Disengagement From Mental Health Treatment Among Individuals With Schizophrenia and Strategies for Facilitating Connections to Care: A Review of the Literature

Julie Kreyenbuhl¹⁻³, Ilana R. Nossel⁴, and Lisa B. Dixon^{2,3}

²Division of Services Research, Department of Psychiatry, University of Maryland School of Medicine, Baltimore, MD; ³Department of Veterans Affairs Capitol Healthcare Network (VISN 5) Mental Illness Research, Education and Clinical Center, Baltimore, MD; ⁴Department of Psychiatry, Columbia University College of Physicians and Surgeons, New York, NY

Disengagement from mental health services can lead to devastating consequences for individuals with schizophrenia and other serious mental illnesses who require ongoing treatment. We review the extent and correlates of dropping out of mental health treatment for individuals with schizophrenia and suggest strategies for facilitating treatment engagement. Although rates vary across studies, reviews of the literature suggest that up to one-third of individuals with serious mental illnesses who have had some contact with the mental health service system disengage from care. Younger age, male gender, ethnic minority background, and low social functioning have been consistently associated with disengagement from mental health treatment. Individuals with co-occurring psychiatric and substance use disorders, as well as those with earlyonset psychosis, are at particularly high risk of treatment dropout. Engagement strategies should specifically target these high-risk groups, as well as high-risk periods, including following an emergency room or hospital admission and the initial period of treatment. Interventions to enhance engagement in mental health treatment range from low-intensity interventions, such as appointment reminders, to high-intensity interventions, such as assertive community treatment. Disengagement from treatment may reflect the consumer's perspective that treatment is not necessary, is not meeting their needs, or is not being provided in a collaborative manner. An emerging literature on patient-centered care and shared decision making in psychiatry provides suggestive evidence that efforts to enhance client-centered communication and promote individuals' active involvement in mental health treatment decisions can also improve engagement in treatment.

Key words: treatment dropout/serious mental illness/ engagement strategies

Introduction

Schizophrenia and other serious mental illnesses generally require ongoing maintenance treatments over the long term to facilitate recovery. As evidenced by treatment recommendations and other clinical guidelines for schizophrenia published in the past decade, there are a number of psychopharmacologic and psychosocial treatments for schizophrenia for which there is consistent scientific evidence showing that they improve outcomes.^{1,2} Although the lack of widespread availability of these evidence-based treatments is a significant problem in the United States, the current article will address another challenge that can seriously undermine the effectiveness of evidence-based care for schizophrenia: consumers' disengagement from mental health treatment. While some of the observed dropout may reflect reduced need for services, disengagement from mental health services can be a significant problem for individuals with schizophrenia that can lead to devastating consequences including exacerbation of psychiatric symptoms, repeated hospitalizations, first episode or recurrent homelessness, violence against others, and suicide.^{3,4} In this article, we review the extent and correlates of dropout from mental health services for individuals with schizophrenia and suggest strategies for facilitating treatment engagement and thus access to evidence-based care. For these consumers and their caregivers, such strategies, if successful, may not only provide relief from adverse and potentially traumatic events but may also enable them to focus on the important tasks of adjustment, community integration, and recovery from mental illness.

¹To whom correspondence should be addressed; Division of Services Research, Department of Psychiatry, University of Maryland School of Medicine, 5th floor, 737 West Lombard Street, Baltimore, MD 21201; tel: 410-605-7466, fax: 410-605-7739, e-mail: jkreyenb@psych.umaryland.edu.

