

Regular article

Outcomes, performance, and quality—What’s the difference?

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Abstract

Calls for greater accountability within the addiction treatment field have led to a wide range of efforts designed to improve treatment performance, quality, and outcomes. However, efforts with conceptually and methodologically different approaches have used the *same* umbrella terms such as “quality,” “performance indicators,” and “outcome domains,” causing substantial confusion among providers and policymakers. This article provides operational definitions of the terms used in discussing quality, performance, and outcomes, as well as a discussion of ways to integrate efforts to measure treatment system performance and quality *during treatment* with patient outcomes *during and following treatment*. This article thus helps build a common understanding about how these efforts to bring greater accountability can be combined and integrated to improve the attractiveness and effectiveness of addiction treatments. © 2007 Elsevier Inc. All rights reserved.

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1. Introduction

Substance use disorders are associated with major problems in society such as crime, lost productivity, excessive health care costs, and a general deterioration of family and social relationships. Because of these serious public health and public safety problems and because most treatments for substance use disorders are provided through public funding (Substance Abuse and Mental Health Services Administration [SAMHSA] block grant, Department of Veterans Affairs, Indian Health Service, federal and state prisons, etc.), there is understandable interest in assuring that the more than 13,000 licensed, specialty sector addiction treatment programs in the United States are using the public dollars responsibly, efficiently, and effectively.

There is reason to be skeptical about the performance and accountability of addiction treatment programs. Virtually

every evaluation of “need for addiction treatment” shows that *potential* demand is well beyond current capacity (Substance Abuse and Mental Health Services Administration, 2002b; Substance Abuse and Mental Health Services Administration, 2004b). Yet, less than one tenth of those thought to be in need of care actually seek the available treatments (SAMHSA, 2004b). This may be due to many factors, one of which is that those in need do not want the available treatments. Recent studies have pointed to a deterioration in the basic infrastructure of the treatment system (McLellan, Carise, & Kleber, 2003; Roman, DuCharme, & Knudsen, 2006); specifically, the clinical and management personnel turnover rates as well as program closure rates within the public sector treatment programs are very high. While decreases in services have been reported earlier (Simpson & Curry, 1997), recent research has suggested that higher caseloads and lower treatment time per client are major factors influencing treatment quality (Lemak & Alexander, 2005). Funding levels for addiction treatment (both public and private) have been cut at a sharper rate as compared with the rest of health care system (Institute of Medicine [IOM], 2006; SAMHSA,

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2005). The net effect has been that the number and range of medical and social services provided within these programs are at an all time low and that the patient dropout rates from treatment are correspondingly quite high (see McLellan & Meyers, 2004).

This serious situation has led to a wide range of efforts designed to improve treatment accountability and outcomes. Indeed, the calls for improved accountability and better outcomes have come from virtually every participating agency and organization within the addiction treatment field, including the addiction treatment providers. However, these calls for better performance and accountability have come from many perspectives, each with a different cultural and historical approach to achieving that goal. An additional complication has been that most of these conceptually and methodologically different approaches have used the *same* umbrella terms: “quality,” “performance,” “outcome domains,” and “evidence-based practices.” This broad, powerful, but diverse call to evaluate, perform quality improvement studies, implement performance measures, and assess outcomes has led to confusion among providers and even among those charged with system-level policies.

Having this as a background, we offer in this article some definition of commonly used terms and some historical and contextual discussion of the various approaches to improving quality and outcomes. This article is an attempt to assist those treatment providers and policymakers who are earnestly trying to fulfill the conflicting performance requirements of the various agencies attempting to improve addiction treatment. It is presented in three parts. Part 1 provides some practical and operationally relevant definitions of the terms used in discussing quality, performance, and outcomes. Part 2 discusses various approaches to measuring the quality of treatment as it is provided at the provider and treatment system levels. Part 3 discusses efforts to measure the results or outcomes of treatments during and following its completion. This article concludes with an attempt at integrating and aligning these different efforts under a common understanding about how performance indicators, outcome measures, provider certification efforts, and accreditation standards can be used to improve the effectiveness of addiction treatments.

