Reducing Health Disparities for People with Serious Mental Illness: Development and Feasibility of a Peer Health Navigation Intervention

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People with serious mental illness die, on average, twenty-five years earlier than those in the population without a serious mental illness. This disparity is largely due to treatable medical conditions that remain unaddressed due to factors at the client, treatment, provider, clinic, and system levels of health and mental health service delivery. This article describes the development, initial implementation, and feasibility of the Bridge, a peer-staffed care linkage model situated in a mental health clinic that addresses barriers at multiple levels of service delivery by connecting clients to physical health services and developing client skills that result in self-management of health care. The Bridge was developed collaboratively with interventionists, clinic staff, and mental health peers and relies largely on an in vivo approach.

Key words: health; health disparities; health navigation; intervention; serious mental illness

People living with serious mental illness in the United States die, on average, twenty-five years earlier than those without a serious mental illness, largely due to preventable medical conditions and suboptimal medical care (Parks, Svendsen, Singer, & Foti, 2006). Studies have found a higher incidence of certain physical disorders, such as diabetes (Dickerson et al., 2006; Lester, Tritter, & Sorohan, 2005), obesity (Parks et al., 2006), high cholesterol or dyslipidemia (Dalmau, Bergman, & Brismar, 1997), metabolic and cardiovascular problems (Brunero & Lamont, 2010; Deakin et al., 2010), and cancer (Brown, 1998), among people.
with serious mental illness. When combined with a serious mental illness, physical illness can lead to other health conditions (Dickerson et al., 2005) and to a quality of life lower than that of both the general population and individuals with mental illness alone (Desai, Rosenheck, Druss, & Pearlin, 2002; Dickerson et al., 2008). These negative health consequences can affect other recovery goals such as housing, vocational training, and education (Bazelon Center for Mental Health Law [BCMHL], 2004).

Individuals with serious mental illness also face numerous barriers to access and use of health care services needed to prevent and manage chronic diseases at multiple levels of the service delivery system (De Hert et al., 2011; Druss, Rask, & Katon, 2008). At the system level, the chasm between the health and mental health care systems impedes access to care in both systems and reduces coordination of services (Miller, Druss, Dombrowski, & Rosenheck, 2003). Environmental barriers include difficulties in finding a specialist, long waits in clinics, transportation difficulties, geographical distance, and cost (Dickerson et al., 2003; Jeste, Gladsjo, Lindamer, & Lacro, 1996). Provider-level barriers for people with serious mental illness include limited training of mental health professionals in attending to their physical health concerns (Brown, 1998), limited training of primary care physicians in working with people with serious mental illness (Leigh, Stewart, & Mallios, 2006), and the stigma endured during encounters with health providers (Goldberg et al., 2007). At the individual level, additional barriers may result from mistrust of the system, lack of knowledge and resources, and behavioral or cognitive challenges in understanding and accessing services, along with educational, cultural, and language hurdles (Bradford, Coleman, & Cunningham, 2007; Cohen & Krauss, 2003; Dickey, Norwood, Weiss, Drake, & Azendi, 2002).

The high incidence of comorbid diseases among people with serious mental illness contributes to the high cost of health care for those who receive specialty mental health services (BCMHL, 2004), leading to increasing demands for solutions, nationally and internationally (Hedberg & Skärsäter, 2009; Kane, 2009; Maj, 2009; Shattell, Donnelly, Scheyett, & Cuddeback, 2011). The integration of health and mental health services is a means to address the fragmentation of health and mental health service systems (Anderson & Knickman, 2001; Druss et al., 2008; Goldberg, 1999). This article will discuss the conceptual model, development, and feasibility of an innovative community-based health navigator intervention for people living with serious mental illness.

