

Implementing Outcomes Management Systems in Mental Health Settings

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Outcomes management has received considerable attention in the literature on mental health services delivery. However, relatively little practical information is available on how to implement an outcomes management system in the mental health care setting. The authors review seven key issues that must be addressed in planning such a system: involving senior organizational leaders in ownership of the project, securing the support of clinicians and patients, selecting personnel to operate the system, choosing outcomes assessment instruments, developing data collection procedures, selecting techniques for data management, and using the data to improve outcomes. Ultimately, an outcomes management system is intended to generate data that can be used to stimulate discussion, to guide clinicians in tailoring treatments, and to identify efficient treatment approaches. (*Psychiatric Services* 48:364-368, 1997)

Outcomes management has recently received considerable attention as a process for improving the quality and effectiveness of health care (1-7). Originally described by Ellwood (8), outcomes management involves the systematic assessment of health outcomes and financial information to improve the delivery of services and quality of care. Outcomes management systems can be used to achieve several organizational objectives such as monitoring processes of care, clinical quality improvement, program accountability, and determination of value.

To illustrate how an outcomes management system has been useful in a particular mental health setting, consider the following example. A Fortune 100 company implemented an outcomes management system in its employee assistance program (EAP), using major depression as a tracer condition. Three assessments were made at baseline when an employee presents with symptoms of depression: a patient self report, an assessment by an EAP counselor, and an assessment by a treatment provider. By comparing these assessments it is possible to identify patterns of care, diagnostic inconsistency, and effective practice patterns. Follow-up assessments administered at four month intervals provide longitudinal information about changes in functioning at work and in social settings, as well as in symptoms of depression. Cost and utilization data are linked with the patient outcomes data to provide critical information for EAP management to evaluate the types of care being provided to employees through their treatment networks and the quality and value of that care.

Although there is growing enthusiasm for this type of process and pressure from various constituency groups to provide patient outcomes data (9), the integration of outcomes assessment into routine mental health care is still in the early stages (10). A relatively extensive literature on outcomes assessment and measurement exists (11), but very little practical information on how to implement an outcomes management system is available.

The authors have implemented several of these systems over the last six years in a variety of settings, including managed care settings, EAPs, and public mental health settings. Through these extensive projects in the field, we have learned that seven critical questions must be confronted at some point during initial implementation of the system. Although this paper cannot provide sufficient detail to enable the reader to implement outcomes management, it will allow the interested administrator, clinical manager, and clinician to understand the scope, magnitude, and essential features of such an undertaking.

Whose outcomes management system is it?

The decision to implement an outcomes management system should reflect a consensus within the organization's top management. Because introduction of such a system is a major undertaking and will affect virtually every clinical aspect of the organization, senior organizational leaders not only need to give their support but should take substantial

ownership of the project. Relevant literature, although scant, suggests that the outcomes management system will have the greatest likelihood of success if it is a project of a senior manager such as the chief clinical officer (12-14).

Although much of the daily administration and promotion of an outcomes management system may be delegated to a mid level manager, the introduction of the system requires significant managerial effort and commitment of resources. Careful selection of implementation techniques and strategies, such as participative versus top down implementation, will improve the chances for success (15).

How do we get staff to buy into it?

In addition to support of management, a successful outcomes management system needs the support of individual clinicians and staff (16,17). Support will be easier to obtain if clinicians and staff are able to see the reciprocal advantages of an outcomes management system to them in their routine work and ongoing professional development (18,19). Understanding that an outcomes management system will provide helpful feedback about their patients' progress, the effect of the care they provide, and the well being of their patients will make it attractive to most clinicians.

A useful first step in this direction is cultivation of opinion leaders within the organization who are interested in outcomes management and can become advocates for the approach. Opinion leaders can serve as role models and as valuable sources of information to others. Educational approaches using speakers, reading materials, and informal discussions may help in this role; they have been shown to have positive effects on clinicians' adherence to practice guidelines (20).

The cooperation of patients is also necessary for the successful implementation of an outcomes management system. Patients' cooperation can be enhanced if clinicians and staff are in favor of the system. Clinicians or administrative staff are typically the first to speak with patients about tracking outcomes. If, in the course of usual care, they enthusiastically discuss the importance of responding to periodic requests for information, patients' responsiveness to and compliance with the system is likely to increase substantially (21).

Two particularly important messages must be conveyed while preparing a setting for introduction of an outcomes management system. First, clinicians and staff must come to understand that outcomes management is not a research project. Rather it is as integral a part of clinical practice as writing progress notes. If the centrality of outcomes management is not made clear, clinicians may expect the effort to be discontinued after a short time and thus not consider it necessary or important for patients to participate or to incorporate outcomes management procedures into their own routine practices.

