Outcomes Management: Incorporating and Sustaining Processes Critical to Using Outcome Data to Guide Practice Improvement

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Abstract

An outcomes management system (OMS) greatly facilitates an organization or state achieving requirements regarding accountability and use of empirically based interventions. A case example of the authors' experience with a successful and enduring OMS is presented, followed by a review of the literature and a proposed model delineating the key components and benefits of an OMS. Building capacity to measure performance requires embedding utilization of youth-specific, clinically meaningful outcome data into the organization's processes and structures. An OMS measures outcomes associated with services, facilitates implementation of evidence-based practices, informs case decision-making, enables better and more efficient clinical management, and provides aggregated information used to improve services. A case-specific supervisory model based on instantaneously available information, including progress to date, helps maximize consumer outcomes. Continuous quality improvement activities, which are databased and goal-oriented, become a positive change management tool. This paper describes organizational processes that facilitate the development of a highly functional OMS.

Introduction

States and mental health organizations must meet the challenge of three urgent mandates aimed at improving the quality of care delivered to consumers. They include accountability for the effectiveness of services, implementation of evidence-based treatments (EBT) and evidence-informed practices (EIP), and use of real-time computer-based health records. Both the Bush[1,2] and Obama[3-6] administrations have repeatedly spoken to these mandates, yet there is consensus that only a small minority of mental health providers have made substantive progress. The vast majority of youth do not receive evidence-informed treatments;[7,8] the expectation of using performance measures to assess "real-world" consumer outcomes[a] has been largely unfulfilled;[9,10] and the primary use of technology is to supply funders with generic information on services, rather than to improve client outcomes.[10]

An outcomes management system (OMS) facilitates accomplishing each of these mandates and can result in a more effective and efficient organization. An OMS can help engage staff in focusing on improving consumer outcomes and quality of care, which is the sole reason that mental health organizations exist. Clinical staff and top management can use the aggregated data from an outcomes management system to dramatically enhance the process and productivity of continuous quality improvement (CQI) efforts. These OMS-related processes can help an organization become more viable in a competitive market by more efficiently and effectively improving the well-being of consumers. The authors base theses premises on their experience in a successful implementation of an enduring OMS and on the existing literature. This perception, however, is at odds with the experience of many organizations who have found that an OMS is

challenging to implement, even more challenging to sustain over time, and does not yield the described benefits.

The purpose of this paper is to delineate critical decision points and describe key components that need to be considered by organization or state management when the goals are to improve clinical outcomes and increase efficiency in delivery of services. The remainder of this paper describes the lessons learned by the authors' implementation of an OMS, elaborates on the types of outcomes that are needed and the support for them, presents a conceptual model for an OMS, reviews factors involved in building internal capacity, and describes some of the essential components needed to sustain an OMS.

The formulations presented in this paper are rooted in the authors' experience while collaborating for over 14 years on a state initiative in Michigan, previously described as the "Level of Functioning" Project.[11] This initiative began by inviting providers to voluntarily join the project, the aim of which was to assess client-specific outcomes for children and youth with a serious emotional disturbance (SED) who were served by the Department of Community Health. Providers were responsible for all needed services, including outpatient, more intensive community-based services (e.g., wraparound, home-based), residential, and hospitalization if needed. Administrators, a university researcher, providers, and consumer advocates shaped this ongoing project, which is now in its 17th year. This OMS initiative has been enduring, serving changes in state administrations that included both Republican and Democratic governors. Given that the authors' experience with this initiative partially shaped the framework presented in this paper, the authors' observations and lessons learned will be described first.

Establishing an Outcomes Measurement System: A Developmental Perspective

The natural progress of this initiative falls into four phases or types of activities, which were retrospectively identified. They include the original purpose and tasks accomplished, evolved activities that seemed to be part of a natural maturation of the project, indirect or serendipitous events that were mostly due to the participant providers applying their ideas in their local community, and the current stage.

Phase one: Establishing client-specific outcome system for CQI

The intentional goal, as originally conceptualized, was to facilitate Community Mental Health Service Providers (hereafter referred to as "providers") engaging in CQI at the agency level by using client-specific outcome data to improve care and, thus, outcomes. This began by encouraging providers to collect outcome data for each client. From the onset, two values were espoused: (a) the importance of positively reinforcing any agency that continually collects and examines client-outcome data, rather than giving negative consequences for interim poor outcomes and (b) the value of each locality using local outcome data to generate ideas for improving quality of care.

