

Integrating outcomes assessment and research into clinical care in inpatient adult psychiatric treatment

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The authors describe an evolving outcomes project implemented across the adult inpatient programs at The Menninger Clinic. In the inpatient phase of the project, patients complete a computerized battery of standardized scales at admission, at biweekly intervals throughout treatment, and at discharge. In addition to providing aggregate data for outcomes research, these assessments are incorporated into routine clinical care, with results of each individual assessment provided to the treatment team and to the patient. The inpatient phase of the project employs Web-based software in preparation for a forthcoming follow-up phase in which patients will continue after discharge to complete assessments on the same computer platform. This article begins with a brief overview of related research at the Clinic to place the current project in local historical context. Then the authors describe the assessment instruments, the

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ways in which the assessments are integrated into clinical care, plans for follow-up assessments, the central role of information technology in the development and implementation of the project, the primary research questions, and some of the major challenges in implementing the project. The article concludes with a discussion of the ways in which the project can serve as a platform for a broad future research agenda. (Bulletin of the Menninger Clinic, 73[4], 259-295)

To remain viable, healthcare services must be linked to objective and standardized measures of clinical outcomes—if not driven by them (Fonagy, 1999; Institute of Medicine, 2001; Kane, 2006). Porter and Teisberg (2006) are emphatic on this point: “*Mandatory measurement and reporting of results is perhaps the single most important step in reforming the health care system*” (p. 7, emphasis in original). Yet, as these authors make plain, progress in basing clinical practice on outcomes data has been slow throughout general medicine, although there are exemplary exceptions. Progress also has been slow in inpatient psychiatry, notwithstanding the availability of a plethora of standardized measures (Rush, First, & Blacker, 2008). In this article, we endeavor to delineate the role for integrating outcomes assessment and research into clinical care in inpatient psychiatric treatment. We describe a current longitudinal, hospital-wide outcomes assessment effort under way at The Menninger Clinic, beginning with a historical context for such assessments and concluding with a broader research agenda for the future.

Historical context of outcomes assessments at The Menninger Clinic

Recognition of the need to integrate research and practice at The Menninger Clinic is not new. In 1937, the first volume of the *Bulletin of the Menninger Clinic* included an issue (no. 6) devoted to the potential interface between clinical practice and psychological research. The editors’ introduction to this issue acknowledged the challenges in bringing together clinical psychiatry and psychological science but included the hopeful note that psychological test data were routinely used in case discussions. Begun in 1954,

the Psychotherapy Research Project (Horwitz, 1974; Robbins & Wallerstein, 1956; Sargent, Horwitz, Wallerstein, & Appelbaum, 1968; Wallerstein, 1986) was a notably ambitious effort to research clinical practice, and one that made extensive use of psychological test data (Appelbaum, 1977). The project was designed to assess mechanisms of change in outpatients referred for psychoanalysis and psychoanalytically oriented psychotherapy. Among the influential conclusions of this landmark outcomes study was the recognition that the therapeutic alliance played a central role in the unanticipated mutative effects of supportive psychotherapy processes—a conclusion that was at variance with the initial assumption that interpretive interventions related to early developmental conflicts would be required for substantial (“structural”) change (Horwitz, 1974). This conclusion led to further studies of the relations between therapist interventions and the quality of the therapeutic alliance, a research program focused on patients with borderline personality disorder (Allen et al., 1996; Allen, Gabbard, Newsom, & Coyne, 1990; Colson et al., 1988; Gabbard et al., 1988; Horwitz et al., 1996).

Psychotherapy has remained a central intervention at The Menninger Clinic, albeit currently in the context of hospital treatment. As Will Menninger’s (1982) *Guide to the Order Sheet* (first copyrighted in 1939) attests, clinical outcomes in hospital treatment are associated with a host of interventions and potentially therapeutic relationships in a complex social milieu. Given the prominent role of inpatient treatment at The Clinic, clinical research after the Psychotherapy Research Project increasingly focused on hospital treatment per se. One legacy of the psychotherapy research was an examination of treatment alliances in the inpatient milieu (Allen, Deering, Buskirk, & Coyne, 1988; Allen, Tarnoff, & Coyne, 1985). Consistent with the institution’s focus on treatment resistance, a substantial research effort was directed to addressing problems with patients whose illnesses were perceived as “difficult-to-treat” in the hospital milieu (Allen et al., 1986; Colson et al., 1985; Colson, Allen, Coyne, Deering et al., 1986; Colson, Allen, Coyne, Dexter et al., 1986). At the same time, research was directed toward determining patient characteristics related to suitability for long-term treatment (Allen et al., 1984; Allen, Scovern, Logue, & Coyne, 1988), and we conducted selected inpatient outcomes

(Allen et al., 1987) and follow-up studies of adult patients hospitalized for extended periods with trauma-related problems (Allen, Coyne, & Console, 2000) and personality disorders (Gabbard et al., 2000). In addition, the hospital initiated work on developing a computerized medical record that would incorporate researchable, quantitative data into routine clinical assessment and documentation (Clifford, 1999; Fonagy, 1999; Graham, 1999).

Yet inpatient psychiatric treatment has been a moving target, and nowhere is that phenomenon more conspicuous than in the history of The Menninger Clinic. Reflecting national trends, lengths of stay at the Clinic decreased dramatically during the 1980s and 1990s. This changing clinical landscape ultimately eventuated in the decision to forge a partnership with a medical school for the purpose of sustaining and enhancing research and education as well as clinical practice. This decision had a significant impact on shaping clinical services: In preparation for relocation from Topeka, Kansas, to Houston, Texas, to partner with the Baylor College of Medicine, the Clinic was downsized to a number of specialized inpatient programs, with typical lengths of stay in adult clinical services ranging from 4 to 8 weeks. Albeit quite lengthy by contemporary standards, these lengths of stay were dramatically reduced by comparison to previous decades, when stays of a year or more were commonplace.

This major transition interrupted the effort to create a researchable electronic medical record and has been associated with a gradual reconfiguration of programs that calls for renewed efforts to assess outcomes. The hospital adopted a primary clinician model (Haslam-Hopwood, 2003) in which psychologists and social workers carry the role of coordinating the patient's treatment program in collaboration with a multidisciplinary team that includes the patient as a key member (Munich, 2000). Currently, four adult inpatient programs are operating: the Professionals in Crisis program (Bleiberg, 2006); the COMPASS program for young adults (Poa, 2006); the HOPE program for patients with relatively chronic disorders; and the Comprehensive Psychiatric Assessment Service, which offers comprehensive inpatient assessment and briefer inpatient treatment. The Adolescent Assessment and Treatment Program has initiated a separate outcomes assessment project based

on an extension of the Mentalization-Based Treatment model (Bateman & Fonagy, 2006, 2008) to adolescents with emerging personality disorders. This more theoretically focused effort assessing treatment outcomes for adolescent patients has been developed under the auspices of the Child and Family Program (see Sharp et al., this issue).