Models for Integrating Services

The Bazelon Center for Mental Health Law (2004) has identified the following models for integrating health and mental health services for individuals with serious mental illness: (1) embedding of health care providers within mental health programs, (2) full-service health and mental health delivery programs housed in the same agency, and (3) collaboration between independent health and mental health providers. The first two models involve co-situated care, and the third is a
Care linkage model. These approaches address different barriers to care. Although co-situated approaches would appear to address more barriers, they require significant change in both health care policy and the structure and financing of service delivery (Goldberg, 1999). For example, although co-situated service programs show some impact, they are still challenged by separate funding streams for health and mental health services. Another barrier to integration is the difference in reimbursement plans for health and mental health services (BCMHL, 2004). Even with Medicaid, individuals with serious mental illness are served through fee-for-service arrangements, whereas physical health is addressed via managed care services (Goldberg, 1999). Moreover, integrating care contracts does not necessarily result in more integrated and efficient services (Laws, Gabriel, & McFarland, 2002; Stroul, Pires, & Armstrong, 2001; Vogel, 2001).

The third model, care linkage, improves collaboration between independent health and mental health providers and could be implemented in the context of many existing financing and service structure arrangements. One randomized study has shown increased utilization of primary care service by individuals with serious mental illness, increased preventative care visits, and better health outcomes when separate health and mental health services are coordinated by a nurse case manager (Druss, von Essenwein, et al., 2010). Although care linkage does not require co-situated health and mental health care, the use of highly paid professionals may introduce other cost considerations.

Care Linkage and Peer Providers

A promising alternative to care linkage provided by professionals is the use of peer providers to deliver these services (New Freedom Commission on Mental Health, 2003). Peer providers bring their own experience of living with a mental illness to assist clients with serious mental illness. Peers are one of the most rapidly growing segments of the mental health workforce in the United States (Druss, Zhao, et al., 2010), and peer-run interventions are becoming prominent in the recovery literature (Rosenick & Rosenheck, 2008; Solomon, 2004). Peers can be trained to work in a variety of settings to promote recovery and wellness (Cook, 2005; Davidson et al., 1999; Davidson, Chinman, Sells, & Rowe, 2006; Rosenick & Rosenheck, 2008; Solomon, 2004), and potentially offer more cost-effective services than other options (Battaglin, Rolf, Posner, & Freund, 2007; Jandorf et al., 2006; Steinberg et al., 2006). Furthermore, this peer provider option can offer training and employment opportunities to persons with serious mental illness and provide them with a stronger role and voice within these systems, a key goal of the Recovery Movement.

Peer interventions build on the experience and sensitivities of peers to focus on practical issues of access and utilization of health services. For example, individuals with a history of cancer have been used to help women with breast cancer access services (Darnell, 2007; Dohan & Schrag, 2005). Similarly, HIV/AIDS
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services have applied this model to reduce barriers to service utilization (Bradford et al., 2007), and such models are thought to be an effective strategy for addressing obstacles to accessing health care services. At present, only one randomized pilot trial, in which trained peers led manualized group psychoeducation classes on chronic disease management for participants with serious mental illness, has been completed (Druss, Zhao, et al., 2010). Compared to participants who received treatment as usual, participants who completed the course showed higher rates of utilizing primary care services (68.4% vs. 51.9%), more patient engagement in self-managing their health and health care, and higher quality of physical health. These results, although promising, may also suggest that patients may require significantly more assistance to see substantial improvements in well-being.

Given the potential benefits of a care linkage model with peer providers, the authors developed and implemented an intensive, individualized, peer health navigator intervention to facilitate access to physical health care for people diagnosed with serious mental illness who are engaged in the publicly funded mental health system in Los Angeles.

Theoretical Framework for Peer Health Navigation

Improving the physical health of people living with serious mental illness is a complex challenge, resulting from numerous factors at the levels of the individual, the provider, the health care system, and the broader geographic and sociopolitical environment. A sound conceptual framework is important for organizing the multiple factors that contribute to the use of health services and the physical health status of people living with serious mental illness, and can provide a road map for addressing factors to be targeted by an intervention.