Practitioners completed an outcome measure[12,13] for each client at intake, quarterly, and at exit. The university partner electronically collected de-identified data monthly and generated outcome reports for each provider. In keeping with the expressed values, these provider-specific results were available only to that provider. At "data parties" held quarterly, the university partner presented aggregated data, collapsing across all clients for all providers. Sites began sharing how they used data to try to improve services and how they managed the practical

aspects of implementing changes. Joining this initiative was voluntary, and it grew from about 8 providers to approximately 90% of the state at year 14. Thus, an OMS was developed with the components being state administrators, the providers operating under the auspices of the state, and a third party providing data analysis and feedback to the state and providers.

Phase two: Benefits of data for the state

The project evolved, bringing more objectivity and science into practice and policymaking. The development of an outcomes-informed and empirically-based mindset poised the state for implementation of EBTs. Analyses of outcome results by types of clients, as identified by the Child and Adolescent Functional Assessment Scale® (CAFAS®),[12-14] triggered an impetus to improve services for specific client groups. By way of example, the state adopted an EBT to help parents develop better skills for managing youth with behavioral challenges, Parent Management Training, Oregon Model (PMTO™).[15]

The OMS played a key role at all stages of PMTO implementation. Administrators who advocated for PMTO were successful in obtaining funding largely due to the compelling evidence of its need. Once PMTO was selected, the intake administration of the outcome measure was used as a key criterion for identifying cases for which PMTO would be the treatment of choice.[16] This provided objective criteria for enrollment, assisted providers in identifying these youth, and ensured that the EBT was a match for the client's needs. The outcome data on the CAFAS and the Caregiver Wish List® (CWL®)[17] was also employed to evaluate PMTO, both in the short term during the pilot phase and for the post-pilot implementation.[18] The program evaluation strongly supported PMTO, compared to treatment-as-usual, thus helping to sustain and expand PMTO use statewide. Ongoing monitoring of PMTO outcomes continues presently.

During this phase, the state began to use data from the OMS to establish policies that included more objective and standardized criteria for case decision-making. Eligibility guidelines for statewide specific services, such as home-based, included some criteria based on the assessment tool used for measuring outcomes. In addition, consensus on three client-specific outcome indicators was established, and referred to as a "dashboard" because it provided a big-picture perspective for providers in the state. Thereafter, at the data parties, each provider received a one-page graphic displaying the state averages on each of these indicators and the averages for their site. As always, the site-specific results were made available only to each provider.

The OMS also provided evidentiary support for exemplary programs that maintained good outcomes across client types. The university researcher conducted a propensity analysis in which one provider's home-based program was matched on 11 observed covariates to a comparison group derived from the remaining statewide database.[19] These results found that youth served by this home-based program were statistically more likely to improve on the established state outcome indicators, compared to youth served by other providers across the state.

Phase three: Providers collaborate and conduct local program evaluation

The third phase refers to indirect or serendipitous effects. Providers leveraged skills and approaches gained or reinforced by participation in the Level of Functioning Project. The data

parties provided data, knowledge about statistical interpretation, a means of networking and a venue for learning from others, especially about implementing and sustaining innovative approaches and programs. The providers began to expect rational decision-making and an empirically-based orientation at the state level, and modeled these principles in their relationship with other agencies. Several providers used the OMS and their data skills to evaluate their outcomes for children referred from child welfare. They presented these findings to their local child welfare agencies, with the aim of developing collaborative interventions.

In Wayne County (Detroit), the mental health and juvenile justice systems used the same outcome measurement tool and found considerable overlap in the needs of the youth served, many of whom were receiving insufficient services. The two systems developed a set of initiatives to ensure treatment of mental disorders for youth under the jurisdiction of the juvenile court and to reduce out-of-home mental health placements. Another provider, which was the subject of the propensity article referred to above, used its data to initiate collaboration with juvenile justice. They used the OMS to evaluate the outcomes for their community-based services with delinquents, who otherwise would likely be placed in a juvenile justice residential facility. This resulted in local sustainability and expansion of the program. Yet another provider took a leadership role in establishing a countywide System of Care (SOC).[20] The intent was to implement a common assessment tool (the Juvenile Inventory For Functioning®) [21] that could be used by all of the child-serving agencies to determine the needs of at-risk youth in their community and to evaluate outcomes associated with services. At the data parties, these local applications, as well as others, were presented, establishing a forum for sharing successful, local initiatives.