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Failure to Engage in Mental Health Treatment Among Individuals With Serious Mental Illness

Before presenting information on the rates, correlates, and reasons individuals with serious mental illness provide for dropping out of mental health treatment, we begin by describing what is known about individuals who fail to seek mental health treatment at all, an important distinction from individuals who disengage from treatment. Our knowledge of the extent to which individuals with serious psychiatric illness who, despite their symptoms, never make contact with the treatment system is limited. Clinicians and researchers alike interact with their patients and research participants primarily in mental health treatment settings and may assume that due to the often-distressing nature of psychotic symptoms, everyone with a serious mental illness eventually comes to the attention of mental health providers. However, research from over the past 30 years using data collected from large, community-based, face-to-face household surveys such as the Epidemiologic Catchment Area (ECA) survey and the National Comorbidity Survey (NCS) do not support this assumption. Using the Diagnostic Interview Schedule, the ECA survey conducted in the 1980s revealed that 35%-50% of individuals with Diagnostic and Statistical Manual of Mental Disorders (Third Edition) diagnoses for schizophrenia or another serious mental illness had not received any mental health treatment in the previous 12 months.^{5,6} Using the World Health Organization Composite International Diagnostic Interview, the NCS conducted between 1990 and 1992 showed that 53% of individuals with serious mental illnesses had not received any mental health treatment in the prior year, ⁷ suggesting that lack of treatment engagement has remained a consistent phenomenon since the ECA study. Although the extent of lack of contact with the mental health system observed in the ECA survey and the NCS may not be directly comparable due to differences in methodologies employed, the results of both studies nevertheless suggest that a relatively large proportion of individuals with serious mental illness do not seek out mental health treatment. In the NCS, the only factors found to be associated with not engaging in treatment were younger age and urban residence. With regard to reasons provided by individuals for not seeking mental health services, over half reported that they did not believe they had a problem requiring treatment. Among those who had not sought treatment but who perceived themselves to need help, the most commonly reported reasons for not seeking care included wanting to solve the problem on their own and thinking that the problem would get better by itself. Many individuals who did not seek help felt that treatment would not be effective. While longitudinal studies have suggested that a subgroup of individuals with schizophrenia have good outcomes without treatment, providing appealing and effective treatment to those who could derive benefit but who choose to avoid treatment remains an ongoing challenge.

Rates and Correlates of Disengagement From Mental Health Treatment Among Individuals With Serious Mental Illnesses

Among individuals with schizophrenia or other serious psychiatric disorders who have some contact with mental health services, a variety of manifestations of disengagement or drop out from treatment have been described. This has included evaluations of missed initial appointments, referral failures from emergency services, nonadherence with aftercare following psychiatric hospitalization, and various other conceptions of treatment dropout. Because no standard operational definition of treatment disengagement has been employed and study samples have included individuals with a variety of psychiatric disorders, rates and correlates of dropout have varied across studies. Rates of treatment disengagement observed in studies involving community samples, such as the ECA survey and the NCS, are also likely to differ considerably from studies utilizing clinical samples of persons who have a demonstrated need for mental health services. Community samples may include individuals who may not need or benefit from clinical services and for whom outreach efforts to promote engagement, discussed later in this article, may be of little value. For example, using data from a community sample in the NCS, Kessler et al⁷ found that one-sixth (16.6%) of respondents who met diagnostic criteria for a serious mental illness had dropped out of treatment, defined as having sought treatment during the prior 12 months but not being in treatment at the time of the interview for a reason other than symptom improvement.

With regard to studies using clinical samples, in their review of studies published from 1980–2003, Nosé et al⁹ found that an estimated 24% of individuals with psychosis do not "attend appointments as scheduled." Among several recent studies that have examined the phenomenon of lack of outpatient follow-up after hospital discharge, rates of failure to attend a first outpatient appointment have ranged from 18%–67%, with a median rate of 58%. ^{10–15} Such high rates of failure to engage in outpatient treatment following a hospitalization point to this period as a critically important time for implementing strategies shown to facilitate engagement.

