	Supervisors (n = 9)	Total (n = 41)
	N (%)	N (%)	N (%)	N (%)
Comfortable	13 (44%)	2 (50%)	4 (44%)	19 (46%)
Commonality	4 (15%)	2 (50%)	0 (0%)	6 (15%)
Trust	5 (19%)	0 (0%)	3 (33%)	8 (20%)
Self-Disclosure	6 (22%)	2 (50%)	2 (22%)	10 (24%)
Respected Decisions	6 (22%)	3 (75%)	0 (0%)	9 (22%)
Empathy	6 (22%)	0 (0%)	4 (44%)	10 (24%)
Support	11 (41%)	1 (25%)	5 (56%)	16 (39%)
Credibility	9 (33%)	0 (0%)	2 (22%)	11 (27%)
Hope	13 (44%)	1 (25%)	3 (33%)	16 (39%)
Modeling	8 (26%)	0 (0%)	1 (11%)	9 (22%)
Translation	6 (22%)	1 (25%)	3 (33%)	10 (24%)