2. Part 1—Outcome measures, outcome domains, and “recovery” in addiction treatment

The outcomes of any treatment are all the changes in patients’ symptoms, behavior, and function that can reasonably be attributed to the treatment. Because most patients entering addiction treatment present with multiple problems, virtually all “outcome evaluations” over the years have measured more than one outcome (Hubbard, Craddock, Anderson, 2003; see Moos & Moos, 2005; Simpson, 1981, 2004). The specific outcome measures can be grouped together by the area of function they represent,

and these groups of measures are termed outcome domains. Finally, when patients have achieved substantial reduction in their use of drugs, alcohol, or both, as well as improvement in several other important functional domains, this is termed recovery. Thus, outcome measures are the building blocks of outcome domains, and positive function in most outcome domains translates into recovery, as described in more detail below.

2.1. Outcome domains

An outcome domain is an area of life function or status measured at the patient level that is expected to be positively influenced by a treatment. There have been various listings of the outcome domains that are expected to be affected by “effective” addiction treatments (McLellan & Durell, 1995; McLellan, McKay, Forman, Cacciola, & Kemp, 2005; McLellan & Weisner, 1996; Simpson, 1981, 2004). There are of course differences in these listings, but most share a core set of measures. For example, the three key domains that have been measured in virtually every published evaluation of addiction treatment since the 1960s are substance use, employment/self-support, and criminal activity. Many other evaluations have also measured physical health, mental health, and family or social relations. Recently, the SAMHSA has called for the measurement and reporting of seven areas of function as a way of evaluating all treatments they sponsor (Substance Abuse and Mental Health Services Administration, 2004a). These National Outcome Measures domains include substance use, employment, crime, stability in housing, social connectedness, perception of care (or services), access, and retention.

Thus, improvements and favorable status in three to seven behavioral or functional domains have come to define the set of public and policy expectations of effective addiction treatment. This is a lot to ask of any treatment, but discussing the validity of these expectations is beyond the scope of this article (McLellan & Durell, 1996). In this regard, there has been an implicit assumption that resolution of the (usually) primary substance use problem (i.e., attaining abstinence) would by itself produce improved function on the other domains—this is why so many other problems have been termed “addictions related.” Indeed, abstinence from all substances has been considered a proxy for good function in the other domains of function that comprise recovery. While a full discussion of this assumption is beyond the scope of this article, it is neither a new nor a simple issue (McLellan, Luborsky, Woody, O’Brien, & Kron, 1981; Simpson, 1981). Suffice it to say that history has shown that the connections between substance use and functional status in the other outcome domains are quite complicated. It is not possible to assume that a patient who is abstinent is also employed, not committing crimes, and physically healthy. At the same time, most workers in the field agree that abstinence or, at the very least, very

significant reductions in substance use are a prerequisite for sustained improvement in the other outcome domains. It is widely accepted that recovery—in its fullest sense (see below) and not simply abstinence—is the goal of most patients, treatment providers, payers, and policy-makers. Thus, the attainment of recovery must be an integral part of all efforts to improve treatment quality, effectiveness, and efficiency.

2.2. Outcome measures

An individual's functional status within any outcome domain is defined by specific items, measures, or tests within the domain. For example, within the employment and self-support domain, individual items or measures might include number of days worked, dollars earned, days of unexcused absence from work, days wherein problems with supervisors or colleagues are encountered, a tax return for a year, and so forth. Similarly, specific items within the broader substance use domain might include the use of various drugs, use of alcohol, periods of craving for the substance(s), difficulties dealing with relapse situations, and so forth. In both examples, it should be clear that no single item, test, or measure is adequate to represent total functional status within a domain. For this reason, evaluators have often summarized several specific outcome measures or items into a total, factor, or composite score (e.g., 21 items regarding depression are summed into a Beck Depression Inventory) to provide a full representation of functional status within that domain.

It is of course easier and faster to simply measure one or two items (e.g., number of days worked in the past month) within a domain. If those selected items have face validity (i.e., they are obviously related to overall function within the domain) and the domain of interest is not a complex one (e.g., use of any illegal drug), the essence of the domain can be characterized simply. For example, if the domain of interest is “employment,” it might be possible to capture all that is needed by simply measuring the number of days worked during the evaluation period. On the other hand, if the domain of interest is “self-support,” the same measure is not adequate and it will be necessary to include items such as “dollars earned,” “number of dependents,” “cost of living expenses,” and other important measures to get an adequate indication of the functional status of the patient. The main points here are that an outcome *domain* and an outcome *measure* are not synonymous and that some functional domains have many facets, which require multiple measures, tests, or items to adequately characterize them.