Still other definitions of disengagement from mental health services among those with a serious mental illness have been employed. Fischer et al⁴ examined patterns of service utilization in a nationwide sample of US veterans with schizophrenia and bipolar disorder who had had contact with the Department of Veterans Affairs (VA) health-care system in fiscal year 1998. Over the 5-year follow-up period, almost one-quarter of the cohort had

one or more gaps in contact with health-care services lasting at least 12 months, with over a third of this group (9% overall) having a gap spanning the final 2 years of the follow-up period and were thus considered "lost to care." In a recent review of studies, both exclusively focused on individuals with schizophrenia or psychotic illnesses and studies that included broader community mental health center populations, O'Brien et al¹⁶ observed over time periods ranging from 1–9 years that approximately 30% of patients disengage from mental health treatment services. Taken together, the available research suggests that a significant proportion of individuals with a serious mental illness are not engaged in mental health treatment as a result of dropping out of some form of care.

A number of studies and reviews provide insight into the characteristics of individuals who fail to engage in mental health treatment and the reasons they give for not remaining in care. In terms of sociodemographic characteristics, younger age, male gender, and ethnic minority background have been consistently associated with treatment disengagement. ^{4,7,9,16,17} Low social functioning and social isolation, as evidenced by not being married or being out of contact with family, as well as low socioeconomic status, as indicated by low educational attainment and unemployment, have also been linked to dropout. 4,7,9,16,17 In terms of clinical characteristics, individuals with a co-occurring serious mental illness and a substance use disorder have very high rates of treatment disengagement, as do individuals with higher levels of psychopathology. ^{9,16,17} Relative to other serious mental illness diagnoses, a diagnosis of schizophrenia has been found to be associated with lower rates of treatment disengagement, although it is unclear to what extent this might be related to the symptoms or course of the illness or to efforts of the treatment system to increase outreach and engagement efforts for patients with schizophrenia. 16 Other clinical variables correlated with treatment disengagement include lack of insight and a "sealing-over" recovery style involving minimizing symptoms and their impact. 16,18 In addition, some research has found poor alliance with the therapist 19-21 as well as a lack of active participation in treatment on the part of the consumer²¹ to be correlated with dropout. The initial period of treatment is the most likely time for dropout to occur^{9,16} and is thus a crucial period for implementing strategies aimed at establishing strong and trusting relationships with mental health providers to facilitate long-term engagement in treatment.

A few studies have sought to examine from the individual's perspective the reasons for discontinuing contact with the mental health system. Among NCS respondents who had dropped out of treatment, the most commonly cited reason for disengaging was the desire to solve the problem on one's own; less commonly cited as a reason for dropout was inconvenience. In other studies, reasons

for disengaging from treatment included dissatisfaction with the treatment ^{19,22,23} and feeling that they had improved, ^{19,22,23} feeling that treatment would be unlikely to help, ²² or feeling that they were too unwell. ²⁴ Individuals also cited a desire to be an independent and able person and a feeling of loss of control due to medication and its effects as reasons for disengaging from treatment.²¹ Other reasons included practical constraints such as having forgotten appointments^{22,24} and having moved, ¹⁹ as well as cost, transportation, lack of time, and bureaucratic issues. 19,22,23 It is also possible that some individuals with serious mental illnesses disengage from treatment due to fear of the mental health system as a result of previous experiences of mistreatment, overtreatment, and coercive treatment. In a review of the literature by O'Brien et al¹⁶ on treatment disengagement, when asked why they had dropped out of treatment, individuals cited unsympathetic providers, not being listened to, not being able to actively participate in decision making, and being dissatisfied with services as reasons for disengagement.

The research suggests that at least some individuals with serious mental illnesses who drop out of treatment may be making the judgment that they either do not need or cannot benefit from services. The data also suggest that consumers often perceive treatment to be unhelpful. Although the limitations of this research preclude our knowing whether some or all of the treatments received by individuals who disengaged from care were indeed beneficial, these data do point to the importance of patients' perceptions of treatment in their decision making around whether to remain engaged in care. Some of the adverse outcomes associated with dropout from treatment suggest that many individuals could experience improvements in their symptoms and life circumstances if they could access treatment and high-quality evidencebased practices that are provided in a manner that addresses consumers' preferences.

