Case Management: A New Approach

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ABSTRACT

The high prevalence of mental illness has led to a pressing public health need in the United States that is compounded by a lack of access to adequate mental health care. Case management has helped to bridge the gap between need and access to care. Although there is evidence to support case management’s effectiveness, the field lacks procedural rigor. By adopting key tenets of the Chronic Care Model, including the systematic identification of symptomatic and functional areas of need, a consistent intervention linking the assessment to intervention targets, and outcome tracking, case management has the potential to emerge as an effective and scalable intervention. “Mindoula.com,” a multi-technology platform case management solution developed by Mindoula Health, Inc., addresses the shortcomings of traditional case management by utilizing data to identify intervention targets and to track outcomes by harnessing the power of technology to increase the cost-efficiency of the services provided. [Psychiatr Ann. 2015;45(3):134-138.]
The prevalence of mental illness represents a pressing public health issue in the United States. At the time of the most recent national survey, 43.7 million American adults reported experiencing mental illness. Of those, 9.6 million reported living with a serious mental illness (SMI)—a designation that includes conditions such as schizophrenia, major depressive disorder, and bipolar disorder. People with SMI often need support beyond the scope provided by psychotropic medications and psychotherapy, including access to vocational services, social skills training, housing stability, and transportation.

There is also a widespread shortage of specialty mental health care in the US, as recent estimates suggest that up to 96% of counties have a shortage of mental health professionals. Partially, as a result of this shortage, only 41% of those with any mental illness or 62.9% of those with SMI had received mental health services in the past year. A recent study suggested that, to fill the gap between need for services and supply of mental health professionals, 54,462 prescribing and 68,581 nonprescribing professionals would be needed. In addition, estimates suggest that only 55% of psychiatrists in the US accept private insurance in their practices, and only 43% accept Medicaid, both of which are significantly lower than any other medical specialty.

Despite the dearth of mental health services available, a significant amount of money is spent each year in this market, with estimates suggesting that the US government alone spends more than $150 billion dollars annually. Data from nationally representative studies indicate that 4 of 5 people in the US suffering from mental illness do not receive effective treatment. Among people in the US with SMI, the proportion receiving effective care drops to 15%. The field is poised for something new; there is a need for novel mental health interventions that are effective, cost-efficient, and scalable to reach the millions of individuals with mental illness who do not have access to adequate care. In the past, one way in which this divide between the need for services and the availability of specialty mental health care has been bridged is through case management. This article reviews the literature surrounding the current state of case management in mental health care and describes a groundbreaking approach to case management that harnesses the power of technology to address this previously intractable problem.

**WHAT IS CASE MANAGEMENT?**

In the last half-century, case management has gradually been recognized and incorporated as a way to deal with shortcomings of community mental health care. The Case Management Society of America defines case management as “a collaborative process of assessment, planning, facilitation, care coordination, evaluation, and advocacy for options and services to meet an individual’s and family’s comprehensive health needs through communication and available resources to promote quality, cost-effective outcomes.” Although these general responsibilities represent much of what case managers do for their clients, the day-to-day responsibilities of a case manager can vary widely as a function of specific client needs. As other research has noted, the term “case management” can be a misnomer, as the day-to-day responsibilities of professionals with this title can go far beyond traditional views.

**EVIDENCE FOR CASE MANAGEMENT IN PSYCHIATRIC ILLNESS**

Although case management has been applied to the spectrum of mental illness, the majority of the evidence regarding its effectiveness comes from research with people with SMI.

For populations with SMI, a number of different models of case management exist. These models differ on the basis of several factors, including whether the services are delivered by individual case managers or by a team, as well as the degree to which case managers provide clinical services themselves versus serving as a conduit to other services. Much of the research on case management in SMI has focused on the impact of Assertive Community Treatment (ACT), likely because it is a structured, replicable intervention. ACT is an outreach model that incorporates team members from several disciplines, including two or more case managers, a psychiatrist, and a nurse. As such, ACT represents a complete system of mental health care for a client. The success of ACT is largely due to the careful care coordination that occurs within the ACT team as it shares information, communicates regularly, and agrees on treatment goals. ACT was developed to meet the needs of the most severely mentally ill population that is served by the public sector and is often only available within public sector programs (e.g., community mental health centers, Veterans Affairs Medical Centers). Although effective in addressing the needs of this group of clients, it does not address the needs of the full spectrum of clients with SMI who vary in terms of the level of symptoms, functional impairment, and availability of economic resources.