Second, all individuals involved in the outcomes management system must develop awareness of the need for methodological rigor. For outcomes data to be meaningful and the conclusions drawn from it to be valid, systematic scientific procedures are essential.

Will additional staff need to be hired?

Organizational commitment of human and financial resources is vital to the successful establishment of an outcomes management system (16). Although many advocates of such systems assert that quality improvement efforts will save money in the long term, virtually everyone agrees that, in the short term, they can generate significant costs. The greatest cost is for the personnel required to operate the system. Personnel may include a system manager and a system coordinator, as well as statistical support staff and clerical support staff.

At a minimum, a system manager will be required to ease implementation of the outcomes management system and ensure consistency in engineering the project. The manager has the overall responsibility for the system and should report to the chief clinical officer of the organization. This link to top management helps to ensure that the manager has the organizational influence that will be necessary to carry out the project successfully.

The choice of an outcomes management system manager is a critical one, typically made by the chief clinical officer, for reasons noted above. The system manager must possess strong interpersonal and leadership skills and, ideally, should have significant research experience or understanding. A respected clinician who has interest and skills in the area may be able to fill this role.

In moderate sized to large settings, the system manager is likely to need a project coordinator who can devote the majority of his or her time to the numerous details involved in developing and maintaining the outcomes management system. Although many system tasks can be successfully assigned to administrative personnel who are currently in the organization, these personnel will need support and perhaps additional training to assimilate outcomes management activities into their daily efforts.

If the organization does not have personnel with background in health services research, outsourcing to a consultant should be considered. The consultant should not run the system; having the consultant do so would be like outsourcing all of the organization's financial management. Rather, the consultant should coach and guide in house personnel in establishing the system and assist with review of procedures, data analysis, and data interpretation.

Although some research indicates that in house management of the outcomes management system can have positive effects on quality improvement efforts (22), many organizations, including purchasers of care and payers, are choosing to outsource some of the operations necessary for an outcomes management system, such as data collection and follow-up of clients. By outsourcing some tasks, the organization can evaluate the delivery system, monitor changes in outcomes, make changes in the system, and watch how the system responds without the worry of the day to day data collection.

What outcomes assessment instrument should be used?

The instrument chosen for outcomes assessment will vary depending on several factors, including the size and mission of the organization. In general, however, an efficient way to introduce the outcomes management process is to monitor outcomes for a tracer condition or small set of tracer conditions rather than for all conditions.

The tracer methodology, which is not new to the field of health care quality assessment, has been described by Kessner and associates (23) as follows: "For measuring the functions of a health care system, the tracers needed are discrete, identifiable health problems each shedding light on how particular parts of the system work, not in isolation, but in relation to one another . . . how a physician or team of physicians routinely administers care for common ailments will be an indicator of the general quality of care and the efficacy of the system delivering that care."

The choice of an appropriate tracer condition will vary depending on the particular organizational focus, mission, and goals of the health care setting. These factors have been discussed in more detail elsewhere (24). Briefly, the condition should be one that is common in the setting, one in which clinical change is expected, one for which treatment known to be effective exists, and one for which clinicians in the organization generally agree that information on outcomes would be helpful. Once a tracer condition has been decided on, then adequate assessment tools can be chosen.

Adequate assessment tools have three basic characteristics. They should be easy to use in a clinical setting. They should be comprehensive, that is, they should cover all relevant outcome and treatment domains. Finally, they should have demonstrated reliability and validity. The Major Depression Outcomes Module is one example of this type of measure (25). It was developed specifically to assess the types of care that depressed patients receive, the outcomes of that care, and the patient characteristics that influence either the type or the outcomes of care. Similar outcomes modules have been developed for alcohol dependence, substance abuse, and schizophrenia (26,29).

Another issue to consider is generalizability, that is, the extent to which the information gathered can be compared with data from other settings and populations. One goal of an outcomes management system, as stated by Ellwood (8), is to allow the merging of clinical and outcomes data on a massive scale. To fulfill this goal requires the ability to reproduce results in many settings, which is linked to the reliability of assessment tools used. A complete discussion of these issues is beyond the scope of this paper, but numerous sources of further information are available (11,30).

How should we collect data and handle patient followups?

Each organization must decide whether to monitor all patients with the chosen tracer condition or a probability sample of patients. The decision should be based primarily on consideration of the questions to be answered, how rapidly each of the answers is needed or desired, the size of the population of patients with the tracer condition, and the relative importance given by the organization to the logistic complexities of each approach.