Phase four: Real time technology

The current phase, which began in 2009, is distinguished by implementing statewide use of a web-hosted solution that contains the outcome measures mentioned above. This system instantaneously presents client-specific interpretive results, helps guide case decision-making, monitors progress during treatment, and generates aggregated data on client needs and outcomes. The providers no longer depend on a third party to generate or analyze aggregated data nor do they experience the delays associated with external assistance, as the web-hosted OMS delivers aggregated outcomes in real-time for supervisors and managers. Monitoring outcomes while clients are still receiving services helps practitioners recognize setbacks in progress, which may be addressed by mid-course corrections. This marks another milestone toward enabling providers to "own" responsibility for striving toward better quality of care. The state administrators are also able to have a statewide OMS database to guide rational decision-making about policies, practices, program development, and collaborative programs with other child-serving agencies.

Lessons learned

Initially establishing values that espoused a positive, strengths-based approach toward agencies and that emphasized client-specific, meaningful outcomes was critical to the success of the initiative. On the other hand, efforts at introducing the OMS were shortsighted, in part because of naiveté about implementation science, the state of technology in 1994, and a limited budget. In the remainder of this paper, the authors provide recommendations for building the internal capacity for an OMS, based on the literature and currently available resources.

The OMS turned out to function like a compass, as it guided and gave direction even when the original plan was barely etched out. In fact, in its current state, the OMS is more closely akin to a global positioning system (GPS) because it helps provide directionality at every level of the organization – a specific client, program managers or clinical supervisors, agency administrators, state leaders, and system of care (SOC) partners. Additionally, the authors found that building an OMS greatly facilitated implementing EBTs, and that in fact, they are complimentary endeavors.

Need for Consumer-Specific, Meaningful Outcomes

The focus: Consumer-specific outcomes

Consumer outcomes should be central to an organization's performance measurement system because improving consumers' well-being is the reason for funding mental health services. Outcome indicators, such as functional status and quality of life, determine the extent to which services achieve the desired results.[22,23] McHugh and Barlow[7] describe improvement as reduction in impairments and enhancement in quality of life. Consumer-based outcomes should be distinguished from other outcomes, such as services-based measures (e.g., timelines of services),[8] implementation-based outcomes (e.g., how well an EBT is implemented),[24] and system of care-based outcomes (e.g., how well child-serving agencies coordinate and deliver services to youth with a serious emotional disturbance).[25]

In a SOC, it is critical to collect end-result outcomes for customers. The SOC goals for any given community may differ; however, the ultimate goal of any SOC is to improve the youth's functioning and the family's quality of life. A system of care is by definition a dynamic entity, and without consumer-specific outcome data, an important part of the information needed to inform improvement of the SOC would be conspicuously absent. Goldman, Hodges, Kanary, & Wotring[26] contend that it is critical for leaders to implement an outcomes-driven system, even within the context of adherence to SOC values and infusion of EBTs. In fact, having end-result outcomes for consumers can greatly enhance collaboration across SOC partners.

Collecting consumer-specific outcomes is important even when an evidence-based treatment is the clinical intervention.[7-10,24,27-29] Efficacy data provided by EBT researchers does not necessarily generalize to local applied settings.[29] With OMS data, the provider can document outcome achieved when using the EBT with its local clients and can determine whether the clinical and cost effectiveness of the EBT is maintained over time, compared to "treatment-as-usual" or other interventions. Outcome measures that are specific to an EBT (e.g., trauma scale for trauma-focused treatment) have their utility; however, use of them to the exclusion of the provider's routine outcome measures imposes major limitations. Firstly, comparison of results for the EBT to other interventions is precluded. Secondly, the provider foregoes monitoring the youths' overall functioning across various settings (e.g., school, home) and mental-health related domains (e.g., depression, substance use). Youth with SED typically have multiple areas of impairment, and any given EBT may not aim to, or result in, reductions in impairment in all major areas of functioning.