2.3. Recovery

Recovery is a word that is widely used within the addiction treatment field but has taken on several meanings. Some use recovery to connote broad improvement in a wide range of functional areas without formal treatment. A

closely related usage is when recovery is a synonym for active membership in Alcoholics Anonymous (AA) because so many recovering people depend upon AA in their recovery efforts.

In this article, we use recovery as a summary term for positive function in most of the outcome domains typically measured among individuals who have attempted to overcome a substance use problem. We purposely make no distinction between the attainment of this status with or without formal treatment. Of course, this definition could reasonably be used with persons who are overcoming mental or physical illnesses, but here, we concentrate just on those with substance use problems.

Persons with substance use problems are said to be “in recovery” when they are not drinking/using *and* when they have a sound physical and mental health and are performing well in several other areas of their lives such as employment, family responsibility, and so forth. The Director of SAMHSA has said “. . .recovery is when patients are not just free of symptoms—they have a life” (Curie, 2005). Three things are important about this concept of recovery. First, as indicated earlier, it means more than simply the absence of target problem symptoms. Thus, recovery and abstinence are not synonyms. Abstinence is necessary but not sufficient for attaining full recovery. It is also important, however, to note that there is a significant difference between holding the treatment system responsible for assuring that individuals “have a life” and holding the treatment system responsible for identifying recovery-related problems and providing the supportive services that support clients' abilities to “seek a life.” Treatment systems that do not focus on threats to relapse would seem to be handicapping treatment's potential to assist clients in moving toward recovery.

The second thing of notice about this definition is that recovery is an active word—it is not used in the past tense. This is because it is possible for a person to change his or her recovery status rather rapidly, either for better or for worse. One will rarely hear that a person has “recovered” from substance use problems—instead, what one usually hears is that either the person is recovering or the person is in recovery. This connotes that a person is actively involved in managing a problem that could recur without that management.

A final, important part of the concept of recovery is that it is a person-level concept rather than a system- or program-level concept. It is possible to use outcome measures within several outcome domains to determine whether a person is in recovery. However, it is not possible to measure the “level of recovery” achieved by a health care system, a hospital, or a treatment program. How far treatment programs can go in supporting recovery before extra-treatment-related recovery support services become primary in the recovery process will probably depend upon many factors.

The above discussion of outcome domains, outcome measures, and recovery leads to a second discussion of

efforts at the policy and clinical levels to assure patients and payers that treatments are safe, efficient, and effective (i.e., produce good outcomes and are more likely to lead to recovery). These policy and clinical efforts can be divided into two groups: those focused on measuring and reporting the way treatment is delivered (i.e., treatment process or treatment quality) and those focused directly on the measurement and on the reporting of the results of treatment on the patient (i.e., patient outcomes).

3. Part 2—Measures of the providers and the processes of treatment

The widely held and quite reasonable assumption underlying all efforts of this type is that if individual practitioners, treatment programs, and health care systems provide “quality care,” then they will also show good outcomes and more patients in recovery. But what is quality care and how can a purchaser or user be assured that quality care is being provided? These questions have spawned a wide range of efforts designed to define and assure quality both at the level of individual practitioners and at the level of treatment programs and larger systems of care.

3.1. What is quality care?

The definition of quality in health care has changed many times over the past few years and is still undergoing conceptual shifts as patients become “consumers” and as doctors, nurses, and counselors become “providers or practitioners.” Thus, the following is simply one defensible, practical definition of quality care to explain the efforts designed to achieve it. Here, we define quality care operationally as evidence-based treatments that are provided by licensed or credentialed practitioners who have demonstrated core competence in their practice areas and whose activities are monitored regularly by program- and system-level measurement of quality indicators. The activities described within this operational definition of quality can be divided into activities that occur at the individual practitioner level and those that occur at the program and system level. It must be pointed out that there is a growing discussion in the field about whether all practitioners who provide addiction treatment services should be credentialed and licensed. Professional licensing examinations often do not include questions that examine the knowledge of a practitioner about addiction treatment; on the other hand, credentialing alone is often inadequate to uncover the knowledge of a practitioner about human development and psychology as well as the role of interpersonal relationships in treatment. It is beyond the scope of this article to examine these issues in detail; the essential point is that all practitioners treating individuals with substance use disorders need to be held to a quality standard that includes knowledge of the development and symptoms of addictions,

clinical assessment, the variety of treatment interventions available, the role of relationships in treatment of addictions, and how to plan for recovery with a patient.