If a sample of patients is to be monitored, the assistance of a statistical or research expert will be necessary to determine an adequate sample size and to ensure that the sample constitutes a representative probability sample rather than a convenience sample. Information from a nonrepresentative sample of patients may be seriously distorted. Decisions based on a distorted image of an organization's effectiveness may lead to unnecessary or detrimental changes in treatment protocols or the organization of services. Although monitoring a population of patients is typically more expensive and time consuming than monitoring a sample, some programs with small caseloads may easily be able to monitor all patients with a given condition. Sampling issues are closely related to tracer conditions because a "trigger" must exist for identifying patients eligible for monitoring as part of the outcomes management process. In other words, what triggers the system? Will a patient's eligibility for follow up in the outcomes management system be based on a

clinician's diagnosis of the tracer condition, results on a screening instrument, an authorization for care, or some other source of information? Simple, rational procedures must be developed to identify patients who are to be included in monitoring, and care must be taken to ensure strict adherence to sampling procedures.

Useful, meaningful data analysis and interpretation require complete and timely follow-up data. Less than a 100 percent follow-up rate of patients initially sampled for the outcomes management system carries the potential for biasing results in unknown ways. Although achieving a 100 percent follow up rate is extremely difficult, certain strategies can be used to encourage patients' cooperation with the follow-up process. They include having the clinician explain the system's importance to the patient's care, minimizing the time burden for the patient, and providing convenient opportunities and mechanisms for the patient to participate (21,31). An 80 to 85 percent follow-up rate has been suggested as the minimum acceptable level (32). For those seriously considering implementation of an outcomes management system, several sources provide a more detailed discussion of sampling, data collection, and methodological issues in outcomes assessment (11, 32-36).

How will the data be managed?

Data entry, analysis, and interpretation are vital aspects of outcomes management. Each of these parts of the process needs to be carefully considered before implementation of the system. Techniques such as case-mix adjustment, risk adjustment for severity of mental illness, and appropriate cost-benefit analyses are necessary for meaningful data interpretation. Only large organizations are likely to have the necessary expertise to handle all of these aspects of an outcomes management system. Outside consultation may either replace or supplement in house expertise. Whether the data is managed in house or by outside consultants, the keys to successful outcomes data management are careful selection of tools, personnel, and procedures, along with the flexibility and sufficient resources to continuously maintain and refine these elements.

Timeliness is also an important consideration. The data entry and analysis need to be rapid if clinicians' enthusiasm is to be stimulated and maintained. When clinicians can see and use the data that the system provides about their patients, they often become strong advocates for the outcomes management system (36). At the same time, attention should be paid to the accuracy of the data recorded, entered, and analyzed. Timeliness should not be achieved at the expense of data quality. Provision should be made for cleaning the data, that is, for reviewing and correcting errors in the data.

How can we use the data to improve outcomes? The final and perhaps most crucial aspect of implementing an outcomes management system is determining how to use the information that has been gathered. Managers, especially clinical directors, will probably be the first group to receive feedback from the new system. They should be cautious in interpreting the data and allow time for a clear and stable picture to emerge. Most important, however, is that feedback be given to clinicians to facilitate improved treatment. Consultation with a health services researcher can prove very useful at this point.

Clinically knowledgeable individuals or teams should be involved in developing hypotheses about the factors behind the changes in outcomes. Clinicians are usually quite pleased to see a systematic, graphic presentation of how their patients are doing and to be able to draw initial inferences about the effects of treatment. Information must be provided in an easy to understand format, similar to that of laboratory reports. Training sessions may be needed initially to help both clinicians and nonclinician managers interpret the data provided in the outcomes reports. Over time, however, discussion of information from the outcomes management system is likely to become part of casual conversation in the clinical setting.

We anticipate that mental health organizations participating in outcomes monitoring will discover substantial variation in their clinical practice. Some treatment approaches may consume substantial resources without contributing to good outcomes (24). Examination of observed variations can provide a rational basis for identifying and correcting problems with quality of care. More broadly, merging the results of outcomes assessment across settings can provide a large enough cohort to identify treatments, procedures, and processes that produce the most favorable outcomes in the routine care of patients. The relative effectiveness of promising treatment modalities and processes may then be formally tested in controlled trials and, when confirmed, incorporated into practice standards and guidelines (37,38).

Conclusions

The ultimate aim of an outcomes management system is to improve clinical performance and patient outcomes. Organizations will differ in the ways in which they use the outcomes data that are available to them. Although outcomes data could be used punitively, an outcomes management system will be more effective in the long run if the data are used to stimulate discussion, to guide clinicians in tailoring patient treatments, and to identify efficient approaches to treatment.

Most aspects of implementing an outcomes management system are straightforward and can be managed by most organizations; however, they do require thought and effort. These systems have great promise for improving the quality of mental health care on an individual, organizational, and national scale.

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