Meaningful outcomes that are relevant to practitioners and consumers

The outcomes measured should be those considered the most critical to making a difference to the client's life. Kazdin[29] contends that for change to be clinically meaningful or significant, the client should experience better functioning in the real world. A parent advocate describes the outcomes desired by families of youth with SED as "Expressed in functional terms . . . we want our children to be able to live at home, to go to school and get good grades, to enjoy friends and activities in the community, and to become responsible adults living independently."[30(p230)] Improving a youth's functioning in the family, at school, and in the community has been identified as the most important target for intervention by the federal government.[31(p29425)] Consequently, outcome measures should utilize objective, well-defined referents, such as behavioral descriptors, and describe degree of change in terms of real-life changes in the consumer's functioning or quality of life.[23,29] From a psychometric perspective, it is imperative that the measure demonstrates sensitivity to detecting change in the target population,[32] as well as have evidence of reliability and validity.

To be useful in serving the individual consumer, measures that assess outcomes must be helpful in client-specific treatment planning, treatment monitoring, and treatment evaluation.[23,29,32] The pre-intervention administration of the outcome measure should assist in identifying client concerns, in generating goals for treatment planning in partnership with the consumer or family, and in selecting or designing intervention(s). This assessment should guide decision-making, including matching client needs to targeted services. The measure should also allow for a high level of individualization so that it permits identifying concerns and goals important to the specific consumer, yet are ones that are acknowledged as important for functioning in general.[29] The pre-intervention assessment results should be easily understood by consumers and clinically helpful to practitioners.

Consumers understand the benefit of outcomes measurement, and they report wanting practitioners to share results with them so that they can be more engaged in their own recovery.[33] The role of the consumer or family is enhanced greatly if there is an opportunity to periodically review progress in treatment. If the client's functioning is not improving, the treatment plan is modified while the consumer is still receiving services. This modification can help prevent events that the client and provider would like to avoid, such as crises that jeopardize the client's current quality of life, hospitalizations, and, for children, out-of-home placement. This process is akin to having an "outcome-ometer" for guiding self-correction of the treatment processes in real-time. It helps practitioners and clients maintain objectivity and stay focused on end-point goals. When services stop, end-result outcomes are captured to determine whether each client served improved. A celebration to recognize gains is in order, or a problem-solving session to consider next steps for the consumer.

A Model for an Outcome Management System (OMS)

Based on the experience described above and a review of the literature, the authors developed a conceptual model that strategically places consumer-based outcomes at the center of an organization's performance measurement system. A performance measurement system[22] includes all of the functions within the organization and all of the performance measure indicators, including ones not directly related to consumer outcomes. A description of a

performance measurement system by Baars et al.[22] served as a starting reference, especially their grouping of organizational domains into structure (i.e., setting of service delivery), process (i.e., activities between practitioner and patient), and outcomes (i.e., generates effectiveness and efficiency studies).[22]

Figure 1 presents the model proposed in this paper. The larger circle, labeled "Outcomes Management System (OMS)", shows that outcomes management relates to all aspects of the organization (represented by the rectangles). However, in this model, organizational activities should ultimately contribute to the goal of improving consumer functioning. Situated at the core of the model (i.e., inner circle) is "End-Result Outcomes for Consumers (EROC)". This acronym is deliberately used to refer to client-based outcomes for each consumer served, which necessitates assessing the client's functioning at least at entry and at the end of services. In aggregate, these data provide program evaluation of services. EROC, which is "core" spelled backward, should be at the core of any performance measurement system. Having data on EROC permits the provider to be accountable for each consumer's outcome as well as allows for evaluation of local interventions.
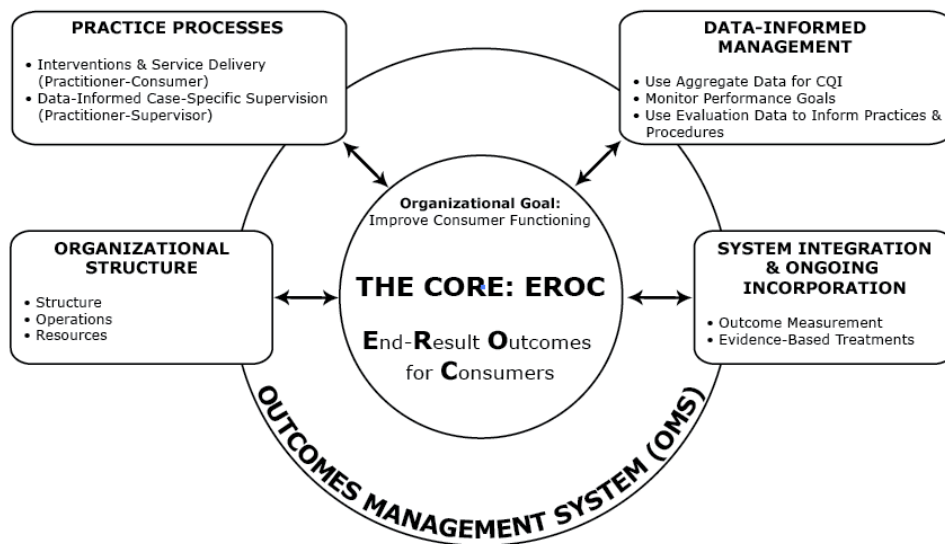
Figure 1.
Outcomes as the Core of a Performance Measurement System