3.2. Treatment quality improvement among individual practitioners: Licensing, credentialing, and evidence-based practices

3.2.1. Evidence-based treatments

A specific assumption within all of health care is that practitioners (here, we include all those who provide care such as physicians, social workers, nurses, counselors, psychologists, etc.) should actually deliver those medications, interventions, therapies, and practices that have been shown to be effective *through controlled research trials*. Those medications, therapies, and interventions that have been tested formally in experimental studies—as is demanded by the Food and Drug Administration as a condition of their approval—are said to be “evidence-based treatments or practices.” In this regard, there are sometimes differences between “practice guidelines” and “evidence-based treatments.” Practice guidelines are usually generated by knowledgeable, highly regarded individuals within a profession (e.g., a special committee of physicians, psychologists, and counselors) based on a combination of their experience, knowledge of the field, and practical considerations. In contrast, evidence-based practices are those judged to meet scientific evidence standards for effectiveness, namely, publication within the scientific literature. On the surface, this appears to be a higher and more objective standard than what is used in practice guidelines. However, it should be said that at the time of this writing, there is no agreement regarding the standards of evidence for evidence-based practices (e.g., is one controlled trial enough or should we require two randomized trials by independent investigators?), which specific therapies and practices have achieved various evidence thresholds, or which agency or organization is responsible for making these determinations.

For medications, the [Food and Drug Administration \(1990\)](#) has the full responsibility for implementing evidence-based reviews and, thus, has the clearest set of evidence standards and the best developed mechanism for deciding on the strength of that evidence. For therapies and nonpharmaceutical interventions, many research groups, societies, and agencies are attempting to assemble lists of evidence-based practices and to standardize the requirements for getting on that list. Perhaps the most well-developed effort to date to define evidence-based practices is the SAMHSA National Registry of Effective Programs and Practices ([Substance Abuse and Mental Health Services Administration, 2005](#)). This contracted effort has developed a very sensible set of guidelines for determining strength of evidence as well as a cadre of experienced, independent experts to review the available evidence for any practice or therapy. In this regard, we suggest that greater consensus

within the scientific literature and greater clarity to the field would result if the phrase “evidence-based treatment” were applied only to those medications, therapies, interventions, or procedures that had demonstrated positive findings in *both* controlled experimental trials (i.e., efficacy) and larger scaled, real-world clinical settings (effectiveness).

3.2.2. Licensing, credentialing, core competencies, and continuing education unit (CEU) maintenance

How can it be determined whether a practitioner is capable of providing a specific type of evidence-based care and whether that practitioner will continue to perform it with fidelity over time? In fact, in standard practice, this cannot be determined with certainty, and for these reasons, effort has been directed at obtaining *indicators* that show that qualified, trained, and capable individuals are providing care. We have italicized the word “indicators” here because it, too, is a word that is widely used in outcomes, performance, and quality measurement but has different meanings. Here, we define indicator as a measurable practice or behavior that is related to—but not identical with—the clinical practice of interest. For example, there is clear research evidence that patients with substance use illnesses who receive cognitive behavioral therapy (CBT) from well-trained therapists have better outcomes during and following treatment than patients who receive standard group counseling (Carroll, 1999). Thus, CBT is an evidence-based treatment. The only way to know for sure whether an individual therapist is doing CBT correctly would be to get taped samples from several sessions. This is simply not practical in most clinical settings. However, suppose we knew that the individual therapist had a license to practice therapy, had received a diploma or other credential from a professional society that certified general professional competence, had passed a course from an accredited institution that offered CBT, and had attended continuing education courses handled by qualified trainers where he or she learned additional techniques and honed previously learned CBT skills. We still would not know for certain that the individual actually was proficient as a CBT therapist, but we would have many indicators to make sure that one is able to perform CBT proficiently.