Prior to the transition from Kansas to Texas, for quality assurance purposes, we had collected limited treatment-evaluation data for adult inpatients that included a brief, standardized measure of prominent symptoms (the Behavioral and Symptom Identification Scale [BASIS-32]; Eisen, Normand, Belanger, Gevorkian, & Irvin, 2004) as well as a measure of patients' perceptions of the quality of care. This latter measure, *Your Treatment and Care*, evolved over time in relation to changes in treatment programs and emerging quality assurance concerns (Allen & Fultz, 2003; Frager et al., 1999; Webb, Clifford, & Graham, 1999). Months after the relocation from Kansas to Texas, we resumed collecting these data for quality assurance purposes, and the (unpublished) findings were reassuring in showing stability across time—notwithstanding the substantial challenges associated with such a major transition. Albeit reassuring, the results obtained prior and subsequent to the relocation were limited in value by virtue of far less than full patient participation, resulting in part from the lack of a project-dedicated research staff.

The current hospital-wide adult outcomes assessment effort

In addition to the need for healthcare organizations to apply quality improvement initiatives and outcomes evaluation to the delivery of care, many experts have called for evidence-based clinical practice (American Nurses Association, International Society of Psychiatric Nursing, American Psychiatric Nursing Association, 2007; American Psychiatric Association, 2009; American Psychological Association, 2009; National Association of Social Workers, 2009). This approach relies on a translation of existing research and best practice guidelines to clinical practice. Others have suggested a more direct approach known as practice-based evidence that translates real-time outcomes to clinical decision-making at

the point of service (Horn & Gassaway, 2007; Lambert & Burlingame, 2007; McDonald & Viegbeck, 2007; Westfall, Mold, & Fagnan, 2007).

Moving from a quality assurance to a practice-based evidence and research orientation, we incorporated four key modifications into the current Adult Outcomes Project. First, we decided to incorporate the results of assessments into routine clinical care, with the findings reported to the clinician coordinating the patient's care who, in turn, reviews the findings with the patient and communicates them to the treatment team. Second, while aspiring to keep the assessment brief, we added some new measures to increase its clinical and research utility. Third, to gauge patients' progress, we instituted biweekly assessments in addition to the admission and discharge assessments. Fourth, we employed a cadre of research assistants to engage patients in the assessments; this process uses laptop computers and Web-based software such that results are automatically incorporated into a hospital-wide database. Notably, not only does evidence support the validity of computerized assessment but also some research suggests that respondents may be more willing to reveal sensitive information when the data are collected via computers (Turner et al., 1998; Wolford et al., 2008).

The first phase of the project, implemented in April 2008, involved establishing the inpatient assessments. The second phase, planned for the latter half of 2009, will implement longitudinal follow-up assessments (up to 18 months postdischarge). This article proceeds in the following steps: We enumerate the assessment instruments; we discuss our initial experience in incorporating the findings into clinical care in the inpatient phase of the project; we describe the protocol for the follow-up study; we note the crucial role of the information technology department in the development and implementation of the project; we delineate our major treatment evaluation and research questions; we describe the barriers to and challenges involved in implementing the project; and we conclude with our plans to expand the research aims of the project in the future. We report initial results from the inpatient assessments in a companion article (see Latini et al., this issue).

Assessment Instruments

To facilitate implementation of research-based assessments into a complex clinical system, we have begun with a “minimalist” approach to assessment, designing a brief screening battery that can be completed easily by most patients in less than an hour. Table 1 provides an overview of the measures employed in the inpatient phase and the planned follow-up phase. The admission assessment consists of two questionnaires we designed to provide demographic and personal history information as well as five standard scales to assess symptoms and personality problems. We also assess patients’ perceptions of the quality of their care along with their treatment engagement and working alliances. In addition to repeating a number of the inpatient assessments, the follow-up phase will include a measure of the patients’ experience of the transition to postdischarge care as well as assessment of treatment adherence and perception of the quality of outpatient care.

Questionnaires

Personal Information. This questionnaire includes demographic information and aspects of past history potentially pertinent to treatment and outcome, namely, exposure to traumatic events, substance abuse, legal problems, extent of prior psychotherapy and hospitalization, and stopping medication or psychotherapy against advice (see Appendix for content that goes beyond demographic data).

Health, Social Support, and Stress. This brief questionnaire (see Appendix) will be added to the inpatient admission assessment as a baseline when the follow-up project is implemented. The items address several facets of recent history, including health-related behavior, social support, and exposure to recent stressors; these questions will be repeated at follow-up assessment points.

Standardized Scales

RAND Short-Form 36 Health Survey (SF-36, version 1). The RAND SF-36 (Ware, Snow, Kosinski, & Gandek, 1993) is a widely used instrument composed of eight scales to assess several aspects of physical and emotional health and well-being: physical functioning, impact of physical health on role functioning, bodily pain,

Table 1. Overview of Assessments

Measure	Admission	Bi-weekly	Discharge	Two weeks postdischarge	Every 3 months postdischarge
Patient Information	x				
Health, Social Support, Stress	x			x	x
Inventory of Interpersonal Problems	x				
Relationship Questionnaire	x				
RAND SF-36 v.1 *	x		x	x	x
BASIS-24 **	x	x	x	x	x
Beck Depression Inventory	x	x	x	x	x
Your Treatment & Care		x	x		
Perception of Care, inpatient			x		
Elements of Post-Hospital Treatment Plan			x		
Care Transitions Measure				x	
Treatment adherence				x	x
Perception of Care, outpatient				x	X

*RAND SF-36 = RAND Short Form - 36. **BASIS-24 = Behavior and Symptom Identification Scale

general health, vitality, social functioning, impact of mental health on role functioning, and mental health. The measure also includes two scales for overall physical and mental health. This scale also will be added to the inpatient assessments as a baseline when the follow-up project is implemented.

Behavior and Symptom Identification Scale (BASIS). We use this scale to assess predominant symptoms and symptom change over the course of treatment; in addition to an overall severity score, the BASIS includes six scales: Depression/Functioning, Relationships, Self-Harm, Emotional Lability, Psychosis, and Substance Abuse. Our original quality assurance project used the BASIS-32 (Eisen et al., 2004); for the current outcomes project, we switched to the revised BASIS-24, which has the advantages of increased brevity and readability as well as improved psychometrics (Eisen & Grob, 2008). In addition to its brevity and widespread use, the BASIS was developed with a consumer-oriented focus; that is, its item content is based on problems for which inpatients commonly seek help. In addition, the BASIS has the advantage of extensive normative data for inpatient, residential, and outpatient settings that can provide benchmarks. For example, we can determine if patients reach a level of symptom improvement by the time of discharge that would be consistent with symptom levels associated with admission to lower levels of care.

Beck Depression Inventory (BDI-II). We selected the BDI-II (Beck, Steer, & Brown, 1996) to assess severity of depression, given its extensive research history as well as ease of interpretation in relation to normative data. Moreover, the BDI is sensitive to change and suitable for tracking the course of improvement over the course of a several-week inpatient stay. In addition, depression is a prominent problem in the Clinic population (e.g., routinely showing the highest elevation of the six BASIS scales).