Researchers have investigated the effectiveness of other case management...
models in improving outcomes for clients with SMI.\textsuperscript{10,13-16} Outcomes that have most frequently been evaluated include, but are not limited to, symptom reduction, number and proportion of clients admitted to the hospital, length of hospital stay, contact with mental health services, and social functioning. A review by Ziguras and Stuart\textsuperscript{14} found non-ACT forms of case management significantly improved social functioning, client and family satisfaction, and quality of life. The Cochrane Schizophrenia Group also investigated intensive case management, and found that it is effective in reducing hospitalization,\textsuperscript{17} increasing retention of care, and improving social functioning, particularly among high service users with SMI.\textsuperscript{18,19}

Although research has initially shown case management to have moderate positive effects on client outcomes in SMI, the mechanism by which these effects occur is poorly understood. This is, in large part, because the case management programs that have been investigated lack procedural rigor at several levels, including the nature of the assessments used and the exact services that are rendered for each client.

A large part of this problem is that many programs have been developed without the intention to incorporate inherently measurable and scalable qualities. In practice, case management programs can stray from the conceptual framework they ascribe, and some programs may incorporate aspects that closely resemble those of other models. As a result of this, as well as the profession’s variegated nature, case management for this population is difficult to operationally define and evaluate, and the research surrounding its efficacy and appropriate implementation reflects this. To understand how to best incorporate case management into care for individuals with commonly presenting mental disorders, controlled studies providing replicable and clear assessment and intervention strategies must be conducted.

**THE CHRONIC CARE MODEL: A STRONG EVIDENCE BASE**

The Chronic Care Model (CCM) is an approach to improving outpatient care that has been adapted for care with various patient populations and has a strong evidence base.\textsuperscript{18} Care programs adapted from CCM have been found to support treatment for chronic physical illnesses, including diabetes management\textsuperscript{19} and the care of patients after myocardial infarction.\textsuperscript{20}

The CCM has also been adapted effectively for use in psychiatric populations, most notably for collaborative care. Collaborative care is a systematic approach to identifying and treating depression and anxiety disorders in primary care settings. Five core principles represent the foundation of collaborative care.\textsuperscript{21} The first of these is increased collaboration and coordination between all health professionals involved in the treatment of a patient. Second, practices ascribing to collaborative care create and maintain a registry of all patients that fit the population being cared for. Third, patients should have an individualized treatment plan with goals and targets that are regularly reviewed and altered as needed. Fourth, all treatments provided to patients must have a solid evidence base to support their use. Finally, providers are accountable and reimbursed in accordance with patient outcomes and quality of care—not just patient volume.

The collaborative care model has been shown to significantly improve both clinical and economic outcomes for patients who are depressed and anxious.\textsuperscript{22,23} Another key component of the collaborative care approach is the consistent use of standardized assessment measures of depression and anxiety,\textsuperscript{22} allowing for enhanced patient monitoring as well as coherent comparison and aggregation of patient outcomes across multiple programs. Applying the concepts and processes involved in collaborative care provides potential solutions to the problems posed by the current state of research in case management. The Mindoula.com initiative, explored below, provides an initial means to repurpose core tenets of collaborative care toward the improved incorporation of case management to the treatment of patients with a broad array of mental disorders.

**A NEW APPROACH TO CASE MANAGEMENT**

Mindoula.com seeks to address the shortcomings of traditional case management and to fill a needed void in

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Figure 1. Mindoula.com’s mobile application for regular client check-ins.
the mental health services market by providing a scalable, data-driven, and cost-efficient case management service. Mindoula.com uses multiple technology-based platforms to facilitate contact between clients and a case management team around the clock. Because the Mindoula.com service is primarily a virtual solution, which leverages experienced and well-trained case managers, psychiatrists, and other health care providers and employs a strong evidence base, the opportunity to scale this intervention for the benefit of behavioral health clients across the country is unprecedented.