Evidence of each of these activities might come from a health system central registry on provider education. These types of evidence—or indicators—would provide face validity if there is indirect evidence regarding the likelihood that true CBT is being practiced by the individuals on that registry. Although it is possible to argue that even those who have all the listed indicators may not necessarily be able to practice CBT, it is not possible to argue the reverse. That is, it is almost impossible to believe that those therapists who do not have indicators such as the proper training, licensing, credentialing, or continuing certification could possibly provide quality CBT.

To summarize, licensing is typically a governmental indicator designed to eliminate individuals who are not

likely to provide quality care. Credentialing is an activity directed by a professional society or even by a large treatment organization (e.g., Veterans Administration) aimed at culling out those who have not shown adequate training to provide quality practices. More recently, SAMHSA and some state treatment agencies have gone beyond licensing and professional credentialing to attempt to assure that practitioners who wish to treat substance use disorders demonstrate (through written examination) competence in core areas that are specific to the treatment of addicted individuals and that are thought to be important for quality care (Kaplan, 2005; Substance Abuse and Mental Health Services Administration, 2003). Finally, state regulatory agencies have attempted to assure that individual practitioners in all professions get continuing education in topics where new evidence is produced and which are thought to be important for providing quality care (i.e., CEU credits).

3.3. System-level treatment quality improvement efforts: Performance indicators, satisfaction surveys, and accreditation

3.3.1. Performance indicators

Perhaps the major efforts to improve treatment quality have been developed by health systems using administrative information systems to derive indicators of appropriate clinical practices and processes. These efforts have come about in part because as managed care organizations took on more responsibility for care delivery, they found that the traditional methods used to measure outcomes and effectiveness (posttreatment clinical follow-up) were too costly, too time-consuming, and too dependent upon scarce research skills to be useful or practical for management. Thus, they turned to management practices from other fields and industries where the management information systems were modified to provide performance or quality indicators. The rationale for this approach has been nicely summarized by Brook, McGlynn, and Shekelle (2000): “For the vast majority of medical conditions, we will need to use process measures to assess quality. . . regardless of what we would like to have happen, most of the quality indicators that we should use will be process based.”

Performance or quality indicators are measures to estimate and monitor the extent to which the actions of a health care plan, program, or provider conform to best practices (evidence-based practices) or other standards of quality (Academy for Health Services Research, 2002). Two aspects of these indicators are important to emphasize. First, these measures are designed to be used at the organizational level (hospital, managed care organization, or care system) to indicate the average level of care provided by an organization, and rarely, if they are ever used to describe the care of an individual patient. Management uses these indicators as a means of monitoring and directing the care policies and practices of the organization. Second, most of

these measures about care, not about patient status, are collected and reported as it is provided and not following the end of treatment. Only recently have these measures begun to be applied to such treatment programs.

3.3.2. Standardized performance indicators and measures

Two sets of performance indicators bear special discussion. The National Committee for Quality Assurance (NCQA, 2006) has developed a set of general indicators of “quality health care” that are reported at the level of a health plan (e.g., University of Pennsylvania Health System; United Behavioral Health System). This set of indicators is called the Health Plan Employer Data and Information Set (NCQA, 2006). The data (indicators) are collected primarily from existing administrative data within management information systems that are already in place at most health facilities, and therefore, the data collection time and manpower requirements are minimized. Because these indicators are standardized, they can generally (not always) be collected, analyzed, and reported in a very rapid manner—thus allowing them to be useful to purchasers, managers, and consumers to reliably compare the performance of care provided in the very large number of plans that collect the HEDIS data. There are presently two performance or quality indicators within the HEDIS data set that are specifically related to addiction treatment. One indicates whether a client who has been diagnosed with a substance use disorder within the health system actually started some form of care for that disorder (initiation). This is an indicator of whether the health system is committed to providing care for substance use disorders. The second indicator tracks whether those who initiate care for their substance use problem remain in that care for at least three sessions (engagement). This can be thought of as an indicator of whether the care provided is attractive or appropriate to the needs of patients.