Empirically Supported Interventions for Increasing Engagement in Mental Health Treatment

Given the potential for adverse consequences of treatment dropout, as described above, it is important for mental health treatment systems and providers to develop and implement strategies to increase treatment engagement and decrease dropout, particularly for those at greatest risk of disengaging from care. In this section, we will review interventions that have research support for reducing dropout from treatment among individuals with schizophrenia and other serious mental illnesses. Of note, the focus of this article is on interventions that have been shown to impact the proximal outcome of increased engagement in mental health treatment. Although a few of the more intensive interventions (discussed below) have also been shown to favorably

affect important distal outcomes, including functioning, quality of life, and use of hospital and crisis services, these outcomes are not discussed in detail in this article.

Interventions to increase treatment engagement occur along a spectrum of intensity, from low-intensity interventions, such as appointment reminders, that can be applied universally, to high-intensity interventions, such as assertive community treatment (ACT), that are reserved for those at highest risk for adverse consequences of treatment dropout. Low-intensity interventions that can be applied widely are typically implemented at periods of high risk for treatment dropout, such as following an emergency room or hospital discharge or the time of entry into outpatient treatment.

With regard to low-intensity interventions used at periods of increased risk of dropout, Klinkenberg and Calsyn²⁵ describe a number of "system responsiveness" variables that have been found to be associated with increased rates of aftercare following hospital or emergency room discharge. These include minimizing wait time to the first appointment, having inpatient staff clarify expectations about the role of aftercare, making appointments for clients with the aftercare agency, using "reaching out" techniques (eg, having the aftercare agency contact clients before the appointment, telephone prompts, reminder letters, and use of referral coordinators), and discussing or providing medications at the outpatient visit.²⁵ Boyer et al¹⁰ evaluated linkage strategies aimed at increasing attendance at outpatient appointments following hospital discharge and found that the most common linkage strategy that was significantly associated with clients keeping their first appointment after discharge was a discussion about the discharge plan between the inpatient staff and outpatient clinicians. Other strategies that increased attendance at appointments following discharge included having the patient meet with outpatient staff and visit the outpatient program prior to discharge. 10 Rossotto et al 14 describe the development of a "community reintegration" curriculum aimed at helping hospitalized patients develop skills in symptom identification, medication management, relapse prevention, and the making and keeping of appointments. The curriculum is delivered in group format in the inpatient unit prior to discharge and in the outpatient setting following discharge. A small pilot study found the community integration curriculum to be a promising strategy for enhancing treatment adherence following hospital discharge. 14

There are a number of individuals with serious mental illnesses for whom these low-intensity interventions are not adequate to establish a firm linkage to ongoing mental health care but for whom the risk of dropout is not so great as to merit more intensive approaches such as ACT. Such individuals may benefit from a medium-intensity approach to treatment engagement such as critical time intervention (CTI). CTI is a time-limited psychoso-

cial model that aims to strengthen individuals' ties to services providers and social networks and to provide emotional support and practical assistance during a time of transition. CTI was initially developed with the goal of decreasing return to homelessness among mentally ill homeless men being discharged from a shelter into the community²⁶ but has since been adapted in other transitional settings, including upon discharge from acute psychiatric inpatient units. For example, Dixon et al³ adapted CTI for individuals with schizophrenia and other serious mental illnesses who were being discharged after psychiatric hospitalization within the VA healthcare system and were at risk for treatment dropout. In this study, the population defined as at risk for treatment dropout included individuals with a co-occurring substance use disorder, a history of medication nonadherence, and/or an inpatient admission during the 2 years prior to the current admission, followed by a readmission, an emergency room visit, or no outpatient visits within 30 days after discharge. The CTI intervention was provided for 3 months by CTI clinicians, who chose among 9 focal areas that were either risk factors for treatment disengagement or potential mediators of engagement specific to each client. Areas of focus included systems coordination, engagement in psychiatric services, sustaining motivation in substance abuse treatment, medication adherence, social support network, life skills training, integration of medical care, establishing of community linkages, and practical needs assistance. CTI is provided in phases, with decreasing intensity over time. Initially CTI workers work very closely with clients, developing a trusting, collaborative relationship. As treatment linkages are established, the CTI worker steps back to observe the functioning of the client's support network and ultimately assists in the transition from CTI to community supports. In a randomized controlled trial, CTI recipients had fewer days to their first outpatient service following hospital discharge, were more likely to have an outpatient visit, had more total mental health and substance abuse visits following discharge, and had greater continuity of outpatient care than individuals receiving usual care.³ Service use was measured for 6 months following the index hospitalization. For participants in CTI, this includes 3 months of follow-up following the completion of the intervention. This study also examined quality-of-life outcomes and found that certain quality-of-life indicators (satisfaction with safety and greater frequency of social contacts) were improved among those who received CTI, although there were no differences in other quality-of-life variables, including satisfaction with living situation, daily activities and functioning, family relations, finances, work and school, and health.

