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Integration of Peer Philosophy into a Standardized Self-Management Mobile Health Intervention

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Abstract

Objective—Description of certified peer specialists integration of peer philosophy into the delivery of a self-management intervention enhanced with mobile health.

Methods—Qualitative examination of peer case notes that were routinely entered on a peer care management electronic dashboard. This study included consumers with serious mental illness (*N*=8) with a mean age of 68.8 years (*SD*=4.9). Certified peer specialists (N=3) were all female and aged 55 years or older.

Results—Peers entered 146 case notes on the peer care management notes dashboard. Five themes emerged including encouragement of self-determination, bio-psychosocial-spiritual framework guides practice, sharing lived experience to teach self-management skills, personalized text messages to reinforce self-management skill development, and identifying unmet needs and advocating for human rights.

Conclusions—Peers unique perspectives and expertise was complemented with the standardized delivery of evidence-based intervention enhanced with mobile health.

Keywords

Serious Mental Illness; mHealth; peer support; illness self-management

Inadequate access to affordable and effective community-based mental health services has spawned alternatives to conventional providers and treatment approaches. Peer support is a non-manualized form of social support that leverages the practical knowledge and ability to

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relate that comes from having a lived experience with a mental illness[1]. Peer support services are informed by a philosophy that fosters self-determination, personal empowerment, and choice[2]. Certified peer specialists are individuals in mental health recovery who have been trained and certified to provide Medicaid reimbursable services[1]. Peer support has shown to increase individuals' hope, sense of control, ability to make positive changes, and decrease psychiatric symptoms[3]. Despite these benefits, conventional peer support does not adhere to evidence-based practices for psychiatric and medical illness self-management and does not follow protocols that ensure fidelity and systematically monitor outcomes.

To address this issue, new models of manualized peer-delivered interventions are being developed and evaluated. Despite promising clinical effectiveness, these interventions may not emphasize the core values and attributes of conventional peer-support services—potentially diminishing the unique contributions of peers. For example, manualized peer-delivered interventions may specifically limit or discourage peer support, sharing lived experience, and self-determination, potentially reducing the ability of peers to instill hope and empower consumers. Similar to other professions, there is a potential benefit to incorporating "providers" personal insights, perspectives, and related experience into their acquired professional knowledge and expertise. At the same time, the effectiveness of evidence-based interventions is strongly related to fidelity and protocol adherence. To date, the field has been challenged to find the appropriate balance that simultaneously leverages the value of "lived experience" with the need to adhere to the fidelity in delivering evidence-based practices.

We posit a new paradigm of peer-delivered services that combines the unique perspectives and expertise of peers with the standardized delivery of evidence-based interventions through a mobile health (mHealth) intervention. As an initial step, in this report, we describe certified peer specialists integration of peer philosophy into the delivery of a self-management intervention enhanced with mHealth.

With the assistance of certified peer specialists, we used a participatory research approach to develop a peer-supported integrated medical and psychiatric self-management intervention ("PeerTECH")[4–6]. PeerTECH follows a standardized protocol offered on eModules augmented by a smartphone App. A core feature of this intervention is the added components of peer support, sharing lived experience, and self-determination. Our pilot study established the feasibility of PeerTECH for adults with serious mental illness (SMI). Eight participants aged 60 years and older with SMI and cardiovascular disease, obesity, or diabetes received PeerTECH in their homes over three-months. Persons with SMI independently completed over 70% of self-management tasks every day on the smartphone application[4]. PeerTECH led to improvements in medical and psychiatric self-management, health confidence, hope, empowerment, and quality of life[4].