The conceptual model underlying this intervention tailors Gelberg, Andersen, and Leake's (2000) Behavioral Model of Health Service Use for Vulnerable Populations (BMHSUVP) for those with serious mental illness. Gelberg and colleagues posit that health services usage is determined by a combination of predisposing characteristics (demographic, social structure, and health beliefs), enabling resources (personal/family and community), need for care (perceived and evaluated), and personal health care habits (diet, exercise, and self-care). Importantly, this model includes not only factors that lead to health care utilization, but also factors that influence the effectiveness of those services. To tailor this model for those with serious mental illness, a series of focus groups and interviews was conducted with clients, staff, and administrators from health care and mental health care agencies. Based on the information obtained in these interviews, it became apparent that the BMHSUVP model omits some important factors that suppress health service utilization among those with serious mental illness—namely severe psychiatric symptoms, stigma, and system bifurcation. The adapted theoretical model is shown in figure 1.
Figure 1  Health Behavior and Outcome Model for the Seriously Mentally Ill

Demographics
1. Age
2. Gender
3. Marital status

Health beliefs
1. Values concerning health and illness
2. Attitudes toward health services
3. Knowledge about disease

Social structure
1. Ethnicity
2. Education
3. Employment
4. Social networks
5. Occupation
6. Religion
7. Acculturation
8. Living conditions
9. Victimization
10. Psychological resources

Personal/family resources
1. Regular source of health care
2. Insurance
3. Income
4. Social support
5. Perceived barriers to care
6. Self-help skills
7. Ability to negotiate the system

Community resources
1. Residence
2. Health services resources
3. Case manager
4. Transportation
5. Telephone
6. Information sources

Perceived health
Vulnerable population health conditions

Evaluated health
Vulnerable population health conditions

1. System bifurcation
2. Stigma
   a. provider level
   b. internalized
3. Severe psychiatric symptoms

Personal health practices:
1. Diet
2. Exercise
3. Self-care
4. Substance use
5. Adherence to care

Peer-health navigation intervention

Use of health services:
1. Ambulatory care
2. Inpatient care
3. Emergency care

Health status:
1. Health & wellness
2. Quality of life
3. Satisfaction with care
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The model’s predisposing domain includes participant demographics such as age, gender, and marital status; health beliefs including values concerning health and illness; attitudes toward health services and knowledge of disease; factors related to social structure including ethnicity, level of education, employment status, social networks, occupation, religion, acculturation, immigration status, literacy, living conditions, victimization, and psychological resources (e.g., mastery, coping, self-esteem, cognitive ability, and substance abuse). Even if services are accessed, clients with serious mental illness may be predisposed to negative experiences with physicians as symptoms of their disorder, and cognitive deficits can make communication more difficult and stressful (Berren, Santiago, Zent, & Carbone, 1999).

The enabling domain includes personal and community characteristics required for the health care interaction to take place (Gelberg et al., 2000). The proposed model includes personal and family resources such as access to a regular source of care, insurance, income, social support, perceived barriers to care, self-help skills, ability to negotiate the system, and community resources such as establishing residence and availability of health services, case management, transportation, telephone, and other information sources.

The need domain includes self-assessment or professional assessment that health services are required to treat health conditions specific to an adult living with serious mental illness. Clients’ perceptions and clinicians’ evaluations of their clients’ physical health status may be influenced by the presence of serious mental illness (Gelberg et al., 2000). Physical health treatment and preventive care such as cervical screenings, mammograms, and immunizations (Carney, Allen, & Doebbeling, 2002; Druss, Rosenheck, Desai, & Perlin, 2002) may be given secondary priority relative to care for active psychiatric symptoms, maintaining stable housing, and financial insecurity (BCMHL, 2004).

