Integrating behavioral healthcare for individuals with serious mental illness: A randomized controlled trial of a peer health navigator intervention

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ABSTRACT

Objective: Individuals with serious mental illness also have high rates of comorbid physical health issues. To address those issues, this population needs interventions that improve self-management of health and healthcare.
Methods: In order to improve the health and healthcare of individuals with serious mental illnesses, 151 consumers with serious mental illness were randomized to receive either usual mental healthcare plus the Bridge intervention ($n = 76$) or usual mental healthcare while on a 6 month waitlist ($n = 75$). The waitlist group received the intervention after the waitlist period.
Results: Change score comparisons (difference of differences) of the treatment vs the waitlist groups revealed that the treated group showed significantly greater improvement in access and use of primary care health services, higher quality of the consumer-physician relationship, decreased preference for emergency, urgent care, or avoiding health services and increased preference for primary care clinics, improved detection of chronic health conditions, reductions in pain, and increased confidence in consumer self-management of healthcare.
Conclusions: Peer providers using a manualized intervention can be an important part of the efforts to address the general medical care of individuals with serious mental illnesses.

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1. Introduction

The physical health of individuals with serious mental illnesses is severely compromised. Across systematic reviews, there is evidence that individuals with a serious mental illness (SMI) are dying about 10–20 years before their non-mentally ill peers (Chesney et al., 2014; De Hert et al., 2011; Walker et al., 2015). There are many reasons for this early mortality but largely it is due to preventable and treatable physical health conditions that are more prevalent and under-treated in this population. Individuals with SMI have higher rates of multiple chronic health conditions, such as diabetes, high blood pressure, high cholesterol, obesity, viral hepatitis, chronic obstructive pulmonary diseases, and cancer (Weber et al., 2009). These conditions are critical to address not only due to reduced quality of life and early mortality but because the cost of care for chronic conditions is also increasing rapidly. In 2002, treatment of chronic conditions cost approximately $331.9 billion but by 2013, costs had nearly doubled to $623.8 billion (Mandros, 2016). The higher rates of these conditions among this population are partly attributable to poor healthcare and lifestyle habits, but largely

result from taking psychoactive medications and disparities in healthcare on system, provider, and patient levels (De Hert et al., 2011).

It is critical to address the medical care factors that impair effective treatment of the physical health of individuals with SMI. There are numerous strategies that are being employed to coordinate the care of this population but only a few include self-management by consumers as a critical ingredient in their interventions (Kelly et al., 2014a). Across these many care integration models (Gerrity, 2016), an activated patient who can navigate a productive relationship with care providers is necessary.

The "Bridge" is a comprehensive, healthcare engagement and self-management intervention that teaches participants the skills to improve healthcare access and use. Our intervention is guided by Gelberg et al.'s (2000) Model for Vulnerable Populations, which includes the multitude of factors that can suppress or facilitate healthcare service use among those with SMI. The Bridge intervention has been described in detail previously (Brekke et al., 2013; Kelly et al., 2014b). Briefly, "the Bridge" intervention targets factors that negatively impact healthcare access, utilization, and outcomes among individuals with SMI. Consumers are taught the skills to access and manage their healthcare effectively by mental health peers known as peer health navigators. Peers are individuals who use their lived experience with

recovery from mental illness, along with skills from formal training, to provide behavioral health services. Peers are a rapidly increasing part of the workforce (Bachrach et al., 2016) but only a few studies have included self-management skills training from peer-delivered interventions for physical health in this population; however, there are promising signs for the efficacy of interventions that include these components (Kelly et al., 2014a). Participants are empowered through training to increase their use of routine health services and screenings, which may lead to the detection of new health diagnoses, to develop improved relationships with health providers, and to increase their self-management of healthcare.

2. Methods

2.1. Setting

The study was conducted in a large community mental health agency in California. The agency provides outpatient rehabilitative services to adults with SMI.

2.2. Sample

The sample was recruited using a short screening form (6 items) designed to assess whether individuals were connected to medical care or had unaddressed medical issues. An affirmative response to any of the items was a positive screen. Referrals came from treatment teams using their existing mental health caseloads, or from information sessions held for agency consumers. Study inclusionary criteria were: 1) over the age of 18; 2) admitted to one of the programs at the study site; 3) local residence for at least 3 months; 4) English fluency, 5) capacity to give informed consent; 6) diagnosed with schizophrenia, schizo-affective disorder, bipolar disorder, or major depression. The exclusion criteria were: 1) under conservatorship; 2) unable to give informed consent; 3) currently hospitalized. Participants received insurance coverage through Medicaid (97%) or Calworks (3%).