As part of this study, we examined peer case notes that were routinely entered on a peer care management electronic dashboard. The dashboard is a secure website that acts as a repository for consumer information. This study included consumers (N=8) with a mean age of 68.8 years (SD=4.9). The sample included five people diagnosed with major depressive

disorder, two people with schizophrenia spectrum disorders, and one person with bipolar disorder. Certified peer specialists (N=3) were all female and aged 55 years or older. Two peers identified as White and one peer identified as African-American. Over the course of the 12-week intervention, peers entered 146 case notes on the peer care management notes dashboard. The peer care management dashboard stores consumer information, including their demographic information, data on consumers' progress towards self-management goals, medication adherence, and alert messages if health indicators surpass pre-programmed thresholds. A certified peer specialist monitors the peer care management dashboard. Peers received a four-day training on PeerTECH. Peers were instructed to document the following on the peer care management dashboard: the purpose of the session, the goals identified by consumers, information given to consumers, and next steps. These case notes were meant to document consumer progress towards their goals and document short and long-term goals and action steps.

Our analysis was informed using the grounded theory method[7]. The codebook included *a priori* codes, derived from interviews and inductively from qualitative data. Codes were assigned to data and reviewed for themes. Thematic analysis was used to summarize themes identified in the data[8]. Member checking (i.e., a qualitative method used to validate research findings with participants) was used to substantiate results and resolve any dissimilar findings[9]. Through examining peer case notes we identified five themes that demonstrated certified peer specialists integration of peer philosophy into the delivery of a self-management intervention enhanced with mHealth. Below we summarize the results.

Encouragement of Self-Determination

Peers modified the delivery of the intervention to meet consumers' self-determined health goals. Peers were encouraged to work with consumers to select educational self-management programs from a menu of available programs available on the smartphone App on a weekly basis. Peers selected educational programs on the App based on the consumers' expressed needs and preferences, rather than in consecutive order. For example, a peer wrote "she was interested in the add on programs and I showed her what we had to offer…. She said, 'I started smoking again after 16 years of not smoking'. She continue to beat herself up; it was just a horrible week and I… And I thought, BING...let me give her the Cigarette and Smoking modules." Peer philosophy towards goal setting mirrors person-centered care, which places consumers at the center of care and respects each individual as a unique person with distinctive needs and goals.

Bio-Psychosocial-Spiritual Framework Guides Practice

Peers guided their practice using a bio-psychosocial-spiritual framework[10], in which they embraced biological, psychological, social, and spiritual determinants of mental health and physical health. Peers naturally focused on modifiable social determinants of mental health and physical health. For example, peers noted consumers as being lonely or socially isolated, and stressed the need for social inclusion to address their mental health and physical health needs. For example, a peer wrote, "social isolation continues to be [consumer's name] greatest challenge. [The peer supervisor] has referred her for peer support from Elder

Services, so hopefully there will be someone to visit even if/when my visits end." Given their own lived experiences as consumers in recovery, peers were naturally oriented to providing a whole person approach to address stressors that exacerbate physical and mental health conditions.

Sharing Lived Experience to Teach Self-Management Skills

Peers shared their lived experiences with mental health and physical issues and their strategies for self-management. For example, a peer wrote, "she talked a fair amount about the difficulty she has finding good food to eat, since due to her dental issues she can only eat soft food. Plus she doesn't care much for vegetables. I could suggest some recipes that she could try in the blender that she would like, because I have faced this same issue and we agreed to work on this next week." Peers discussion of similar lived experiences and their personal story of recovery is suggested to promote hope, empowerment, and social inclusion among consumers. All of these domains-- hope, empowerment, and social inclusion--may act as mechanisms of health behavior change within peer-delivered interventions.

Personalized Text Messages to Reinforce Self-Management Skill Development

Peers taught consumers self-management skills in-person, while peer written personalized text messages between in-person sessions reinforced these skills. Topics addressed in-person and through text messages included personal stories of recovery, medication adherence, coping skills training, and sleep hygiene. For example, a peer wrote, "we talked about her sleeping habits and what she does before she goes to bed and when she goes to bed and when she wakes up in the middle of the night…. I loaded the sleep module to help her look at different ways and methods that may help her sleep better. So I made a few suggestions and asked her to monitor her sleep like when she goes to bed, when she wakes up and when she gets up for the day." Peers used the smartphone App as a means to positively reinforce evidence-based health behavior change outside of in-person sessions. A potential unexplored function of text messaging by peers may be to provide support for sustained health behavioral change following the end of the active intervention.