Personal health behaviors play an important role in service needs (Gelberg et al., 2000). Diet, exercise habits, self-care habits, and substance use can have powerful influences on health status (Compton, Daumit, & Druss, 2006). Even if health habits are not poor, increased morbidity and mortality associated with serious mental illness can be traced, in part, to second-generation antipsychotic medications currently used to treat this condition. Studies have linked weight gain, dyslipidemia, diabetes, insulin resistance, and metabolic syndromes to these medications (Gianfrancesco, Grogg, Mahmoud, Wang, & Nasrallah, 2002; Hippisley-Cox, Vinogradova, Coupland, & Parker, 2007; Kreyenbuhl, 1999). Clients may be reluctant to seek out medical care due to concerns that they will be judged or blamed by their physicians for their self-care habits, motivational deficits, and low self-esteem (Dickerson et al., 2006). Moreover, clients who have difficulties in these domains are particularly likely to have difficulty adhering to treatment regimes or following a physician’s instructions.

Stigma has a pervasive influence on the receipt of health care among those with serious mental illness. Stigma refers to imputed personal characteristics that identify persons as being undesirably different from normal, and may result in
negative self-attributions as well as devaluation by others (Link & Phelan, 2001). When the stigma is mental illness, negative attitudes can lead to avoidance and discrimination on the grounds of perceived unacceptability or inferiority. The consequences of stigma can include decreased life opportunities, loss of independent functioning, and decreased use of physical health services among people living with serious mental illness (BCMHL, 2004). Moreover, recognizing oneself as a member of the devalued group can have negative effects on one's self-concept (Link, 1987; Link & Phelan, 2001; Scheff, 1994) and lead to fear of discrimination and feelings of shame. Physical health providers are not immune to stigmatizing attitudes and behaviors toward individuals with serious mental illness (Goldberg et al., 2007). These attitudes may be rooted in the fear of unpredictable behavior and concern with regard to an individual's noncompliance with treatment. Some primary care providers report concerns that people with serious mental illness may become bizarre, agitated, disorganized, or even violent in their waiting rooms (BCMHL, 2004). These negative attitudes can cause individuals living with serious mental illness to receive poor quality of care from the physical health community (Goldberg et al., 2007).

System bifurcation is the separation of physical and mental health services, which poses a serious issue for those with chronic mental and physical health issues. At a system level, at least four types of separation between mental and physical health care may exacerbate the problems for persons with serious mental illness:

1. geographic, or lack of colocated medical and mental health services;
2. financial, including but not limited to separate funding streams for medical and mental health services;
3. organizational, or difficulty in sharing information and expertise across these systems; and
4. cultural, or provider focus on particular symptoms or disorders rather than on the persons with those problems (Druss & Newcomer, 2007).

Bifurcation discourages people with a mental illness from accessing and utilizing services (Lieberman & Coburn, 1986). Current insurance policies reinforce this bifurcation because neither Medicare nor Medicaid pays for two services on the same visit. The Los Angeles County Department of Health Services has suggested that the cost of treating a person with serious mental illness can be ten times that of treating a client without mental illness in a public health clinic because clinics are paid a flat fee regardless of case complexity. This provides little incentive for doctors or clinics to treat those with serious mental illness. Mental health professionals are unable to provide health services, as physical health care is beyond their scope of practice or training and is not reimbursed by mental health funding streams (Brown, 1998). Hence, even colocated services require multiple visits and pose structural barriers to adequate care, and in addition to the fiscal divide, the separation of the professional cultures of physical and mental
Health systems can cause mutual mistrust and rivalry (BCMHL, 2004). Differences between physical and mental health care provision can also exist in terms of information storage and sharing, software compatibility, privacy rules, and professional standards.

This understanding of the multifaceted challenges of integrating health and mental health care for the population with serious mental illness led to the development of the Bridge peer health navigator intervention.

**The Bridge: A Peer Health Navigator Intervention**

The Bridge health navigator intervention was developed using a collaborative approach including the members of the research team, service providers, and peers. The intervention was based on the model, presented above, of the barriers that lead to problematic health access, utilization, and outcomes for people living with serious mental illness. The model addresses system bifurcation and practitioner issues, and is designed to assist clients regardless of their symptom severity or functional level. The use of peer intervention can help ameliorate stigma for clients, as peer experiences with mental illness may provide a common ground to build rapport, an essential component of this type of intervention. The Bridge intervention moderates the impact of the factors that impede both service utilization and health outcomes by strengthening the enabling factors and ameliorating the suppressing factors. The four components of the intervention are assessment and planning, coordinated linkages, consumer education, and cognitive-behavioral strategies. A central goal of the Bridge is to give clients the skills and experience necessary to self-manage their health care activities to the greatest degree possible after the intervention ends.