In Figure 1, there are four organizational domains that have a bi-directional relationship with outcomes: (a) structure of the organization, (b) practice processes, (c) data-informed management activities around CQI, and (d) system integration and on-going incorporation of activities that are key to quality of clinical services. For the structure domain, the authors defer to Baar et al.,[22] who include various operations, staff and client characteristics, requirements, and organizational resources, including technology. While EROC is emphasized in the current model, it is recognized that the tasks included under the structure domain are critical to

maintaining the organization. The remaining three domains described below are based on the authors' conceptualization of how an OMS should operate.

Practice processes include activities aimed at providing optimal services to individual consumers. There are two aspects: direct services and supervision aimed at improving case-specific outcomes. Direct services encompass the various treatment interventions and array of services delivered, including EBTs, as well as practitioner-consumer interactions around assessment and outcome monitoring. In addition, case-specific supervision of targeted cases, which are not improving or are vulnerable to risk escalation, is included in practice processes. The objective of the supervision is to prevent anticipated negative outcomes and to problem solve the reason for a consumer's lack of progress while he or she is still engaged in treatment. With real-time technology, both the supervisor and the practitioner can easily identify these cases and access the relevant assessment results and treatment plans. This type of supervision is referred to as "data-informed" in Figure 1 because this consumer information is readily available during supervisory sessions.

The model also specifies a domain for data-informed management. In an OMS, aggregated data are used for CQI activities, to set performance goals, and conduct program evaluation that informs practice changes. The organization's top management, program directors, or even state leaders can undertake these management activities.

A fourth domain focuses on the need to attend to systematic integration and ongoing support of initiatives focusing on improving outcomes. For example, the process of incorporating an EBT and maintaining ongoing fidelity checks and coaching has recently received considerable recognition.[24,34] Outcome measurement was added, as it requires integration at all levels of the organization and ongoing support to ensure meaningful use and sustainability.

Data Utilization at Multiple Organizational Levels

Top management at the organizational and state levels needs to have access to aggregated outcome data so they continually maintain a focus on improving quality of care. With the availability of end-result outcomes, along with other information, management can conduct program evaluation and assess efficiency of service delivery.[22] Efficiency refers to the extent to which intended outcomes are accomplished with the most optimal use of resources. Efficiency includes indicators of productivity (e.g., length of stay, number of home visits, and number of sessions) and cost indicators.[22] For example, Daleiden and colleagues[35] reported that the rate of consumer-based improvement accelerated after an evidence–based services initiative began. In the title of their article, they summarize their accomplishment as "getting better at getting them [consumers] better".[35] With over 10 years of data on one outcome measure (CAFAS), they could easily detect change in rate of improvement. The median rate of improvement nearly tripled during a four-year period after this initiative began. An alternative way of viewing the increased efficiency is that the same amount of improvement was achieved in less time (i.e., the average length of time to achieve the same results was reduced by 40% to 60%, depending on which covariates were statistically controlled).[35]

Evaluation results regarding outcomes and service delivery efficiency help to inform program refinement and development, determine staff training needs, and shape policies and

procedures. Harmful treatments can be discontinued and alternative interventions developed to replace ineffective ones. McInnes[36] points out that this process requires using data internally in a systematic and reflective way. Top management needs the resources to engage in an iterative process in which they identify gaps or findings that fall below expectations.[22] They can then consider alternatives, even making models to forecast the effects of specific changes, implement assumed improvements, and then examine the resultant effects.[22] Furthermore, sharing data with various stakeholders may lead to more enriched discussions about the direction of future changes. If consumers are included as stakeholders in these activities, they can influence the system to be more accountable to consumers.

