

**Strategies Used
by Managed Behavioral Health Organizations
to Reduce Hospital Care**

**A Literature Review Submitted
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Executive Summary

Psychiatric inpatient care accounts for a large part of the growth of the share of behavioral health medical expenditures in the US. Managed Behavioral Health Organizations (MBHOs) are companies that specialize in applying managed care techniques to provide high quality behavioral health services at low cost. A substantial evidence base shows that MBHOs in the US successfully reduce inpatient hospitalizations.

This paper has reviewed the following strategies that MBHOs use to reduce inpatient care: setting utilization management, effective transition from inpatient to community, maintaining a selective provider network, risk-sharing for providers to discourage inpatient care, and creating special programs for persons at with high risk of hospitalization. These strategies are usually adopted by MBHOs in combination, and they successfully reduce the number of admissions and shorten length of stay. However, adverse side effects of these strategies exist, e.g. disproportional reduction of care on children and persons with severe mental illnesses, and the increasing risk of readmission. The number of studies on adverse side effects of MBHOs strategies is limited, thus when implementing the strategies to control utilization of inpatient care, overly aggressive utilization management should be avoided, especially of children, adolescent, and persons with serious mental illnesses.

Introduction

Psychiatric inpatient care accounts for a large part of the growth of the share of behavioral health medical expenditures in the US[1]. Managed Behavioral Health Organizations (MBHOs) are companies that specialize in applying managed care techniques to mental health and substance use disorders. MBHOs can be independent organizations, part of a health plan or supported by health care providers[2]. They first emerged in the late 1980s with the stated goal of achieving high quality behavioral health services at low cost, and nowadays the majority of the behavioral care in the US is managed through MBHOs[3]. Key strategies for accomplishing this include network development, performance measurement, managing utilization, coordinating care, and negotiating payment rates to reduce care that they perceive as inappropriate, ineffective or unnecessary[2, 4]. A substantial evidence base shows that MBHOs in the US successfully reduce inpatient hospitalizations [5-9]. This paper surveys common strategies MBHOs in the US use to reduce inpatient care and discusses the effects and side-effects of these strategies.

Hospitalization may result from increased severity of psychiatric illness, inefficient previous inpatient care, lack of adherence to recommended outpatient care, or inadequate community resources such as for promoting employ or adequate housing. [10]. Goals for inpatient care reduction are: directing patients towards the appropriate level of care

according to clinical needs; shifting high cost inpatient care to low cost outpatient or other intermediate treatment; and enhancing patient adherence to outpatient treatment and medication regimens to prevent hospitalization. In general, these approaches should in principle work by discouraging admissions or re-admissions, or by shortening stays for admitted patients. To achieve these goals, common strategies used by MBHOs in the US are utilization management, establishing an effective transition from an inpatient facility to a community setting, maintaining a selective provider network, risk-sharing for providers to discourage inpatient care, and creating special programs for persons at high risk of hospitalization. These strategies are closely, related even overlapping, and usually several strategies are employed simultaneously by one MBHO. When investigating the effects of MBHOs on reducing hospitalization, with a few exceptions[5, 11, 12], the majority of the studies have not disentangled the specific role of each strategy[3]. Thus, in this paper, we do not try to isolate the role of specific strategies if there is no underlying empirical support.

Utilization management

The most direct way to reduce hospitalization is utilization management (UM), which substantially reduces utilization of inpatient care[9]. No single definition has been developed that adequately captures the diverse nature of UM[13]. In this review, we adopt the most common definition of UM in the behavioral health field: UM includes prior authorization, concurrent review and case management [14, 15]. Prior authorization involves the approval of services before delivery. Concurrent review focuses on the authorization of additional services and length of stay for established patients. Case management incorporates both prior authorization and concurrent review in more intense, ongoing reviews of care and tends to focus on high users of care. Case management tends to be more proactive than prior authorization and concurrent review. Also, a case manager may assist care recipients in gaining access to needed social, educational and other services, such as housing and transportation.

Most of the reductions in hospital days were not achieved by making inpatient admissions more difficult, but rather by substantially reducing length of stay, which historically have been relatively long [9]. Several studies found the rate of denial of initial services is low. One study found the MBHO in a large commercial insurance company initially approved inpatient psychiatric treatment for nearly all (98.8%) of the patients, however, the same study found only one-third of the days requested (6.9 versus 19.0) were authorized [14]. Almost all patients were approved for the same initial length of stay. More common was action taken to limit length of stay by concurrent review. Compared with other medical conditions, in one study, utilization management was most effective in restricting care for mental health patients, who represented 5.7% of the study population but accounted for

54.7% of the total reduction in requested days [5]. One study estimated that after a fee-for-service Medicaid program made a contract with a MBHO-carve out company, about 65% of the reduction in inpatient expenditures was attributable to utilization management[12].

Effective transition from inpatient to community

Another important strategy to reduce hospitalization is to create an effective transition (follow-up plan, discharge plan) to increase continuity of care after patients are discharged from hospitals. Adequate follow-up is also a critical part of case management for high-risk patients. A follow-up plan decreases the risk of admission and readmission[16].