Individuals at highest risk for treatment dropout and its adverse consequences may require more intensive and/ or longer term intervention to facilitate treatment engagement. Case management programs can provide the consumer with assistance in coordinating care and navigating the challenges of participating in basic services. Case management extends the CTI model over a longer period of time that permits the case manager to provide concrete help for a greater range and severity of problems. The main goals of case management are to keep people in contact with services, to reduce the frequency and duration of inpatient admissions, and to improve outcomes with a particular focus on social functioning and quality of life. A Cochrane review of studies of case management interventions found that receipt of case management services increases the number of consumers remaining in contact with mental health treatment services.²⁷

ACT is a highly intensive outpatient intervention in which community-based clinical treatment is provided by a multidisciplinary team to individuals who have had difficulty engaging in traditional treatment services. Though ACT has similar goals to case management, its practice is quite different. ACT teams serve as team-operated, community-based service providers, providing treatment services directly in clients' homes. ACT teams assertively and consistently try to engage clients, not accepting initial client refusal as the endpoint of treatment. A Cochrane review of ACT demonstrated that individuals receiving ACT are more likely to remain in contact with services than people receiving standard care.²⁸ ACT was shown to decrease hospital admissions and decrease homelessness among individuals receiving ACT services²⁷ and is generally regarded as an evidence-based practice.^{1,2}

As noted previously, a co-occurring substance use disorder significantly increases the risk of treatment dropout among people with schizophrenia and other serious mental illnesses. Given the high prevalence of co-occurring substance use and psychiatric disorders and the role that the comorbidity plays in increasing the risk of dropout, it is particularly important to target interventions to increase treatment engagement to this group. Providing integrated mental health and substance use treatment has been shown to increase retention in treatment29 and increase active engagement in treatment³⁰ as compared with nonintegrated treatment. Other interventions, including home visits, flexible hours, short waiting lists, frequent contact with a single worker, and short gaps between hospital discharge and the first appointment have been found to increase engagement among individuals with substance use disorders.¹⁶

Another important group to target for interventions aimed at increasing treatment engagement and decreasing treatment dropout is individuals who have been newly diagnosed with a psychotic illness. As indicated above, younger age has been consistently found to be associated with treatment dropout. In addition, the initial period of treatment has been found to be the most likely time for dropout to occur. Therefore, this group of young, newly

diagnosed consumers is at particular risk for treatment dropout, and efforts to enhance treatment engagement are particularly important. The data regarding early interventions for individuals with psychotic illnesses are limited, although there are some indications that early interventions may improve treatment adherence. For example, Petersen et al³¹ tested an integrated treatment model that included ACT, family involvement, and social skills training. This intervention found differences in treatment retention after 2 years but not after 5 years.³¹ Another early intervention program for psychosis, the Lambeth Early Onset (LEO) Team, found lower rates of treatment discontinuation in the group that received more intensive and specialized support. 16 The LEO Team was a United Kingdom-based multidisciplinary team that provided assertive outreach and evidencebased interventions, including antipsychotic medication, cognitive behavioral therapy, family counseling, and vocational strategies to individuals presenting for the first time with a nonaffective psychotic disorder.³² Further research is needed to determine which individuals are not in need of ongoing treatment and which strategies are most successful in promoting treatment engagement among those with first-episode psychotic illnesses.