In many organizations, top management does not have access to the types of data needed to inform decision-making. Achieving this level of data utilization requires organizations to progress from "data-as-usual" to useful data. This process can result in a transformation, affecting all levels of the organization. Table 1 describes a hierarchy of data usefulness and the groups that benefit the most at each level. "Effort" data refer to the basic information collected by organizations to document that clients are served, which is typically provided to funders and some oversight entities. This level of information, while necessary, merely establishes that an effort was made to potentially help clients. The "Outcomes" level refers to client-specific outcome data (i.e., EROC) and benefits consumers when practitioners focus on achieving outcomes and consumers participate in monitoring progress. Moving up the hierarchy, the "IMPACT" level refers to the aggregation of EROC data across consumers and the implications that emerge from examining program evaluation and efficiency information. Unfortunately, many organizations primarily use their performance measurement systems to report activity to funders and to sustain the organization, rather than to improve quality of care.[10,22]

Level of Data	Type of data	Who primarily benefits

effort	Basic data on services:
	    Number of hours
	    Number, type and date of services
		Providers - with billing
		Oversight entities - with determining if
		    services were provided

Outcomes	Outcome data for each child:
	    Monitoring progress during services
	    Consumer-specific, end-result outcomes
		Consumers – Can hold providers
		    accountable
		Practitioners – Can help with case decision
		    making

IMPACT	Aggregated data across consumers:
	    Effectiveness
	    Efficiency
		Management - to inform practice, policy,
		    or training initiations
		Consumers – benefits if quality of care
		    improves

Table 1
Hierarchy of Usefulness and Benefits of Data

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Data should also be readily available to mid-management, program directors, and supervisors so they can systematically reflect on program level data with staff. In addition, supervisors will increasingly be held responsible for attending to the quality of care provided to each consumer for whom they are ultimately responsible. McInnes[36] points out that this will

require more engagement of practitioners around quality of care issues, which may evoke "performance anxiety" among staff unless implemented in a supportive context. He describes the stages that a clinical director will need to work through with staff in order to implement routine outcome measurement and utilize it to improve service quality at the program level.

Building Internal Capacity for an OMS

The need to study and develop guidelines for implementing innovative practices has gained increasing recognition.[8,24,34] Unfortunately, implementing an OMS has received little attention. Garnering the support for implementing an OMS is particularly challenging for a subtle reason. It appears to involve "ordinary" activities that are already taking place (e.g., practitioners doing assessments, supervisors meeting with staff, and leaders making high-level decisions). However, implementing an OMS entails changing the mindset and activities of personnel at each level of the organization. It results in changing the culture of the organization so that ongoing learning and use of empirically- or knowledge-based information becomes ingrained.

Several factors that have been identified as critical to building an OMS include: the organizational culture, technology, support by top management, and staff involvement. Each will be discussed briefly. Numerous authors have concluded that organizations that value and support the systematic and ongoing use of knowledge and empirical processes (e.g., analysis of data) are more likely to be successful at building the internal capacity for outcomes measurement and self-evaluation.[37-39] Buckmaster[38] points out that outcome measurement is essentially a tool for learning. In fact, it appears that there is a bi-directional relationship between a learning culture and implementing an OMS. Botcheva et al.[37] found that having a learning culture greatly facilitated embedding an OMS, but also, that implementing an OMS acted as a change agent for creating a culture that values learning within the organization. Poole and colleagues[40] found that personnel in these types of organizations believe that measuring outcomes is helpful to clients, leads to program improvement, and does not distract from direct services.