Inventory of Interpersonal Problems (IIP). Different forms of the IIP have evolved since its initial development (Horowitz, Rosenberg, Baer, Urewno, & Villagenor, 1988); we use the short (32-item) form of the IIP (Horowitz, Alden, Wiggins, & Pincus, 2000) for a brief assessment of personality disturbance. Akin to the consumer-friendly nature of the BASIS, the items on the IIP were chosen on the basis of problems that patients commonly present for psychotherapy. The IIP includes eight scales: Domineering/Con-

trolling, Vindictive/Self-Centered, Cold/Distant, Socially Inhibited, Nonassertive, Overly Accommodating, Self-Sacrificing, and Intrusive/Needy. To aid interpretation, these scales can be arrayed on a circumplex around two orthogonal dimensions: dominance (ranging from Domineering/Controlling to Nonassertive) and affiliation (ranging from Cold/Distant to Self-Sacrificing).

Relationship Questionnaire (RQ). The RQ (Bartholomew & Horowitz, 1991) is a brief measure of adult attachment style. The measure provides respondents with prototypical descriptions of secure, dismissing, preoccupied, and fearful attachment patterns; respondents select the prototype that best describes the way they generally are in their close relationships, and then they rate on a 7-point scale the extent to which each description corresponds to their general relationship style. This measure promises not only to be clinically useful in assessing problems in patients' attachment relationships but also shows promise in predicting problems in treatment relationships and adherence. In the general medical context, for example, Ciechanowski and colleagues have conducted a series of studies of diabetic patients showing that those with insecure attachment styles associated with greater interpersonal distance are more likely to be dissatisfied with healthcare providers and to have greater difficulty forming partnerships with them (Ciechanowski & Katon, 2006); these problematic partnerships are associated with poorer medication compliance (Ciechanowski et al., 2004); and these patients are more likely to have poorer adherence to glucose monitoring (Ciechanowski, Katon, Russo, & Walker, 2001) and poorer glycemic control (Ciechanowski, Hirsch, & Katon, 2002). In the mental health setting, Dozier and Tyrrell (1998) have shown that insecure (avoidant) attachment is associated with rejection of treatment providers and poorer treatment utilization. More generally, a number of studies suggest that security of attachment is an important contributor to the therapeutic alliance and hence to treatment outcome (Mikulincer & Shaver, 2007).

Perception of Quality of Care

Your Treatment and Care. For a number of years we have been using and refining a measure of patients' perception of the quality of care, Your Treatment and Care. In its initial iterations, the mea-

sure was administered at discharge only and asked patients about the helpfulness of the full range of interventions used in their care (e.g., different therapies, psychoeducational groups, family work, medication) as well as their perception of the milieu, their relationships with different team members, their involvement in treatment planning, their active participation in treatment, and their perception of their treatment outcome. We had collected these data for quality assurance purposes and over a period of years we found these results to be consistently positive and stable. Accordingly, continuing to administer this instrument was unlikely to be informative, and we did not have any comparison data from other institutions, prompting a switch to a more widely used, standardized instrument (described next). Yet we retained a relatively small number of items from our original instrument to assess patients' working relationships with members of their treatment team as they evolved over the course of treatment, as well as their perception of their active engagement in treatment (see Appendix). These items are first administered at two weeks after admission and then readministered at biweekly intervals thereafter.

Perception of Care (PoC). For reasons just stated, we recently adopted a standardized, 20-item measure of perceived quality of care, Perception of Care, inpatient version (Eisen & Dickey, 2008). Item content is divided into four domains: Communication/Information Received From Provider, Interpersonal Aspects of Care, Continuity/Coordination of Care, and Global Evaluation of Care.

Follow-Up Measures

Follow-up assessments will be administered at 2 weeks postdischarge and at 3-month intervals up to 18 months postdischarge. As indicated in Table 1, several instruments administered in the inpatient phase will be repeated, namely, our Health, Social Support, and Stress items along with the SF-36, BASIS-24, and the BDI-II. In addition, measures specific to the follow-up phase will be administered.

Care Transitions Measure (CTM-15). This 15-item scale (Coleman, Mahoney, & Perry, 2005) assesses patients' perception of the smoothness and safety of their transition to a lower level of care. This measure was designed for hospitalized geriatric patients and

yet the content is equally applicable to the transition from psychiatric inpatient to outpatient care; hence the present project will serve to validate the scale for broader applications. Factor analyses indicate that the items can be grouped into four domains: critical understanding of how to manage (e.g., “When I left the hospital, I was confident I could actually do the things I needed to do to take care of my health”); personal preferences (e.g., “Before I left the hospital, the staff and I agreed about clear health goals for me and how these would be reached”); preparation for management of illness (e.g., “When I left the hospital, I had all the information I needed to be able to take care of myself”); and having a care plan (e.g., “When I left the hospital, I had a readable and easily understood written plan that described how all of my health care needs were going to be met”). This scale will be administered only once, at 2 weeks postdischarge.

Elements of Posthospital Treatment. In the follow-up phase, prior to discharge, we will be asking patients to document the key elements of their posthospital treatment plan (e.g., individual psychotherapy, medication management, intensive outpatient program, partial hospital program, 12-step meetings). At each follow-up point, patients will continue to indicate the elements of their ongoing treatment. This assessment will enable us to determine the extent to which patients follow through with their discharge plan as well as to track changes in treatment over time.

Treatment Adherence. For each element of posthospital treatment in which patients indicate that they are participating, they will be asked to rate the extent to which they are following the prescribed regimen (e.g., taking medication or attending scheduled appointments or meetings) on a scale from 0% to 100% in 10% increments (see Appendix).

Perception of Care (PoC). After discharge, we will continue to ask patients about their perceptions of the quality of their current care, using the outpatient version of the Perception of Care measure (Eisen & Dickey, 2008). Patients who are in residential treatment will continue to complete the inpatient version.

Integrating Assessments into Inpatient Clinical Care

This project is a reflection of our long-standing interest in integrating systematic assessment into routine clinical care (Allen, Tarnoff, Murphy, Buskirk, & Coyne, 1983). We made a strategic decision that we would conceptualize the inpatient assessments as treatment evaluation rather than research. Accordingly, our Institutional Review Board (IRB) protocol waived the usual requirement for specific written informed consent for participation, inasmuch as the assessments are part of routine inpatient care, for which patients give written consent at the time of admission. Patients are introduced to the project individually around the time of admission by a project research assistant who explains the procedures and rationale, provides patients with a written summary of the project and the assessment instruments, and then guides them through the computerized assessment process. The assessment generates reports of the results, which are forwarded to the patient's primary clinician by the research assistant to be made available to the treatment team and the patient. At each assessment point, the clinician coordinating the patient's treatment reviews the results with the patient and provides the patient with a copy of the results. This practice is consistent with research indicating that providing feedback to clinicians and to patients can improve treatment outcomes (Lambert, 2005).