Emerging Interventions for Increasing Engagement in Mental Health Treatment

As mentioned previously, individuals with serious mental illnesses have cited the inability to actively participate in treatment decision making and not being listened to by providers as prominent reasons for dropping out of mental health treatment. Other studies have shown poor therapeutic alliance between the client and provider to be associated with treatment disengagement. An emerging literature on patient-centered care and shared decision making in psychiatry provides suggestive evidence that efforts to enhance patient-centered communication and promote clients' active involvement in mental health treatment decisions can improve outcomes, including engagement in treatment.

The 2001 Institute of Medicine Report, Crossing the Quality Chasm: A New Health System for the 21st Century, identified "patient centeredness" as an essential component of quality health care. 33 Patient-centered care is respectful and responsive to consumer preferences, needs, and values, which should be used to guide all decisions about medical care. 33 The Report of the President's New Freedom Commission on Mental Health 44 describing the emerging recovery movement transforming mental health services also emphasizes consumer and family involvement in care, thereby bringing to the forefront the connection between clients' and families' participation in treatment decisions and achieving recovery from mental illness. Only recently, though, has the mental health field begun to embrace the concept of patient-centered care

and shared decision making, with the lack of focus in these areas put forward as one explanation for the high rates of treatment nonadherence and dropout observed among individuals with serious mental illnesses.^{35,36}

Shared decision making is a collaborative process in which consumers and providers recognize each other as experts and equal partners, working together to exchange information and clarify values in order to reach consensus on health-care decisions. 36-39 The treatment provider's role in shared decision making is to educate consumers concerning available, evidence-based treatments; to acknowledge and help clarify their preferences and values; and to empower them to take an active role in the decision-making process.³⁸ Consumers provide expertise via their lived experience with the illness and by sharing their needs and values and communicating what provides meaning in their lives. 40 In the general medical literature, evidence suggests that efforts to incorporate patients' perspectives and to encourage greater involvement in care via shared decision-making results in greater adherence to treatment regimens, more effective disease self-management, better disease control, and greater patient satisfaction. ^{41–44} A number of studies have also documented the role of patient-physician communication in improving outcomes, with communication characterized as patient centered (eg, when physicians ask fewer closed-ended questions, give fewer directions, interrupt patients less frequently, involve patients in treatment decisions) having positive effects on satisfaction, adherence to recommended treatment, and health status.45,46

Although the literature in psychiatry on the effects of patient-centered communication and shared decision making on consumer outcomes, including treatment engagement, is just emerging, the findings of several studies are promising. For example, an early observational study of individuals with schizophrenia found that those rated by their provider as having formed a good therapeutic alliance at 6 months were more likely to remain engaged in psychotherapy, to adhere to medications, and to achieve better functional outcomes after 2 years compared with other clients.⁴⁷ It should be noted that although related, the concepts of therapeutic alliance and shared decision making are not interchangeable, with the former most commonly defined in terms of agreement on the goals of treatment, the methods for achieving the goals, and the bond between the patient and clinician. While logic would dictate that having a strong therapeutic alliance should positively influence the use and outcomes of shared decision making, the precise nature of the relationship between these 2 phenomena has not been empirically evaluated.