An OMS as described in this paper is not possible without technology. As far back as 2003, The President's New Freedom Commission Report[1] stated that real-time, computer-based health records were urgently needed. Typically, mental health organizations view technology as an expense and spend substantially less on it than do other industries, which regard technology as a necessary investment.[22,39] Newer technologies that provide a real-time framework for immediate feedback to users are essential. Additionally, web-hosted applications are often preferred because they eliminate local software installation by IT, allow staff secure access even when outside the confines of the office, and permit integration with other electronic health/behavioral health records (via use of interoperable electronic health records).[4] In a study of adoption and infusion of technology, Cooper and Zmud[41] found that organizations that had a learning culture were more likely to have higher levels of technology infusion. In contrast, they found that "bureaucratic self-interest" inhibited infusion, although this barrier could be greatly lessened by the active involvement of senior management in mandating and coordinating the implementation effort. There should be increased motivation to use newer technologies in behavioral health care, given that this is one of eight strategic initiatives set forth by the Substance Abuse and Mental Health Services Administration for 2011-2014.[4]

Poole and colleagues[40] conducted a study with 76 non-profit agencies in which the purpose was to use path analysis to predict the quality of the organizations' outcome evaluation

plans. They found that technology and a learning culture were associated with high quality plans. The path analysis also showed that these factors were indirect effects, which were mediated by management support and staff involvement. They defined management support as the level of effort made by managers to convey to staff their commitment to outcome evaluation and to modify staff roles and responsibilities to enable the implementation. The staff in organizations with high support by management perceived that their work on outcome evaluation was an expectation of their job and was valued. Involvement had the largest direct effect on the quality of evaluation plans. As operationalized by Poole and colleagues,[40] involvement results from management (a) involving staff and organizational board members in the planning process for implementation and (b) regularly updating them about outcome-related processes and results. Note that the findings of this path analysis, based on prediction of quality of evaluation plans in non-profit agencies, may not generalize to other applications.

Essential Components for Sustaining an OMS

Most people in the field know of examples of abandoned attempts at implementing or sustaining an OMS at a state or organizational level. Based on the literature and the authors' experience with implementing an OMS that has endured 17 years, this section summarizes key components in sustaining an OMS.

A mission for management

A rationale for an OMS easily follows from the organization's mission statement, which likely refers to a commitment to improving the welfare of consumers. Accomplishing this mission translates to ensuring the collection of EROC data for each consumer and actively using this data in aggregated format to generate ideas for improving consumer outcomes. Collecting EROC data moves the organization from using data for expressing staff "effort" to determining the "outcomes" of interventions. Using aggregated data to inform policy, program refinement and development takes the organization from using data at the "outcomes" to the "impact" level. Management assumes responsibility of communicating the value of EROC data for the individual consumer and for the organization. For many organizations, accomplishing this task requires changing the organizational "mindset", and ultimately that of each staff member. Consider this progression in "mindset" from "we provide services to youth in need" to "we measure consumer outcomes for the services we offer", and finally to "we work to improve quality of services by determining outcomes for each consumer and by examining aggregated data to improve our programs". This would likely require a different mission statement, at least internal to the organization. The stage would be set for developing or enriching an organizational learning culture.

Increasing efficiency and enabling better clinical management via OMS technology

Key to sustaining an OMS is a technology solution that: (a) permits entering the assessment on the computer, (b) makes assessment and outcome results instantaneously available, (c) continuously displays the consumer's progress over time so that changes in service array can be made as needed, and (d) provides managers with a view of the needs and progress of the consumers for whom they are responsible.

Technology that achieves the above tasks infuses a level of automation that helps offset the new expectations of staff. Staff members are essentially asked to "do things differently" so that they are "working smarter, not harder". For example, at intake, practitioners should actively use the assessment information generated by the outcome tool to: (a) better match the consumer to treatments or care plans, (b) translate deficits in functioning into objectives for intervention, (c) highlight strengths that can help achieve goals, and (d) prioritize goals and set expectations for achieving them. When computerized assessment tool(s) provide immediate results that are meaningful to both practitioners and consumers, then practitioners can spend more time proactively thinking about their therapeutic approach, how to reduce potential barriers, and setting a tentative timeline for accomplishing goals.

Supervisors often become familiar with a case only when a supervisee voluntarily brings forward a problem or has a crisis that must be managed. With technology, supervisors' time can be reallocated to provide more proactive guidance for cases at entry and easily track the progress for all cases that they oversee. For example, one provider established a protocol, whereby the director of children's services identified all cases that were not making progress. These cases were discussed in meetings with supervisors, who in turn worked with the practitioners whom they supervised. The director took the responsibility to start the process of seeking solutions to help these cases get on track toward improving. This example of data-informed, case-specific supervision is referred to in Figure 1 under "Practice Processes".