One innovative facet of our protocol is particularly noteworthy inasmuch as it bears on patient safety. Our colleagues in our former obsessive-compulsive disorders treatment program, directed by Thröstur Björgvinsson, led the way in the adult hospital programs by developing highly specialized, program-specific assessments and integrating the results into clinical care (Björgvinsson et al., 2008). These colleagues instituted biweekly reassessments and recognized that some suicidal patients might report suicidality in the computerized assessment while not communicating their suicidal ideation or intent directly to staff members. Two of the assessment instruments, the BASIS-24 and the BDI-II, include items pertaining to active suicidal ideation and risk. Following our colleagues' lead, throughout the adult hospital programs we have implemented an automated procedure for reporting high-risk status to the treatment team. Specifically, if a suicide item on either instrument ex-

ceeds threshold, an e-mail is automatically sent to the team, and the intervention guidelines call for a member of the nursing staff to contact the patient to assess his or her status and document the process. To avoid patients' feeling blindsided by this procedure, the research assistant alerts them prior to completing assessments that their treatment team will be notified if they report being at risk—admittedly, a process that could lead patients to conceal their status if they are generally inclined to do so.

Follow-Up Phase

On the basis of the data from the earlier quality assurance process as well as initial findings from this project (see Latini et al., this issue), we are confident that patients generally perceive the quality of their care to be high and experience substantial symptom relief. However, we do not yet know what we most need to know: To what extent do patients follow through with their recommended posthospital treatment plan, and how durable are their gains? Accordingly, obtaining follow-up data is essential. At the time of writing, the follow-up phase has been designed and approved by the IRB and will be implemented as soon as remaining information technology work and associated procedural details have been completed.

The transition from psychiatric inpatient to follow-up care is a notoriously high-risk period—most worrisomely, for suicide (Fawcett et al., 1988; Kan, Ho, Dong, & Dunn, 2007; Morgan & Stanton, 1997). At The Menninger Clinic, as with other hospitals with a national (and international) referral base, completing effective discharge planning and initiating the transition to lower levels of care are exceptionally challenging endeavors. Although many patients are able to return to the care they were receiving prior to admission (e.g., for medication management and psychotherapy), many other patients require changes in care (e.g., a transitional, step-down program or additional treatment modalities and providers). Over the course of their inpatient treatment, patients develop a wellness plan that addresses key problems, triggers, and coping strategies; in addition, toward the end of hospitalization, they work out their

posthospital treatment plan. As noted earlier, extent of adherence to this plan is a key question for the follow-up phase.

Perhaps the greatest single challenge in developing procedures for the follow-up phase relates to the fact that, once a patient has been discharged, we no longer have a clinical relationship with the patient—a situation made more glaring by the fact that former patients are distributed all across the country. Hence, for clinical, ethical, and legal reasons, we are not in a position to provide ongoing counseling or crisis management. Accordingly, we have taken a conservative approach in moving from a treatment-evaluation orientation in the inpatient phase to a research orientation in the follow-up phase. After discharge, we will no longer provide patients with individual feedback about the results of their assessments, and we will not review these assessments with an eye toward intervening in potentially high-risk situations (e.g., indications of suicidal ideation). Thus, for the follow-up phase, patients are required to provide written informed consent to participate in research, with the understanding that, if they are having clinical problems, they must rely on their outpatient clinicians and other available crisis resources. Hence the research staff is available only to assist with technical problems in completing the assessments. Yet, consistent with its availability as a nationwide information resource, The Clinic's admissions department is in a position to provide ongoing consultation regarding treatment resources to former patients (e.g., if they need to locate different providers or facilities).

Although patients may elect to participate in the follow-up assessments by U.S. mail, we anticipate on the basis of surveys we have conducted (using our computerized procedure) that the vast majority will elect to continue participating as they have done while inpatients, namely, completing the assessments on Web-based software. The use of the Internet relates to the dovetailing of the follow-up project with our evolving Web-based alumni program. Results of our surveys of patients' perceptions of care are consistent with years of anecdotal observations attesting to the value patients place on peer relationships in their treatment. Many patients informally find ways of staying connected after discharge, and some patients have organized ad hoc peer support groups. The alumni Web site

will provide access to a peer network, educational resources, and a monitored forum through which patients can interact in addressing questions and topics of general interest. The alumni Web site will interface with the follow-up project in a number of ways. First, patients will be able to update their wellness plan on the alumni Web site. This will give them easy access to their plan, which they can update over time after they have left the hospital. Second, patients who have consented to participate in the follow-up assessments will be able to log in through the alumni Web site (as an alternative to logging in via links embedded in e-mail alerts). Third, although we will not be providing individual feedback of assessment results, we anticipate using the results of the follow-up phases to educate patients about factors that relate to treatment adherence and long-term outcomes.

The theme of the alumni program is “staying connected” and, in conjunction with the follow-up assessments, the program will enable patients to maintain an ongoing relationship with each other and with the Clinic. Although patients will not be receiving scored results from their assessments, by completing the measures, they will be engaged in a self-monitoring process with regard to their symptoms, their health and well-being, and their adherence to their treatment plan. It is our hope that maintaining a relationship with other alumni and with the Clinic will be an important factor in encouraging patients to continue their participation in the follow-up phase. Other longitudinal outcomes studies have relied on patient loyalty to the research project to maintain high participation rates without financial incentives over substantially longer periods of time (Cooperberg et al., 2004).

The Role of Information Technology

Information technology (IT) is playing an increasingly central role in healthcare and has a potentially crucial role in improving quality (Porter & Teisberg, 2006). The adult outcomes and follow-up project has required a thoroughgoing interdepartmental collaboration between the research and IT departments since its inception. As already indicated, to facilitate data management as well as to pave the way for follow-up assessment using the Internet, we elected to

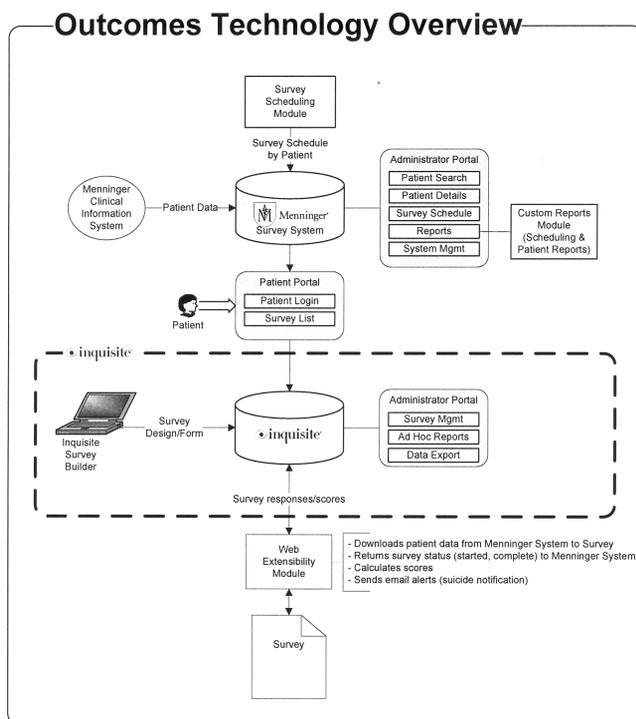


Figure 1. Technology overview

use Web-based software at the outset. The IT department played the central role in selecting the Web-based software on the basis of three fundamental requirements: the software must be highly user-friendly so as to be easily used by patients; it must be compatible with a wide range of psychological assessments, with the ability for researchers to build and deploy new assessments quickly; and it must be compatible with the institution's existing IT infrastructure and technologies. Developing the IT infrastructure (see Figure 1) has been a major effort; this includes scheduling of assessments, formatting printable reports of individual patients' results, implementing security that maintains patient confidentiality, and maintaining a database with the capability of exporting data in a format that lends itself to importing into widely used statistical packages. Yet the expertise of the IT department has been invaluable beyond