**Assessing and Planning**

In order to plan what assistance is needed, the navigator takes the client through a thorough assessment of his or her health status, current use of health services, and experience with accessing and using health services, as well as barriers encountered. This process results in a collaborative health navigation plan, which includes the client's health care and wellness goals (Mueser et al., 2006). A step-by-step strategy is then developed to guide the goal-directed activity and to provide a basis for monitoring progress. This activity increases clients' awareness of their health care needs and their history of health care service use, which increases their motivation to participate in navigation and self-management strategies.

**Coordinated Linkages**

Based on an integrated care linkage model (BCMHL, 2004), coordinated linkages consist of several activities that assist clients as they navigate the health care system, including helping them make appointments, communicate with a range of
medical care providers, and ensure follow-up care; handling pharmacy and specialty care issues; and ensuring adherence to medical treatment plans. This model was drawn partly from patient navigation interventions developed for people with cancer and people with HIV (Battaglia et al., 2007; Bradford et al., 2007; Darnell, 2007; Dehan & Schrag, 2005; Jeste et al., 1996; Steinberg et al., 2006). Peer navigator experiences, with both their mental illness and their navigation of physical health and mental health services, make them uniquely sensitive to and aware of challenges their peers face. The method is also based on the principles of Assertive Community Treatment (Stein & Test, 1980; Test et al., 1991), in that an in vivo approach to linkage and training activities is stressed. Compared to models that predominantly use a classroom training approach, (e.g., Goldberg et al., 2013), the Bridge features an in vivo approach that develops self-management skills in real-world health care settings. The in vivo approach is important because these real-world health care settings are ideal for teaching and learning self-management skills that are sustainable.

Consumer Education

The third intervention component is consumer education, which is based on principles of patient education (Prohaska & Lorig, 2000). Patient education is theoretically rooted in the health belief model, in which an individual's response to illness is rooted in his or her beliefs about health and health care. Hence, providing knowledge to alter health beliefs can lead to better subjective perceptions of health and better decisions about illness and its management (Goldman & Quinn, 1988; Prohaska & Lorig, 2000). For the current intervention, the consumer education component includes education about the health care system, how to partner with medical providers, treatment compliance, self-advocacy, appropriate interaction skills, and health and wellness issues (such as regular health care, diet, and exercise), as well as education about health benefits and entitlements.

Cognitive-Behavioral Strategies

The fourth intervention component is the use of cognitive-behavioral strategies to support behavior change and maintenance with regard to health care utilization, and is based on cognitive-behavioral and social learning theory (Dobson & Hamilton, 2002). Central to the intervention is a method for guiding the behavioral work, which is expressed explicitly and succinctly as for them, with them, by them. Using behavioral strategies of modeling, role playing, coaching, and fading, peer navigators enhance client skill development, using a systematic process that entails gradually shifting navigation activities to the client (fading) with the aim of maximizing the client's management of his or her health care to the greatest extent possible.

As an example, making a medical appointment by phone can be challenging. At first, the navigator makes the appointment with the client watching and lis-
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The Bridge intervention is based on appropriate screening and engagement. The authors have developed a six-item screening tool that targets current health problems and health service use. The tool is designed so that an inclusionary response on any one of the six items indicates the need for health navigation. The screen can be administered in a self-report or interview format (in person or by phone). It has been used by health navigators, by case managers, and by staff as part of agency intake forms. Once a positive screen occurs, the navigator meets with the client (ideally in person) and uses an engagement script that details the navigator intervention, the roles of the navigator and the client, the activities that will occur, and the timeline. One agency has used orientation groups to screen and engage clients.