2.3. Design

Once consented, subjects were randomized using a computer-generated random number table to immediate health navigation or to a six-month waitlist, with health navigation commencing after the waitlist period for that group.

2.4. Procedures

Data were collected in 3 waves with 6 month intervals between assessments, based on the Bridge intervention being designed to last six months. The same outcome measures were assessed at each time point in a face-to-face interview conducted by three trained research assistants. Several features of this design should be highlighted. First, the waitlist design ensured that all participants eventually received the full health navigation intervention. Second, the mental health services received were unchanged as a result of participating in the study. All participants received the array of mental health services to which they were entitled, including outpatient rehabilitative services that were field based or office based, and on-site psychiatric services. Third, we did not restrict the consumers who could participate in this study based on diagnosis, functional level, or medical history. Fourth, treatment teams in the waitlist condition were instructed to maintain their routine care with every consumer, including routine healthcare assistance. As such, the comparator was treatment as usual (TAU)

Since this intervention was delivered within a single clinic, particular attention was paid to the issue of treatment contamination to TAU. First, we developed our intervention because the mental health staff (including psychiatric nurses) was unable to deal with health issues beyond those directly associated with mental health practice due to issues of time, billing, scope of practice, and documentation. According to staff and supervisors these challenges remained for the agency staff throughout the study. Second, we described the study design in detail to staff so that they knew that all participants would receive the intervention during the study period. Third, we asked supervisory staff and health navigators throughout the study if usual care had changed to mimic the intervention, which they did not report as occurring. Fourth, we instructed our health navigators not to share their intervention materials with the clinic staff, and they reported that they were not asked by clinic staff for these materials.

2.5. Measures

2.5.1. Character of the intervention

2.5.1.1. Peer providers. The three peer health navigators had caseloads of about 20 each throughout the study. Two of the navigators were African American females and one was a bilingual Latino male. Their lived experience came from personal recovery and/or the recovery of a loved one in their lives.

2.5.1.2. Service engagement and working alliance. Participant engagement in the intervention was measured with the Service Engagement Scale based on navigator ratings (Tait et al., 2002). The Working Alliance Inventory short form (Hatcher and Gillaspy, 2006) measured the quality of the relationship from the participant's perspective.

2.5.1.3. Intervention fidelity and intensity. Intervention fidelity was measured using a 20-item instrument developed in our pilot work based on interview, role play, and case records. Navigators recorded the number, length, and nature of in-person contacts and phone calls where they spoke directly to the participants.

2.6. Health and healthcare measures

2.6.1. Health service utilization

The preferred locus of care and health service use were assessed using two scales from an adapted version of the UCLA CHIPTS healthcare and health utilization survey (CHIPTS, 2012; Kelly et al., 2014b). First, participants identified where they usually seek care (emergency room, urgent care, primary care provider, clinic, or no place). Second, participants rated the frequency that they visited each type of provider ($0 = never$, $1 = once$ or twice, $2 = three$ to five times, $4 = over$ five times) in the prior 6 months. For analytic purposes, providers were classified as Emergency/Urgent Care if they were located in an emergency room or urgent care facility. Providers were classified as routine care providers if they were primary care, specialty care, dentists, optometrists, or alternative medicine practitioners.

2.6.2. Satisfaction with primary care provider

Participants were asked if they had a primary care provider. Participants with a routine primary care provider completed the Engagement with the Healthcare Provider Scale (Bakken et al., 2000) regarding their relationship with their primary care provider.

2.6.3. Self-management attitudes and behaviors

The ability to self-manage healthcare was evaluated for confidence and behaviors. Participants rated how confident they were about managing their health ($1 = not$ at all confident to $10 = very$ confident) on a 10-item scale. Items were based on skills expected to develop in health navigation. The behavioral self-management scale was adapted from the Mental Health Confidence Scale (Carpinello et al., 2000). This 14-item scale includes items on skills such as appointment making, pharmacy visits, establishing a medical home, and feeling that healthcare needs were heard and addressed. Participants estimated the frequency