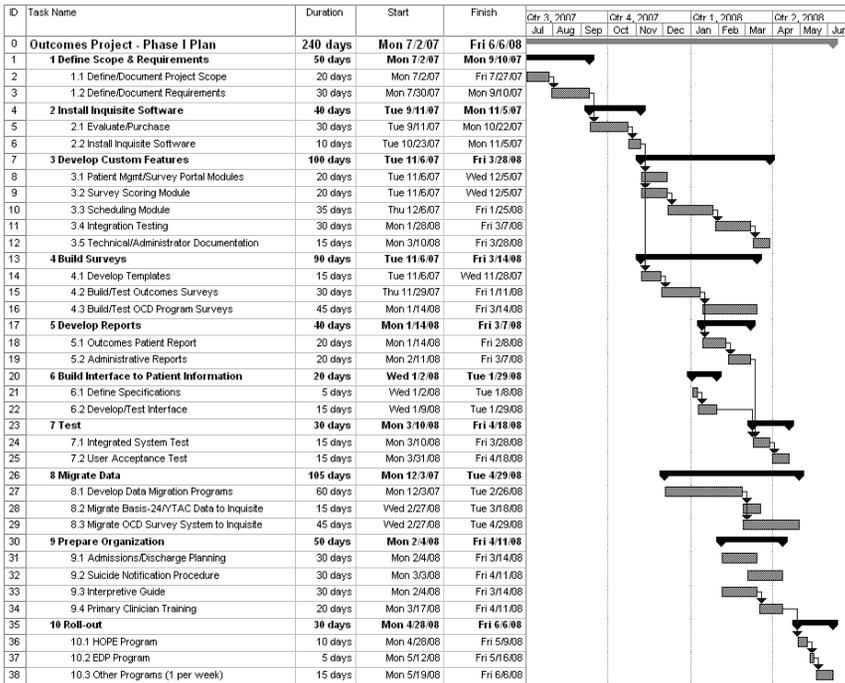


Figure 2. Outcomes Phase I project plan

the provision of infrastructure in organizing and overseeing innumerable aspects of project development and project management (see Figure 2) and in analyzing the follow-up process (see Figure 3). Hence, from the project’s inception, the IT department has been a co-leader with the research department.

The IT department also played a central role in the development of two substantial projects linked to the outcomes and follow-up project: the alumni Web site (described earlier) and a centralized referral database. As already noted, the task of identifying treatment resources for discharging patients on a nationwide basis is a daunting challenge. Information about potential referrals had been scattered around the institution (e.g., the admissions office, marketing department, development office, alumni database, and hospital programs’ and individual clinicians’ files). Clinicians typically resorted to sending out widely distributed e-mails querying their colleagues about treatment facilities or individual providers for particular clinical problems in specific geographical locations. The

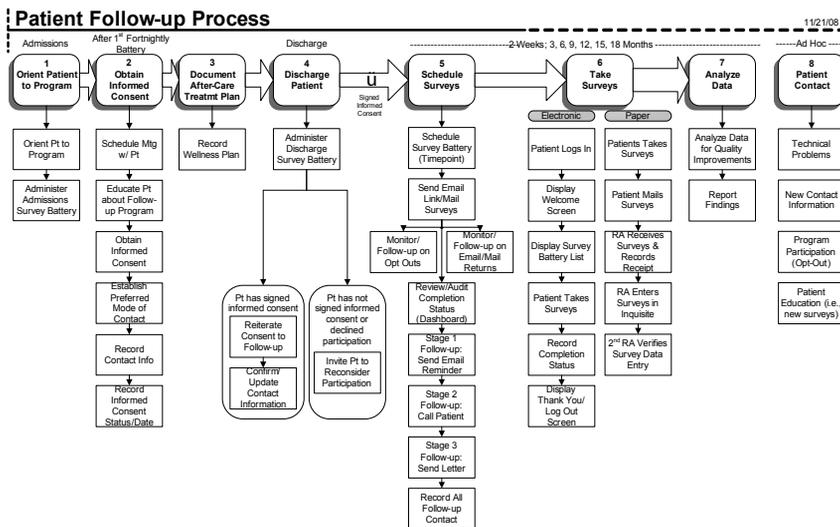


Figure 3. Follow-up process

need for a centralized, easily searchable database to facilitate discharge planning became obvious. Developing the search capacity for this centralized database required that we develop a taxonomy of terms to characterize the elements of postdischarge treatment, a taxonomy that was devised from interdisciplinary collaboration with clinicians. This taxonomy serves as a common language that clinicians and patients can use to characterize posthospital treatments; it also can be used by clinicians and others throughout the organization to search the database for treatment facilities and individual providers. The database will lend itself to refinement and updating over time, as new resources (or changes to resources) are identified by clinicians in the course of their routine discharge planning efforts. Moreover, the Web-based software used for patient assessments also will be used to survey clinicians and facilities across the country regarding their practice, and the results of such surveys can be used to enhance the database over time.

Treatment Evaluation and Research Questions

As we have emphasized, the driving force behind this project has been improving clinical care; in this regard, the most immediate

benefit has been the capacity to provide routine standardized assessments of individual patients' problems and progress to the treatment teams and to the patient. Preliminary analyses of inpatient assessments have enabled us to provide local norms on both a hospital-wide and treatment-program-specific basis, and these norms can be employed to enhance the interpretation of individual patients' results. As data from the project accumulate, these norms can be updated and refined. In addition, the referral database project has been designed to enhance discharge planning; the alumni project will provide patients with a mechanism to continue updating their wellness plans; and the follow-up project will allow patients to monitor their functioning. Finally, with the availability of aggregate data, the project has the potential to provide patients and family members with useful education regarding long-range outcomes.

In addition, we have developed this project as a platform for research, and one that can be expanded over time (see Future Directions section). A wide range of treatment evaluation and research questions can be addressed with the inpatient data, as indicated in Table 2 (see Latini et al., this issue, for initial findings related to some of these questions). As listed in Table 2, our most pressing immediate questions for the follow-up phase are descriptive, namely, the extent to which patients follow through with their discharge plans and the extent to which the levels of symptom remission achieved in inpatient treatment endure over time. Moreover, we are eager to identify predictors of treatment adherence and durability of change insofar as such predictors could alert clinicians to patients at risk for poor long-term outcomes, and to modify treatment interventions (e.g., in relation to discharge planning) accordingly. In addition, findings regarding what factors help and hinder patients after discharge would be helpful in patient and family education, for example, through the vehicle of the patient alumni Web site.