Intervention Target Points

In practice, there are eight challenge points, identified as critical junctures by prior research and focus groups, at which peer navigators may intervene to facilitate successful health care utilization. Figure 2 presents these points for intervention as well as the role at each point. As can be seen, they range from client awareness of health care needs, through resource location, to follow-up care.

Intervention Timeline

The Bridge is implemented in two phases. Phase one is characterized by frequent in-person contact between the peer health navigator and the client. This is an intensive four-month phase during which the navigator engages and helps the client complete an initial assessment, collaborates with the client to develop health and wellness goals and create a navigation plan, works with the client toward
**Figure 2  Bridge Health Navigator Intervention**

<table>
<thead>
<tr>
<th>Health and wellness needs</th>
<th>Consumer awareness</th>
<th>Scanning environmental resources</th>
<th>Initial provider contact</th>
<th>Getting to the appointment</th>
<th>Waiting room experience</th>
<th>Exam room experience</th>
<th>Treatment plan and follow-up</th>
</tr>
</thead>
<tbody>
<tr>
<td>3. Help with insurance benefits as necessary.</td>
<td>3. Provide health education tailored to consumer's goals.</td>
<td>3. Find insurance and/or benefits information.</td>
<td>3. Coach interactions with staff and patients (in vivo).</td>
<td>3. Coach interactions with staff and patients (in vivo).</td>
<td>3. Help consumer communicate needs.</td>
<td>3. Help consumer communicate needs.</td>
<td>3. Help consumer communicate needs.</td>
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<tr>
<td>Navigator role</td>
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achieving the goals, helps the client navigate through the health care system, and provides active health education and skill building to shape and reinforce positive behavior and move the client toward more independence. An in vivo navigation approach is preferred for modeling and coaching, although this depends on client preference and skill. This means that navigators routinely accompany clients on doctor, pharmacy, and lab visits in order to build their competence and independence, and to help with the transition to self-management.

Phase two is a two-month step-down phase in which clients' health activities become increasingly more independent. In phase two, the health navigator connects with the client via phone or in person once a week or as needed to check on his or her progress; help troubleshoot emerging health-care-related issues; and provide support for the client to facilitate progress toward established goals, revise goals, or set new goals. The length of phase two depends on the needs of the client as some clients require step-down support for longer than others.

Although a timetable has been offered for the intervention, it is a general guideline and subject to variation based on the intensity of client need. The authors have found that individualization of both phases is critical, as clients progress at different rates in learning the skills for autonomous health navigation and self-management.

Outcomes

Outcomes targeted by the Bridge intervention have been classified as proximal or distal. Proximal health outcomes include increased use of ambulatory and outpatient care, decreased usage of emergency room and urgent care health services, improved health status, increased health care self-efficacy, greater satisfaction with health care, and higher health-related quality of life. Distal outcomes include better general life satisfaction, improved functional outcomes, and higher self-esteem.

Feasibility Test of the Bridge

Clinic Sites

The Bridge peer health navigator intervention was implemented at two outpatient mental health clinics in Los Angeles. Both sites are part of a large contract provider called Pacific Clinics that serves 3,500 clients annually and has large numbers of clients in need of assistance with coordinating health care services. The sites were selected because of their willingness and capacity to participate in implementing this pilot intervention. The clients were enrolled in full-service partnerships that targeted the most functionally impaired and highest users of mental health services, those with histories of homelessness, or those most in need of engagement in intensive mental health services. The intervention featured low caseloads (20:1) and was based on an Assertive Community Treatment approach (Gilmer, Stefancic, Manning, Etiner, & Tsemberis, 2010).
Peer Navigator Qualifications

Because the peer navigator is a crucial component of this intervention, members of the research team and service providers reviewed the qualifications required to be a successful navigator. Several local agencies offer a comprehensive peer mental health worker training program that combines ten weeks of classroom instruction with six weeks of intensive internship at a mental health agency. It was agreed that peer health navigators should participate in an official training program to learn the skills necessary for working in a mental health clinic setting. Other mutually approved qualifications for a peer navigator were good communication skills, flexibility, ability to work well in a variety of settings, capacity to develop rapport with peers, and comfort in communicating with mental health and medical professionals.