These two indicators say a great deal about the strengths and weaknesses of performance or quality improvement approaches. As should be obvious, these two measures are indeed face-valid indicators of two important aspects of care as it is intended to be practiced—as quality care. They are also very easy to extract, report, and understand. At the same time, they are only indications of quality and not proof; in addition, the limits of inference should be clear. It is possible to argue that patients who do not stay engaged in care for at least three visits are not getting quality care—but it is not possible to argue that patients who do stay engaged for three visits are getting quality care.

The only effort to standardize performance measurement that has come from within the addiction treatment field itself has come from a group of professionals called the Washington Circle Group (Garnick et al., 2002; McCorry, Garnick, Bartlett, Cotter, & Chalk, 2000). This group of addiction treatment researchers, providers, and policy-makers began by adopting a “process of care” model and defining a set of indicators for each stage within that model:

(1) *identification*, the percentage of enrollees in a health plan diagnosed with a substance use disorder; (2) *initiation*, the percentage of patients in the health plan admitted for addiction treatment who returned for any additional services following identification; and (3) *engagement*, the percentage of patients who initiated substance use treatment and who receive more than one visit within 30 days of the initiation of care.

Two other performance indicators are very widely used in the addiction treatment field. They are discussed here in relation to the other measures discussed previously.

3.3.3. Consumer experience (satisfaction) with care

One of the most widely used indicators of performance and quality has been consumer experience of care surveys of patients who have received care at a program or care system. This satisfaction measure is widely used by most service-oriented businesses such as restaurants, airlines, and hotels because it is a face-valid, intuitively obvious indicator of the consumer’s (patient’s) response to what he or she has received. Research has shown that although patient satisfaction is a very direct and important measure of whether a patient got what he or she expected, it is not well related to any other objective measure of good outcome from treatment such as urine results or employment or rearrest rate (McLellan & Hunkeler, 1998). Again, while it is obviously important to measure patients’ satisfaction with their treatment experience, at least in the addiction treatment field, satisfaction is not synonymous with good outcomes.

3.3.4. Retention in treatment

Many evaluations of addiction treatment outcomes following the completion of treatment have shown that those patients who have remained longer in treatment—whether in residential, outpatient, or methadone maintenance—have shown the best posttreatment outcomes in virtually all domains measured. Thus, measures of retention in treatment (e.g., number of sessions attended and duration of participation) are widely accepted indicators of treatment quality. Moreover, retention is quite easy to measure from most administrative or billing records and is intuitively easy to report and understand. Although not a direct measure of outcome per se, the ability of a treatment program to retain patients in active participation is a clear, sensible, and easy-to-use indicator of quality treatment. Measures of treatment retention and long-term management support including checkups following acute treatment as additional indicators of treatment quality by the Washington Circle Group are under development.

3.3.5. Accreditation

We cannot leave this topic without some discussion of accreditation and accreditation measures as a quality improvement strategy for treatment programs and facilities. Accreditation is a process during which programs and facilities are reviewed against a predetermined, specified set

of standards (Joint Commission on Accreditation of Healthcare Organizations [JCAHO], 2002). An accreditation survey is an independent, on-site review of the facilities, personnel, and treatment procedures compared with a set of standards related to patient safety, adequacy, confidentiality, and the like. Hence, accreditation provides information about differences in the quality of programs. Studies of accreditation, unfortunately, have shown that explaining variation in treatment programs' personnel, procedures, or facilities is very difficult. Issues such as adjustment for case severity, small sample sizes, differences in measurement methods, and so forth have made it generally impossible to predict (using accreditation standards) the patient-level outcomes from that program or facility. As Brook has suggested “. . . hospitals that are at the bottom of the quality distribution are unlikely to move to the top of the distribution if the adjustment method is changed and vice-versa” (Brook et al., 2000; JCAHO, 2002).

Although we might wish that a set of standards were in place against which to measure all treatment programs and facilities, the fact is that these standards are only beginning to be developed for addiction treatment. In the last 4 years, SAMHSA has undertaken pilot studies of accreditation for methadone treatment programs, moving these programs away from regulation and toward approximately the same standards as those from other health care facilities (Substance Abuse and Mental Health Services Administration, 2002a).