A series of recent studies indicate that a number of strategies aimed at structuring patient-provider communication in a manner that facilitates shared decision mak-

ing can improve client outcomes. For example, Van Os et al⁴⁸ developed the Two-Way Communication Checklist (2-COM), a list of 20 areas of perceived need (eg. housing, relationships, symptoms, side effects) that individuals with a serious mental illness might experience. Clients complete the 2-COM immediately prior to a mental health visit, during which they use the checklist to initiate a discussion with their clinician about any areas of concern they wish the clinician to address. In a randomized controlled trial in individuals with schizophreniaspectrum diagnoses receiving outpatient mental health treatment in 7 European cities, use of the 2-COM was associated with significant improvements in patient-clinician communication and led to more changes in treatment plans by clinicians relative to standard care. Similarly, Priebe et al⁴⁹ developed a manualized intervention to be used during a typical outpatient visit in which clinicians use a computer program (DIALOG) to initiate a discussion with their clients regarding their satisfaction with 11 life domains (eg, mental health, physical health, job situation, friendships) and 3 treatment domains (practical help, psychological help, medication). As with 2-COM, the goal of DIALOG is to make explicit the consumer's perspective on those areas of need that require attention by the clinician. With DIALOG, clients' ratings are entered directly into the computer, with the software program displaying comparisons of ratings for each domain with those from previous visits in order to highlight areas of improvement or those where attention should be focused. In a randomized controlled trial in 6 European countries, individuals with schizophrenia who received the DIALOG intervention had improved quality of life, fewer unmet needs, and greater satisfaction with treatment after 1 year compared with treatment as usual.49

Another example of an intervention designed to facilitate shared decision making around medication treatments for serious mental illness has been evaluated in a pilot study in the United States. Deegan et al³⁹ developed the Decision Support Center (DSC), a peer-facilitated service offered in the waiting area of an outpatient mental health clinic. The key feature of the DSC is an internet-based computer program that supports recovery and shared decision making through client education and elicitation of their concerns about psychiatric medications. The computer program generates a 1-page report that the client takes to the visit, that is forwarded electronically to the provider, and that serves to facilitate a shared discussion of uncertainties or concerns related to medications that the patient is experiencing. Although a formal evaluation of the effect of the DSC on outcomes awaits completion of an ongoing randomized controlled trial, the program has garnered favorable reviews from both individuals with serious mental illnesses and clinicians with regard to improving the efficiency of consultations and empowering clients to participate in treatment decision making.³⁹

Although use of the aforementioned strategies for enhancing shared decision making led to significant improvements in clients' quality of life, satisfaction with treatment, and communication with their providers, the extent to which these approaches definitively increase engagement in mental health treatment and reduce dropout among individuals with serious mental illnesses has not been rigorously evaluated. However, the results of a recent study of an intervention specifically developed to increase patient empowerment, treatment attendance, and retention in mental health treatment among minority patients hold promise. The manualized Right Question Project-Mental Health consisted of 3 half-hour training sessions for clients involving education and role-playing around formulating questions and seeking information about mental health treatments from providers, sharing their concerns about treatments with providers, and taking a more active role in their care. In a pretest/posttest design, participants exposed to this culturally supported intervention were more likely to attend scheduled appointments, to be retained in treatment, and to schedule at least one visit during the 6-month follow-up period relative to the comparison group. 50 Although the study is limited by its quasi-experimental design and the majority of study participants had diagnoses of depression and anxiety disorders, the investigation provides additional support that increasing consumer activation and empowerment can facilitate engagement in mental health treatment.

Conclusion

A vast body of research spanning the last several decades suggests that far fewer than half of all individuals with serious mental illnesses in the United States who require ongoing mental health treatment are adequately connected to care. Despite our knowledge of client- and treatment-related factors associated with treatment dropout risk, it appears that little progress has been made in targeting existing interventions shown to enhance engagement with mental health services to those most in need. More research is needed to better appreciate the extent to which interventions that can enhance treatment engagement are used in regular clinical practice and the nature of consumer-, provider-, and systemrelated barriers to their successful implementation. Future research should also focus on building a solid foundation of research evidence around several promising patient-centered interventions that facilitate activation of consumers and families to participate in treatment decision making. These relatively easily implementable, recovery-oriented programs may have wide-ranging effects for consumers with serious psychiatric illnesses, by enabling their access to evidence-based mental health services and subsequent attainment of recovery from mental illness.

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