Navigator Training

Peer health navigator training was initially conducted at one of the participating sites. The navigator was placed at the site and worked with different teams. He spent two months shadowing clinic nurses, team leaders, and service providers to get a sense of the operation, workflow, and ethos of the clinic. After this two-month period, the navigator began working with clients to pilot test the assessment tools and began testing the navigator model. During this time, he received in-depth training with the research team about the health navigator model and the theory supporting it, background on understanding the scope of the problem, setting boundaries, avoiding dual relationships, setting up a supervision plan, dealing with stress on the job, and becoming integrated into the staff culture of the clinic.

Manual Development

Using information gathered from the needs assessment combined with the stage model of manual development (Carroll & Nuro, 2002), the authors have manualized the Bridge intervention. The stage model proposes three different stages for manual development (Carroll & Nuro, 2002; Carroll & Rounsaville, 2008). The advantage of this model is that it leads to a manual that is well tested in a variety of settings and with different populations. A drawback is the length of time needed to move from bench to clinic, which contributes to a disconnect between research and practice that needs to be addressed (Dobson & Hamilton, 2002; Moras, 2002). Thus, the authors used a modified version of the stage model, which emphasizes working closely and continuously with practitioners to ensure that the manual is applicable to the real world and to allow it to be disseminated more quickly (Moras, 2002). To do this, a manual development working group was created, including members of the research team, clinic staff, and the health navigator. This working group method allowed the authors to receive continuous feedback on the manual contents, and resulted in ongoing refinement and improved utility in a real-world setting.
The manual includes detailed instructions, scripts, and forms for screening, engagement, assessment, goal setting, planning for medical visits (physician, lab, or pharmacy), post-visit review, and monitoring progress. It also explicates the for them, with them, by them training method and offers client education material.

Fidelity and Monitoring

The authors have developed protocols for establishing and maintaining fidelity to the Bridge, as well as strategies for monitoring the extent of implementation at an agency. The fidelity tool consists of rating the navigator’s competence in accomplishing the critical elements of the intervention. This evaluation is based on in vivo observation, verbal case descriptions, and record review. The extent of implementation is monitored via a software program that requires the navigator to list both client contacts and contacts on behalf of the client, as well as the location, length, and topic of each contact.

Results from Pilot Data

Preliminary data on the feasibility, outcomes, and implementation of the Bridge have been obtained from seven clients who received the intervention during this early developmental phase. Concerning outcomes, data have been received from four clients who completed baseline and follow-up assessments after six months of the intervention. These four clients showed positive changes in the total number of current health problems (baseline $M = 6.5, SD = 0.7$; follow-up $M = 4.0, SD = 0.8$; Mann-Whitney $z = -2.4, p < .03$) and an increase in the number of health screenings in the previous six months (baseline $M = 1.75, SD = 1.00$, follow-up $M = 4.25, SD = 1.9$; Mann-Whitney $z = 2.1, p < .06$). The number of medical hospital admissions began low and stayed low, as did the number of emergency room visits for physical problems. There was a decline in the number of outpatient visits to primary care providers in the previous six months (baseline $M = 6.5, SD = 4.6$; follow-up $M = 3.3, SD = 3.4$) that was not statistically significant. According to the navigator, this reduction was due to better follow-up care procedures that reduced visits for the same health problems over time. Based on these highly preliminary data, there is some suggestion that the intervention could be related to improved health status and more appropriate use of outpatient services.