The underlying technology of the Mindoula.com service is a proprietary, HIPAA (Health Insurance Portability and Accountability Act) compliant-based technology platform that includes a mobile engagement application. Beyond the typical face-to-face or phone interactions that characterize typical case management, Mindoula.com is able to provide clients with technology-enabled secure communications including regular check-ins integrated into text messaging, requests for calls, and emergency connections as-needed. Clients are also offered access to relevant online content including videos and articles of interest.

All aspects of the Mindoula.com platform are designed to maximize client engagement. This includes the appealing online environment, the multiple avenues of contact, and the client’s ability to select his/her primary “Mindoula.” In this setting, the client completes a set of psychometrically validated measures to identify domains to target with the case management intervention. The intervention is then implemented and modified based on a routine assessment of outcomes. Although the client interacts primarily with their chosen Mindoula, a team of case managers supports the client to ensure access around the clock. The client is regularly contacted by the Mindoula.com mobile application to answer brief check-in questions.

The check-in assesses how the client is doing in the moment and inquires about needs (Figure 1). The mobile application feeds this information to the case management team, allowing the case managers to prioritize working with clients who are struggling and/or have high needs (Figure 2). The case management team also has access to a portal on the Mindoula.com platform that aggregates more detailed information about their clients. This regular check-in and population management functionality of the Mindoula.com platform increases the efficiency with which a case manager can meet the needs of his/her clients.

The Mindoula.com platform also has a portal that is available to other care providers who are part of the client’s treatment team. Thus, psychiatrists, therapists, and primary care providers can log into the website and access information about their shared client and communicate in a HIPPA-compliant environment. In this way, Mindoula.com accounts for what would otherwise be fractured care by allowing providers who work with the same client, but in different settings, to coordinate their care.

**Mindoula.com Assessment**

There is no universally accepted assessment used for clients receiving case management and much of what is used has not been rigorously validated. The Mindoula.com team sought to develop an assessment with strong psychometric properties to assess the client’s symptoms, behaviors, and functioning and to guide needed interventions. The screening instruments were selected based on their robust reliability and validity, their widespread use among mental health clinicians, and/or their clinical utility in planning interventions. These instruments have never been used together in one collective assessment. Domains assessed include: depression, anxiety, trauma exposure, posttraumatic stress disorder, bipolar disorder, psychosis, alcohol use, drug use, suicide, sleep, physical functioning, and social functioning. The assessment proceeds in two phases. The first phase is comprised of a series of screens that are completed by all clients. The second phase includes more in-depth assessments that are customized to the client based on their answers to the first-phase screening items.

**Mindoula.com Intervention**

The Mindoula.com assessment is used to identify symptoms, behaviors, and deficits in functioning that will then serve as targets for the Mindoula.com intervention, which may include specific evidence-based interventions (e.g., behavioral activation), goal setting, and/or
referral to other providers or services. The decisions by which specific interventions, goals, and referrals to initiate in response to a client’s assessment is made based on an algorithm of care. This algorithm, originally developed based on the literature and the substantial clinical experience of the Mindoula.com team, will be refined over time based on the extensive database that will be generated and available for analysis linking initial assessments, interventions delivered, and outcomes, generating a population-based predictive model. Initially, the data generated by Mindoula.com will be used in a formative evaluation to further refine the assessment and intervention. Subsequently, the Mindoula.com service will be primed for a formal outcomes assessment of case management focused on outcomes of interest including symptoms, functioning, resource utilization, and cost.

CONCLUSION

There has been a robust and active response to the need for behavioral health treatments in the technology marketplace, but Mindoula.com’s offering is unique in a number of key ways. Historically, programs have been developed to offer an array of psychotherapy options, to facilitate communication between participating physicians, to provide recovery support posthospitalization with targeted psycho-educational material, or to target biological and psychological symptoms and provide that information to the client’s physician as data points to be addressed in routine care. However, none of these programs are aimed at providing the comprehensive evidence-based case management services that Mindoula.com will provide. Although it is clear that most people with mental disorders do not receive adequate treatment, there is substantial evidence that service delivery models that systematically identify symptomatic and functional areas of need, respond consistently, and track outcomes are essential to fill the gap between need and availability of services. Application of that knowledge can radically shorten the adoption time frame and create an intervention that can successfully meet the needs of the entire spectrum of mental disorders.

REFERENCES