Use of data in this manner requires a supportive, problem-solving orientation throughout the organization. Monitoring client change should be conceptualized as an opportunity to re-think one's approach. Providing opportunities for supporting practitioners when faced with challenges should be embedded within the organization. Employing this type of approach is especially critical for staff whose educational programs did not value objective outcomes assessment nor teach the concomitant skills.

Embedding an OMS

In Figure 1, the process of embedding an OMS into the organizational fabric is referred to as "System Integration and Ongoing Incorporation". This process is probably best conceptualized as embedding both the mindset (i.e., focus on end-result outcomes for customers) and the tasks to support the OMS. A supportive learning environment, initial training, and ongoing mentoring are needed. The goal is for staff members to experience the OMS as both efficient and helpful in clinically managing their cases.

It is critical for leadership to demonstrate how analysis of aggregated data can provide information for organizational decisions, especially around policies, practices, and training initiatives. Sharing aggregated data findings with staff helps them understand the rationale underlying organizational decision-making and fosters "buy-in". In addition, practitioners feel valued when they are involved in CQI activities, in which their ideas about possible needed changes in practices or procedures are genuinely considered. This is a morale booster, even among staff members who do not particularly "like numbers".

The proposed model for an OMS and the recommendations for embedding and sustaining it were intended to be broad-based, so as to maximize their applicability. However, there are likely limitations in generalizability to other consumer groups, that differ in age (i.e., adult consumers), in specificity of needs, in corresponding definition of client outcome, or in settings. In addition, research on the relative importance of various factors that likely contribute to

adoption, full implementation, and sustainability of the proposed model is lacking. Even with these limitations, the authors would maintain that the issues of CQI and infusion of data into decision-making is particularly critical when serving children and adolescents. Young people are on a developmental trajectory, and when their growth process "stands still," they are falling behind developmentally, putting their future functionality at risk.

Implications for Behavioral Health

Managing a mental health organization today requires use of EROC data – end-result outcomes for consumers – within an outcomes management system. For youth, improved day-to-day functioning is the end-result goal for the organization. Without an OMS, leaders, supervisors, and practitioners do not have the information they need to guide their actions toward improving client-specific outcomes. Outcome targets need to be meaningful and provide direction at intake as well as throughout treatment. For an OMS to be truly functional, it needs to benefit consumers while they are still receiving services (i.e., in real-time). Fortunately, current technologies now make accomplishing this very feasible. Use of technology, especially web-hosted applications that give instantaneous results, requires changing what staff do (re-allocation of how time is spent) rather than necessarily adding more burden. This results in managers, supervisors, and practitioners being more efficient, more informed, and able to spend more time doing the tasks they feel they were hired to do.

Building internal capacity for an OMS requires commitment by top management to developing an OMS, by communicating this to staff and inviting staff involvement. Fostering a culture that values learning within the organization facilitates development of an OMS, which in turn, provides valuable information for learning at all levels of the organization. Current trends and mandates emphasize that organizations need to use more empirically-based assessments and treatments, which requires openness to new knowledge.

A positive "snowball effect" can emerge from staff developing a mindset more clearly focused on consumer outcomes and experientially using data to try to improve practice. Examples provided by the authors include eager engagement in reviewing data for CQI activities, use of OMS data to foster collaboration with child welfare and juvenile justice agencies, and development of a countywide system of care partnership.

In addition, the data on needs and outcomes greatly facilitate implementation and evaluation of EBTs at the state level. The OMS also identified local programs with exceptionally good outcomes, which could potentially become evidence-informed practices that are offered throughout a state or region. Identification and ongoing evaluation of these practices is critical if non-EBTs continue to be the majority of services delivered. Thus, an OMS, and the learning culture in which it is embedded, can enhance the organization's capacity to respond to mandates,[3-6] to remain viable in a competitive market, and to capture the talents of staff for advancing the organization's main task – improving the well-being of consumers.

Notes

[a]In this paper, the term "consumer" refers to mental health consumers, who may be adults, children, or adolescents, per recommendation of the National Alliance on Mental Illness (http://www.nami.org/template.cfm?section=find_support). It is used interchangeably with the term "client."

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