Researchers have estimated that 40 to 60 percent of inpatients fail to connect with an outpatient care provider after discharge[17]. In practice, MBHOs requested that the patient's inpatient care staff arrange an outpatient follow-up appointment within 1-3 days after discharge. The staff contact the patient by telephone within 24 hours of discharge to verify that an outpatient appointment had been made and to remind the patient to attend. In some MBHOs, staff members reiterated the importance of follow-up treatment, or contacting patients regularly to check up and encourage adherence to follow-up outpatient treatment. For example, one study showed that enhanced discharge planning in a MBHO raised outpatient follow-up attendance to 78 percent from a baseline level of 55 percent [18].

Selective provider network

Another tool that MBHOs use is to selectively contract with providers and hospitals. The selective network can lead to both reduced rates of admission and shorter length of stay. MBHOs restrict the number of providers in a network by selecting providers with preferred characteristics, e.g. a history of less intensive treatment patterns and willingness to negotiate lower prices [19, 20]. For instance, when selecting contracting hospitals, besides choosing hospitals with relatively low per diem costs another possible strategy is to choose hospitals that aggressively treat acute care episodes, thereby reducing inpatient stays[20]. Also, MBHOs profile providers (e.g., tracking the intensity of care given by each provider). This may change provider behavior when there is a credible threat to exclude the provider from future contracts or to direct patients to other providers within its network [11]. Profiling thus provides incentive for providers to restrict the use of high cost treatment, to the extent that the network sets (explicitly or implicitly) a target for the quantity of care in an episode of care. One study found that network incentives account for most of the quantity reduction following introduction of managed behavioral care in a large, employed population[11]. Another study estimated that about 30% of the reduction in inpatient expenditures in a MBHO is attributable to provider selection [12]

The selective network may have unexpected side-effects on inpatient care[21]. One study found when using selective provider networks, MBHOs send frequent inpatient users to different hospitals every time when they are admitted, which disrupts continuity of care. When admitted to a hospital that is unfamiliar with the condition of the patient, these frequent inpatient users require more time to be stabilized and discharged.

Risk sharing to discourage inpatient care

How MBHOs pay providers has effects on the utilization of inpatient care, both the rate of admission and length of stay. Pure capitation is used infrequently for paying providers. More typically, supply-side cost-sharing methods, such as case-rate payment and care-rate withhold, are used whereby providers may not be at full risk for the cost of services, i.e., are exposed to risk beyond a threshold [22]. Under risk sharing, providers are exposed to the risk of losing money if they provide costly treatment; thus they have an incentive to develop creative services to reduce high cost treatment, e.g., partial hospitalization and residential care, which are not covered using fee-for-service payment method [23].

However, the risk-sharing with providers may have side-effects. When providers are paid with risk-sharing or capitation, there is evidence that less frequent outpatient treatment is prescribed to patients[3, 24], which may increase hospitalizations in the long run. Also, risk sharing encourages providers to adopt aggressive utilization management, or deny access to high-cost, seriously ill patients, or shift patients from psychotherapy to drug treatment[3].

Special programs for people with high risk of hospitalization

Individuals with serious and persistent mental disorders account for a large share of psychiatric hospitalizations. The incentives that MBHOs establish encourage providers to develop creative interventions to improve the mental health of covered persons [23]. Many special interventions, which have been shown to reduce psychiatric hospitalizations for this population, can be implemented by MBHOs. Several evidence-based interventions, which are reviewed and assessed by the Agency for Healthcare Research and Quality in the U.S., are briefly introduced in this section[16]. These interventions fall into three categories: transition support services; short-term alternatives to hospitalization; and long-term approaches for reducing psychiatric hospitalization.

Transition support services after discharge are short-term interventions that help patients successfully move from inpatient treatment to outpatient care. Transition support interventions include:

- 1) Aftercare services: These include weekly follow-up calls, home visits, and psychoeducation services for family members of the patient [25, 26] or individualized transitional psychoeducation[27].
- 2) Computerized decision-support software: Such software targets enhancing coordination of inpatient and outpatient services by providing suggestions for receipt of specific services based on certain clinical and psychopathological conditions of patients to meet their individual needs[28].
- 3) Transitional discharge services: This model has two parts: a) peer support for a period of 1 year, during which peer volunteers help patients form friendships, and teach patients skills useful for transition to the community. b) on-going support provided by hospital staff to form a therapeutic relationship with the community care provider. Activities include telephone conversations and meeting for coffee[29].

Short-term alternatives to psychiatric hospitalization aim at treating patients who are not at significant risk of harm to self or others. The three alternatives are:

- 1) Crisis residential care: This is an intermediate level of care between standard outpatient treatment and involuntary psychiatric hospitalization, which is available outside an individual's home to treat psychiatric destabilization but does not require involuntary commitment. It is meant to be less restrictive and less expensive than regular inpatient psychiatric care[30].
- 2) Scheduled intermittent hospitalizations: These are planned short-term psychiatric inpatient admissions for persons with serious mental illness. Every brief admission ranges from 3 to 11 days every 3 months[31, 32].
- 3) Partial hospitalization: This refers to a short-term intensive program, the intensity of which is a step below inpatient hospitalization but more concentrated than traditional outpatient care. Patients are admitted to partial programs when they experience acute psychiatric symptoms but do not require 24-hour care. Individuals in partial hospitalization programs attend structured programming throughout the day, three to five days a week and return home in the evening[33].