Barriers and Challenges

The strategy of incorporating standardized measures into routine clinical care is not new and, in principle, the procedures as we have articulated them appear straightforward. In practice, however,

Table 2. Treatment evaluation and research questions

Condition on Admission	
1.	What are the typical admissions profiles on psychometric measures (BDI-II, BASIS-24, IIP-32)?
2.	Are there subtypes of personality disturbance evident at admission (e.g., identified by cluster analyses of the IIP-32)?
3.	What are the typical admissions profiles on history variables (e.g., trauma, legal problems, substance abuse, past treatment utilization, treatment adherence)?
4.	Are there differences among treatment programs in admissions profiles?
Improvement from Admission to Discharge	
1.	What is the extent of improvement on psychometric measures (BDI, BASIS)?
2.	Are there program differences in extent of improvement?
3.	Are there patient characteristics assessed at admission that predict extent of improvement (e.g., from history variables such as trauma history, legal problems, substance abuse, past treatment utilization, treatment adherence; from personality disturbance assessed by the IIP)?
Treatment Process	
1.	Are there differences among professional disciplines and treatment roles in the quality of patients' working relationships with staff members?
2.	Are there program differences in quality of working relationships or extent of treatment engagement?
3.	Do working relationships and treatment engagement correlate with improvement?
4.	Do history variables and personality disturbance assessed at admission predict quality of working relationships and treatment engagement?
Trajectory of Change	
1.	What is the typical rate of change on a key marker (e.g., BDI) across weeks of treatment?
2.	Are there different patterns of change evident in subgroups of patients (e.g., rapid improvement, gradual improvement, little improvement) and are there admissions variables that relate to pattern of improvement?
3.	Are there varying rates of change across different variables (e.g., working relationships, depression, relationship problems)?
Premature Discharges	
1.	Does length of stay relate to extent of improvement?
2.	Do admissions variables (e.g., trauma, legal problems, substance abuse, stopping treatment against advice, personality disturbance) predict early discharge (i.e., leaving before 2 weeks, leaving before 4 weeks)?
3.	Is early discharge associated with less improvement?
4.	Do patients who complete the admissions but not discharge assessments differ significantly on admissions variables, that is, are the completers a biased sample?
Follow-up Phase	
1.	To what extent do patients follow through with their posthospital treatment plans and adhere to treatment?
2.	To what extent and over what period of time are improvements maintained after discharge?
3.	Does treatment adherence relate to enduring improvement?
4.	Are patients more likely to adhere to some types of plans (e.g., intensive outpatient or residential treatment) than others (e.g., standard outpatient treatment)?
5.	Are some domains of symptom improvement more durable than others?
6.	Do individual differences among patients assessed in the inpatient phase predict treatment adherence or durability of change? Such individual differences might include history variables (e.g., trauma exposure, legal problems), symptom and problem profiles (e.g., substance abuse, personality disturbance, attachment insecurity), change variables (e.g., extent of symptom improvement), and treatment process variables (e.g., treatment engagement and working alliances).

implementing this project has faced daunting challenges. Most broadly, we are aspiring to promote a culture shift, which is part and parcel of a broader transition to evidence-based practice (see Mahoney, this issue). This shift requires ongoing adaptation on the part of clinicians. The treatment model in recent years has used social workers as well as psychologists in the primary clinician role, and psychologists are generally more accustomed to using quantitative data in clinical assessment. Yet, regardless of professional discipline, primary clinicians have varying levels of familiarity and comfort with the assessment instruments. Moreover, there are substantial individual differences among clinicians in attitudes toward quantitative assessment data; these individual differences relate to some extent to theoretical orientation (e.g., those in the cognitive-behavioral tradition are often more accustomed to using quantitative data as compared with those in the psychodynamic tradition). The Clinic is currently in the process of moving to a more discipline-specific treatment model in which psychologists will assume primary responsibility for interpreting outcomes reports, which can be construed as the initial step in the psychological assessment process.

Educating clinicians about clinical use of the assessment findings is an ongoing process. Clinicians have provided with information about the assessment instruments, including normative data. In addition, at the beginning of the project, the senior author reviewed results of each admission assessment and provided a brief interpretation of each patient's results to the clinicians to orient them to the process. This assessment constitutes a very brief psychological "screening" rather than anything remotely approaching a definitive diagnostic evaluation; hence clinicians are encouraged to use the assessment reports as a springboard for a discussion of patients' problems and progress, inviting a patient to reflect on the match or mismatch between the quantitative results and the patients' experience as well as to compare and contrast the patient's reports with the clinician's perceptions. Hence we view the assessment as one among myriad occasions to promote a "mentalizing stance" in the treatment process (Allen, Fonagy, & Bateman, 2008), that is, to promote an inquisitive, curious, and reflective attitude toward individual and relationship problems.

The logistic challenges associated with the implementation of the project have been considerable. As already noted, clinicians vary in their familiarity with interpreting and using standardized assessments as well as their attitudes toward the value of such assessments. Of course, this tension between willingness to rely on psychometric data versus clinical judgment is long-standing (Meehl, 1954). In addition, notwithstanding the efficiency of this outcomes assessment process in identifying problems and tracking progress objectively, reviewing the results and discussing them with patients can be experienced as “one more thing” added to the long list of tasks clinicians must accomplish. Hence there is an inevitable tradeoff between effort and time investment, on the one hand, and perceived utility, on the other. This tradeoff is the main reason for our having adopted a minimalist approach to the assessment. This minimalist approach, however, inherently limits the information that can be gleaned from the assessment. Moreover, the utility depends partly on the clinician. As with any clinical endeavor—including the use of psychological test findings—experience is a great teacher; familiarity with the instruments and typical results as well as experience in interpreting the findings to patients increases skill in using the assessments. Moreover, now that we have collected initial data (see Latini et al., this issue), we can begin using local norms in relation to which individual patients’ scores can be interpreted, sensitizing clinicians to patients’ distinguishing characteristics relative to the norm in the hospital or particular treatment program. Now that we have had more extensive clinical experience and have acquired more substantial normative data, we have developed a “Clinicians’ Guide to Interpreting Outcomes Assessments.”

We described our suicide notification procedures earlier, alluding to the fact that the value of these procedures depends on the patient’s willingness to report suicidality. The validity also depends on the sensitivity and comprehensiveness of the assessment, and our current assessment is limited to two self-report items (one each from the BDI-II and BASIS-24). Of course, this assessment is merely supplementary to extensive clinical history and ongoing reassessment on a continual basis throughout treatment. In effect, we are providing patients with yet another opportunity to inform us about

suicidality through the medium of the computer; as noted earlier, some patients may be more open in responding on a computer. Yet we are aware that a range of well-researched procedures have been developed for assessing suicide, and we are in the process of implementing a more extensive, suicide-specific assessment and treatment protocol for high-risk patients (see Ellis, this issue). Of course, refining the assessment involves the tradeoff just discussed in requiring a greater investment of time and effort—one that seems easily justifiable in this instance, given the potential risk.