Pilot data on the quantity of client contacts were also analyzed. Of the seven fully engaged clients, the average contacts made with or on their behalf were 2.3 per week, with a range of 1.4 to 2.8 contacts per week. Eighty percent of the contacts were with the client, and 20 percent were with another person on behalf of the client. These contacts spread somewhat evenly between in-person (60%) and phone contacts (40%). Based on field notes kept by the navigator, the duration of the contacts ranged from under five minutes to over four hours. The navigator reported that he moved to the step-down phase with all clients, during which the contacts decreased by over 75 percent as clients transitioned to more self-management of their health care.
The range of health-related issues among pilot clients was enormous. Six of seven clients had not had any routine care from a primary care physician in several years. Most identified their psychiatrist as their primary medical care doctor. Only one individual had had an eye exam in the previous five years. Only one client had a regular dentist. One individual had ongoing foot lesions that resulted in repeated hospitalizations due to inadequate treatment follow-up. Most clients used the hospital as their routine health care provider. The navigator secured health benefits for one undocumented Latino and accompanied most clients on doctor visits. During these visits issues ranged from communication problems with nurses and doctors to difficulties handing the waiting room and exam room experiences. There were also frequent problems with treatment compliance that resulted in ongoing and increasingly serious health problems and overuse of emergency services. One individual was too anxious to take public transportation to the medical clinic, so the navigator first accompanied her and sat next to her on the bus; on subsequent trips he sat several seats behind her, and then he drove behind the bus as she rode alone, all to encourage independence through reduced navigator presence.

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There were many navigator contacts to ensure follow-up care and treatment compliance. Pharmacy interactions and managing multiple medications were found to be common difficulties for clients. Pharmacy personnel were pleased to work with the navigator as they reported challenges in working with individuals with serious mental illness. Health care physicians and nurses were generally welcoming to the navigator and most often allowed him into the examining room. Once they had worked with the navigator, physicians actively engaged his services and felt he improved the effectiveness of the medical visit.

Because the work can be stressful, supervision and support of the peer navigator is a crucial aspect of this intervention. To address this, the peer health navigator met weekly, or as needed, with the project manager to debrief, talk about what was working and not working, and discuss any troubling situations. The health navigator also participated in weekly team meetings to discuss navigation-related issues with the project team.

**Agency Integration**

The authors have found that working closely with mental health agency staff is critical to adequately integrating peer health navigation into the agency clinical model. For example, staff suggested that the peer health navigator be included in team meetings, and that goals and treatment plans be shared (considering compliance issues) so that coordination and integration could be achieved. Other forms of inclusion and communication have developed over time that facilitate the integration of health navigator services. If mental health agencies have not previously integrated peers into their approach, professional staff are required to take on additional work.
Next Steps

The purpose of this article was to describe the development, implementation, and feasibility of a peer health navigator intervention called the Bridge. The authors developed the Bridge peer health navigator intervention for many reasons. Several service models have been advocated for dealing with the physical health of those with serious mental illnesses, yet models of care that integrate care through co-situation of services require multiple structural and financial changes to the existing health care system. A care linkage model, such as the Bridge, improves collaboration between independent health and mental health providers, and can be used in the context of many existing financing and service structure arrangements. The use of peer health navigators is an emerging best practice for addressing health needs of people living with serious mental illness. There is accumulating evidence that peer-based services can improve outcomes in health and in other aspects of recovery among people living with serious mental illness, and are also cost effective (Rosenick & Rosenheck, 2008).

The results from the feasibility work reported here are encouraging. The authors are currently analyzing data from a small randomized trial (n = 24) of the Bridge intervention, and are refining the treatment manual. They are also working on an agency implementation and sustainability protocol, which will be manualized to deal with both administrative and intervention integration issues at the staff level, and they have developed protocols for training new peer health navigators. Nonpeer paraprofessionals and professionals have recently been trained in the Bridge intervention, but the use of professionals has proven difficult due to cost considerations. Finally, the Bridge intervention was developed using a population with serious mental illness that was very functionally impaired and living in an urban area. As the effectiveness of this intervention is investigated further, it will be important to consider the degree to which the intensity of the intervention and its in vivo approach are required for other less challenged populations and settings.

References

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