Long-term approaches for reducing psychiatric hospitalization generally require a more extensive and ongoing effort to improve and maintain the mental health of persons with serious mental illnesses. The five approaches are:

- 1) Assertive community treatment (ACT): This model is based on a multidisciplinary team composed of social workers, rehabilitation therapists, nurses, and a psychiatrist with a

client-to-staff ratio around 1:10. The ACT teams deliver one-stop, round-the-clock comprehensive community treatment, rehabilitation, and support services, e.g., helping consumers in their homes, at work, and in community settings with medications, housing, finances and everyday problems in living. The advantage of ACT is that it provides almost all the services by the team so that a client does not have to work with multiple providers; patients can be supported through most psychiatric crises without hospitalization, thus providing care in the least restrictive environment[34].

- 2) Involuntary outpatient commitment (OPC): The literature indicates that some individuals may need involuntary treatment to prevent hospitalization because of the high prevalence of anosognosia (i.e., lack of insight as part of the disease symptoms) with severe and persistent mental illness. OPC, which involves input from clinicians and the judicial system, requires individuals to engage in psychiatric treatment in the community for a certain period of time or be faced with returning to the hospital for treatment[35].
- 3) Peer support: Peers (former mental health patients in recovery) provide support and mentorship to current patients. In contrast to other clinicians, peers receive a salary for their services, but do not report to the mental health system[36].
- 4) Psychoeducation for family members: Psychoeducation engages the family members of patients by providing sessions to educate family members on various aspects of disease and management. It helps family members to better understand the needs of patients, and actively involves them in the treatment plan of patients[37].
- 5) Various outpatient and/or supportive services: These interventions address medication education, symptom education, service continuity, social skills, daily living, daily structure, and family issues help patients to gradually improve and maintain mental health, thus reducing use of inpatient care. Effective interventions include (but are not limited to) day treatment, psychiatric rehabilitation, vocational services [38].

Other negative effects of managed behavioral health care

The impact on quality of care due to reduced psychiatric inpatient care in MBHOs is unclear due to the limited number of studies and mixed results of these studies [9, 39]. It appears that MBHOs improve access to care overall, primarily for persons with mild mental illnesses[3]. However, some evidence suggests that a potential negative impact on children and adolescents[40], and persons with serious mental illnesses[3, 9, 41]. Utilization management techniques and reimbursement arrangements may restrict access to higher intensity services, which particularly affect the treatment for persons with serious mental

disorders, largely due to a lack of continuity of care and potential inability to obtain more intensive services such as inpatient or residential treatment [3].

Children are in great need of mental health care. An estimated 1 in 10 children are reported to have a serious emotional disturbance at a given time[42]. In fact, the estimated prevalence rate of serious emotional disturbances in children is higher than the prevalence rate of serious mental illnesses in adults – about 9 percent for children versus about 6 percent for adults. Utilization of inpatient services has generally decreased under managed care for all populations. However, the reduction of in-patient services for children has been the most dramatic due to both increased difficulty of admission and shortened length of stay: children utilizing inpatient care was reduced almost 30-40 percent, as compared to a decrease of 2-6 percent for adults during the same period[40].

Another potential negative effect comes from the reduced length of stay, which is associated with an increased risk of re-hospitalization[16, 23, 43]. Short stays may not permit psychiatric professionals to develop adequate discharge plans, particularly for transitional support. Longer stays allow for additional monitoring of patients, and the opportunity to be stabilized via treatment. The implications of different lengths of stay depend on available community resources after the discharge. For instance, a shorter length of stay can be very effective within a well-developed community mental health system but disastrous if used within a poorly developed one. Prior to the implementation of the Mental Health Parity and Addiction Equity Act in 2008 by the federal government, certain MBHOs, as well as other insurers, set limits on the annual total number of inpatient hospital days irrespective of the patient's diagnosis, which may lead to more premature discharges.

Conclusion

This paper has reviewed the common strategies used by MBHOs in the US to reduce inpatient care: setting utilization management, effective transition from inpatient to community, maintaining a selective provider network, risk-sharing for providers to discourage inpatient care, and creating special programs for persons at with high risk of hospitalization. These strategies are usually adopted by MBHOs in combination, and they successfully reduce the number of admissions and shorten length of stay. However, adverse side effects of these strategies exist, e.g. disproportional reduction of care on children and persons with severe mental illnesses, and the increasing risk of readmission. The number of studies on adverse side effects of MBHOs strategies is limited, thus when implementing the strategies to control utilization of inpatient care, overly aggressive utilization management should be avoided, especially of children, adolescent, and persons with serious mental illnesses.

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