Suicide assessment raises a more general point about our outcomes project, namely, the obvious limitations in validity of self-completed, multiple-choice tests associated with respondents' lack of self-awareness, minimization or denial, and unwillingness to disclose problems. This limitation in validity underscores that the assessment is merely one facet of a complex, multidisciplinary evaluation. Although we are employing a number of standardized instruments with established validity, their clinical utility depends on patients' insight into their problems as well as their willingness to acknowledge their problems through this medium to their treatment team. We have observed, for example, that a small but consistent minority of patients obtains scores on symptom measures that are in the normal range, notwithstanding the fact that the patients have been admitted to a psychiatric hospital. This discrepancy then becomes a discussion point for the patient and clinician. In addition, although they may be aware of and report psychiatric symptoms, patients are not necessarily aware of personality and relationship problems, which limits the validity of our efforts to assess personality disturbance (i.e., with the IIP, which depends on self-awareness).

In addition, the logistics of engaging patients in the assessment are challenging, although employing dedicated research assistants has greatly enhanced the process. We have been relatively successful at engaging patients in the process at the time of admission (at this time of reporting, 93% of patients have participated at admission). Less than full patient participation at admission reflects the fact that, as with any assessment, patients are free to decline, although relatively few do so at admission. Some patients, however, are too impaired (e.g., agitated or cognitively impaired) to partici-

pate at admission. To facilitate participation at the biweekly assessment points, we have scheduled an hour-long group assessment as a routine part of each treatment program's weekly schedule (such that roughly half the patients participate in any given week). Yet patients at times have schedule conflicts or miss the group for other reasons, so that they must be assessed individually, limiting the extent of patient participation. Our greatest challenge, however, has been assessing patients at discharge, especially when the timing of the discharge is relatively sudden (e.g., patients decide to leave treatment abruptly, or their specific plans change abruptly); in such instances, it may not be possible logistically to meet with the patient (e.g., if the discharge occurs on evenings or weekends when research assistants are not available) or the patient might be unwilling to participate. We consider it critical to obtain as full participation at discharge as possible, given the potential bias in findings (e.g., those patients who leave relatively abruptly or refuse to participate could be persistently impaired, have treatment-resistant illnesses, or have negative attitudes toward their treatment). Hence we actively track participation rates on a weekly basis and engage in problem solving to maximize participation. To date, our overall level of participation at discharge is about 70%, although this rate varies across time points (e.g., at times being in the 80%-90% range).

Future Directions

Although implementing this project has required a major institution-wide effort, the initial iteration of the assessment protocol has been deliberately brief to facilitate its integration into routine clinical practice. The evaluation is relatively generic in assessing symptoms and personality problems that are likely to pertain to a wide range of patients. But we have developed a platform designed to incorporate additional measures that will enhance and refine the assessment process. Even if we were to continue with brief self-report instruments, more specialized screening instruments could be added (e.g., for anxiety disorders, addictions, eating disorders, trauma-related problems, suicide risk and other self-injurious behaviors). Our assessment of personality disturbance is particu-

larly limited, especially in light of the prominence of personality disorders in our patient population and their potential contribution to treatment resistance and limited improvement in clinical syndromes (Target, 1998). Plainly, far more comprehensive measures of personality disturbance exist, including such widely used instruments as the Minnesota Multiphasic Personality Inventory (MMPI; Butcher et al., 2001); Millon Clinical Multiaxial Inventory-III (MCMI; Millon, 1994), and Personality Assessment Inventory (PAI; Morey, 2003), some of which are used selectively in our current practice of psychological testing. Yet the outcomes battery might include, for example, multidimensional research instruments such as the OMNI Personality Inventory (Loranger, 2006) or the Schedule for Nonadaptive and Adaptive Personality (SNAP; Harlan & Clark, 1999; Melley, Oltmanns, & Turnkeimer, 2002). Furthermore, the project was designed to provide a hospital-wide assessment, and program-specific assessments can be developed and added as program clinicians deem desirable. As noted earlier, this shift from a brief, generic assessment that lends itself to relatively easy interpretation to a more sophisticated psychological assessment will be facilitated by our current institutional transition to a discipline-specific model in which psychologists will incorporate the interpretation of outcomes measures into their broader diagnostic psychological assessments.

The routine outcomes and follow-up assessments also can serve as a platform for innumerable potential research projects that investigate factors potentially affecting patient safety (Borckardt et al., 2007; Frueh et al., 2005) and treatment effectiveness. A crucial enhancement of this platform will be the addition of structured diagnostic interviews such as the Structured Clinical Interview for DSM-IV Disorders (First, Gibbon, Spitzer, Williams, & Benjamin, 1997; First, Spitzer, Gibbon, & Williams, 1997). Like the outcomes assessments, such structured interviews not only would set the stage for research by providing valid and reliable psychiatric diagnoses but also would contribute to clinical practice in providing a comprehensive and standardized evaluation to be integrated with routine clinical diagnosis. Moreover, patient self-report measures could be supplemented with clinician ratings (e.g., of symptoms, problems, treatment relationships, or treatment engagement) as

well as assessments of family members or other relevant collateral reports.

Such a platform would set the stage for truly ambitious studies of putative mechanisms of change that, for example, could include more refined assessments of attachment security, therapeutic alliance, self-efficacy, and mentalizing capacity. In a recent review of 61 published psychotherapy studies, Johansson and Høglend (2007) concluded that the processes and mechanisms underlying therapeutic change remain largely unknown. The longitudinal nature of the data we are collecting, combined with measures of putative mechanisms of change, might allow us to demonstrate change in mediators *before* change in outcome variables, thereby suggesting causality. Such information is crucial for developing a better understanding of the reasons that certain interventions are more effective for some patients than others; yet such an investigation would necessarily rely on the careful consideration of additional measures to adequately probe mechanisms of change. The inclusion of such measures should be guided by theory and should attempt to replicate previous studies. In addition, sophisticated statistical approaches to the analyses of mediational models and longitudinal data should be applied.

Furthermore, in time, the repeated-measures design that we use in this project will allow for valuable analyses of the developmental trajectories of disorders across the lifespan. Currently, few such studies exist; yet those that have been published have profoundly changed the way we view psychiatric disorder. For example, data from the Collaborative Longitudinal Personality Disorders Study (Gunderson et al., 2000; Skodol et al., 2005) have challenged many of the myths surrounding the stability of personality disorders in adulthood (see also Zanarini, Frankenburg, Hennen, & Silk, 2003). Our design will enable the empirical investigation of issues that help predict the course and outcome of severe mental illness in terms of heterotypic continuity as well as longitudinal comorbidity. Here, the application of modern latent trait growth modeling approaches (Muthén, 1999) will be of great help if a sufficiently large sample size can be developed over time.