Identifying Unmet Needs and Advocating for Human Rights

Peers identified unmet consumer needs and advocated for consumers' human rights. While all consumers were enrolled in aging and mental health services and were working with clinical providers, peers identified additional unmet needs to help consumers self-manage. Through the dashboard, peers requested additional social services for consumers including assistance with housing, hoarding, and grief counseling. For example, a peer wrote, "[Consumer] needs multiple services immediately or I believe she is at risk of a fall and/or losing her home. I had not really realized until yesterday when she really opened up to me how bad her situation was." Peers used a social justice framework[11] to inform PeerTECH and enriched the intervention protocol through integrating advocacy efforts and addressing unmet needs.

Peers unique perspectives and expertise was complemented with the standardized delivery of evidence-based intervention enhanced with mHealth. A future study is planned to test the effectiveness and implementation of PeerTECH in improving physical and mental health outcomes for adults with SMI *and* chronic health conditions.

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Biographies

Marianne Storm, PhD, MSc, is a 2017–18 Norwegian Harkness/Research Council of Norway Fellow in Health Care Policy and Practice. She is currently a Professor and Lecturer at the Institute of Health Sciences at the University of Stavanger. Storm has been the principal or co-investigator on three research projects supported by the Norwegian Research Council, and is a member of the steering board of the Norwegian Health Services Research Network. She has developed and conducted complex interventions involving health professionals and patients in mental health and elder care, aimed at improving quality through organizational learning, education and training, and inter-professional collaboration. Storm's Ph.D. work included the development of the "Service user involvement in practice" intervention, which is included in Norway's revised guidelines for the "Diagnosis, treatment and follow-up of people with psychosis disorder." She received a Fulbright Scholarship to serve as a postgraduate fellow at the Yale School of Medicine where she worked with Professor Larry Davidson. Storm's publications include 29 peer-reviewed articles in journals such as BMJOpen, BMC Health Services Research, and the International Journal of Integrated Care. She received her Ph.D. in Management from the University of Stavanger and a Master's of Health Science degree from the University of Bergen.

Karen L. Fortuna, PhD, MSW is a Ruth L. Kirschstein National Research Service Award T32 Training Post-Doctoral Fellow in Geriatric Mental Health Services Research at Dartmouth Centers for Health and Aging. Her primary research interest is service delivery strategies for older adults with serious mental illnesses and chronic health conditions. As a post-doctoral fellow at Dartmouth, she received an NARSAD Young Investigator Award to examine a peer-delivered and technology-supported self-management intervention.

Kelly Aschbrenner, PhD is an Assistant Professor of Psychiatry, Geisel School of Medicine at Dartmouth Assistant Professor of The Dartmouth Institute Dr. Aschbrenner's research interests are to conduct descriptive and intervention research involving social (family and peer) support for health behavior change among at-risk adults with serious mental illness. As a junior faculty member at Dartmouth, she received an NARSAD Young Investigator Award and an AHRQ Patient-Centered Outcomes Research Career Development Award (K12) to support the initial development of a line of research focused on engaging social networks and peers to support evidence-based treatment for health behavior change among individuals with serious mental illness. She has significant experience involving patients, families, and

peers in the process of intervention development and implementation. She has also developed skills in the application of mixed-methods research design employing rigorous quantitative research assessing the magnitude and frequency of constructs and rigorous qualitative research exploring the meaning and understanding of constructs central to intervention development.

Stephen J. Bartels, MD, MS is Professor of Psychiatry, Community and Family Medicine, and of The Dartmouth Institute for Health Policy and Clinical Practice; and a Geriatric Psychiatrist. He directs the Dartmouth Centers for Health and Aging, is PI for a Centers for Disease Control Prevention Research Center aimed at reducing cardiovascular risk in persons with SMI and in primary care, and is R01-funded from NIMH including an RCT comparing telehealth and integrated self-management coaching for persons with SMI and comorbid health conditions and a randomized implementation study comparing two approaches to implementing health promotion for persons with SMI in 48 mental health organizations across the nation.

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