Finally, a solid foundation in diagnostic and outcomes assessment could serve neurobiological studies, including genetic markers and neuroimaging studies. For example, we are in the early

stages of considering how to collect blood and saliva samples from all patients for the purposes of genetic phenotyping. Such data, when paired with the other baseline and longitudinal data described throughout this article, would provide an opportunity to advance our understanding of major psychiatric illnesses; develop and pilot new diagnostic models for *DSM-V*; unlock important gene-by-environment and brain-structure secrets related to individual personality differences and psychiatric illness; and ultimately enhance effective prevention and treatment of major psychiatric illnesses. Such data may also soon be of quite practical importance in the mental health field for personalizing choices of medication and psychotherapeutic approaches based on genetic phenotype.

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Appendix

Personal Information

Trauma History

Please review the list of potentially traumatic events listed below. Please check any that you have experienced.

- Witnessing someone being killed, maimed, or seriously injured
- Being in an accident that was life-threatening or resulted in serious injury
- Being in a natural disaster (e.g., fire, flood, tornado, earthquake) that was life-threatening or resulted in serious injury
- Being physically threatened, assaulted, attacked, or abused
- Being sexually assaulted (rape or attempted rape)
- Being sexually molested
- Being in military combat or a war zone
- Being terrorized, tormented, stalked, or humiliated by someone repeatedly and intentionally
- Being physically tortured by someone
- Accidentally causing serious injury or death to another person

Legal Problems

Have you committed a felony, such as aggravated assault, arson, or burglary?

{Choose one}

- Yes
- No

If Yes, within the past 5 years?

{Choose one}

- Yes
- No

Have you committed a misdemeanor (other than a minor traffic violation), such as petty theft or disorderly conduct?

{Choose one}

Yes

No

If Yes, within the last 5 years?

{Choose one}

Yes

No

Substance Use

Please check all substances that you have previously tried (Note: Only check prescription medication if you took more than prescribed):

{Choose all that apply}

Anti-anxiety medication (Xanax, Klonopin, benzodiazepines)

Sedatives

Cannabis (marijuana, hash)

Amphetamines (speed, crystal meth)

Opioids/Painkillers (heroin, morphine, codeine, Percodan)

Cocaine

Hallucinogens (LSD, peyote, mushrooms, ecstasy, MDMA)

Ketamine ("Special K")

Steroids

Inhalants

Within the last 6 months, have you used substances like alcohol, marijuana, cocaine, or prescription medications to the extent that it caused problems in your life (e.g., conflict with friends/family, decreased performance at work, use in situations that may have been risky)?

{Choose one}

Yes

No

Extent of Prior Treatment

Over the course of your life, how much psychotherapy (talk therapy) with a mental health professional have you had?

{Choose one}

None

Less than 3 months

3 to 6 months

6 to 12 months

1 to 2 years

More than 2 years

How many different therapists have you seen?

How many different psychiatrists or health care providers have you seen (for medication) for a mental disorder?

How many times have you been admitted for acute/crisis psychiatric hospital care (i.e., 1-5 days)?

How many times have you been admitted for extended psychiatric hospital treatment (i.e., more than 5 days)?

Have you stopped medication against or without your doctor's advice?

Yes

No

Have you stopped therapy against or without your doctor's advice?

Yes

No

Health, Social Support, and Stress

- Over the past month did you exercise on a regular basis? (yes/no)
 Over the past month did you frequently have difficulty sleeping at night? (yes/no)
 Do you have any of the following chronic health problems? (check all that apply)
 __Diabetes
 __Heart disease or hypertension or high blood pressure
 __Respiratory or pulmonary disorders, including asthma
 __Gastrointestinal disorder or chronic stomach distress
 Approximately how tall are you? ____ft ____inches
 Approximately how much do you weigh? _____lbs
 Do you believe you have sufficient access to medical care to see a physician if you are sick or injured? (yes/no)
 In the past 3 months have you experienced a major personal injury or illness? (yes/no)
 Over the past month did you usually wear your seat belt when you were traveling in a car, truck, or other moving motor vehicle? (yes/no)
 Do you have someone to love you and make you feel wanted? (yes/no)
 Do you have someone to help you if you were confined to bed? (yes/no)
 Do you have someone to give you good advice in a crisis? (yes/no)
 The following questions are about potentially stressful or traumatic experiences you may have had in the past 3 months.
 In the past 3 months have you been divorced or experienced a marital separation or separation from a romantic partner you had lived with? (yes/no)
 In the past 3 months have you experienced the death of a family member? (yes/no; if yes, who: __spouse __parent __sibling __child __other)
 In the past 3 months have you experienced significant financial problems or hardships? (yes/no)
 In the past 3 months have you been arrested? (yes/no)
 In the past 3 months have you been fired or terminated from a job? (yes/no)

Your Treatment and Care

How satisfied are you with how well you are working together with each of the following?

	Very satisfied	Somewhat satisfied	Neutral	Somewhat dissatisfied	Very dissatisfied
primary clinician					
primary nurse					
psychiatrist					
rehabilitation specialist					
individual therapist					
addictions counselor					

How true or false is the following statement regarding the family work?

	Definitely true	Mostly true	Don't know	Mostly false	Definitely false
My team and my family are working well together					

Integrating assessment and research

How true or false are the following statements regarding your participation in treatment?

	Definitely true	Mostly true	Don't know	Mostly false	Definitely false
I talk openly about my problems					
I work hard to achieve my goals					
I am making good progress					
I am feeling stuck					

Elements of Posthospital Treatment/Treatment Adherence

Elements

[Prior to Discharge] Please indicate all the types of treatment you plan to engage in after discharge from the hospital. Check all that apply.

[Postdischarge] Please indicate all the types of treatment in which you have been engaged in the past 2 weeks. Check all that apply.

- medication (for mental health problems)
- individual psychotherapy
- group psychotherapy
- couples, marital, or family therapy
- intensive outpatient program
- partial hospital or day treatment program
- residential or transitional living program
- 12-step program
- other (please specify)

Treatment Adherence

1. Over the past 2 weeks, what percentage of the time did you take your medication as prescribed?
0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%
2. Over the past 2 weeks, what percentage of your scheduled appointments for medication management have you attended?
0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%
3. Over the past 2 weeks, what percentage of your scheduled appointments for individual psychotherapy have you attended?
0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%
4. Over the past 2 weeks, what percentage of your scheduled appointments for group psychotherapy have you attended?
0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%
5. Over the past 2 weeks, what percentage of your scheduled appointments for family, couples, or marital therapy have you attended?
0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%
6. Over the past 2 weeks, what percentage of the scheduled meetings in the intensive outpatient program have you attended?
0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%
7. Over the past 2 weeks, what percentage of the scheduled meetings in the partial hospital or day treatment program have you attended?
0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%
8. Over the past 2 weeks, what percentage of the scheduled meetings in the transitional living program have you attended?
0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%
9. Over the past 2 weeks, considering what would be the ideal number of 12-step meetings and meetings with your sponsor, what percent have you been attending?
0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%
10. Considering your treatment as a whole, over the past two weeks, what percentage of the time have you been following it?
0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%