3.3.6. Recent developments in the use of performance indicators in policy and management

The recent IOM report, “Improving the Quality of Healthcare for Mental and Substance Use Conditions” (IOM, 2006), discussed the need to strengthen the quality measurement and reporting infrastructure in treatment of mental and substance use disorders. “Measuring the quality of care provided by individual practitioners, organizations, and health plans and reporting back the results is linked both conceptually and empirically to reductions in variations in care and increases in the delivery of effective care” (IOM, 2006). Several states are now experimenting with using performance indicators to inform prospective patients regarding the relative ranking of treatment systems and treatment programs on such indicators. Other states are using performance indicators to inform the units of care they purchase and even the amount of reimbursement a provider receives for care. For example, based upon the widely reported finding from research that short-term episodes of addiction treatment such as detoxification, not followed by continuing rehabilitative care, are rarely effective, some states and cities are using “length of stay” performance indicators to preferentially contract for longer episodes of care. Other states are contracting for networks of care (e.g., detoxification plus residential rehabilitation plus continuing outpatient care) and using length of stay and care transition (across levels of care) derived from

management or billing systems as indicators of the adequacy of the care contracted. The state of Delaware is measuring and auditing retention and length of stay at the individual patient level. Programs receive significant financial incentives for retaining patients in active participation and are liable for significant losses in revenues if they are unable to do so (McLellan et al., 2005). These are just a few versions within the growing trend toward the use of quality or performance indicators to shape the nature and content of addiction care.

4. Part 3—Measures of the effectiveness and outcomes of treatment

Since the 1970s, posttreatment outcome evaluation has been the traditional method of assessing the performance and accountability of residential and outpatient abstinence-oriented addiction treatments (McLellan et al., 2005; methadone maintenance outcomes have typically been evaluated while the patient has been receiving methadone). Proper execution of posttreatment follow-up requires substantial methodological sophistication, expense, and time (McLellan & Durell, 1995; Moos, Finney, & Cronkite, 1990), and if it is done correctly, it offers a definitive answer to the question: “How long do positive changes last following discharge?” This may be one of the driving forces in all public and policy debates about the value and enduring benefits of addiction treatment: At a minimum, reductions in drinking and drug use, improved self-support, and reductions in public health and public safety problems are important expectations of those who participate in and/or pay for most treatments.

However, while outcomes and recovery are important and even essential at a conceptual level, there are significant operational problems associated with collecting, analyzing, interpreting, and using outcome measures (McLellan & Durell, 1995). Because posttreatment follow-up outcomes are, by definition, collected months after completion of care, the eventual findings may be only remotely related to the direct effects of the intervention. Providers have argued correctly that they cannot be held responsible for the status of a patient who has left their treatment program over half a year ago and has since been subjected to the significant but unpredictable forces of the environment to which he or she has returned. Additional problems with the measurement and interpretation of outcomes are that despite three decades of outcome evaluations in the field, there is not a set of standard domains or measures agreed upon by the field. In turn, there is no registry of outcomes such as what is available in other health care fields. Moreover, there are as yet unresolved problems in the interpretation of any set of comparative outcomes where there are significant differences in the demographics and in the problem severity of the patients being compared (McLellan et al., 1996).

Although evaluations of posttreatment outcomes have value as research objectives, changes within the treatment delivery system have reduced the value of follow-up evaluations aimed at assuring accountability and effectiveness in addiction treatment. Like most other parts of contemporary health care, most addiction treatments are now delivered in outpatient settings (McKusick et al., 1998; McLellan et al., 2003; Substance Abuse and Mental Health Services Administration, 2002b). This fact is important as it challenges the fundamental value of posttreatment follow-up information. In outpatient settings, it cannot be assumed that patients are abstinent or even making progress during treatment, much less following discharge. Further, with so many patients being referred to treatment because of addiction-related problems such as crime, unemployment, or infectious disease (McLellan et al., 2003), it is neither prudent nor socially accountable to delay evaluation efforts 6 months or more beyond the end of a treatment episode. Indeed, the most appropriate evaluation question for contemporary outpatient treatments is, “Are patients participating in their care, reducing their drug use, improving their health and social function, and reducing threats to society during the course of treatment?” Further, the development of new medications for the treatment of addictions assumes that patients will take them for substantial periods of time and that patient symptoms will be reduced and patient function will improve only during the course of taking the medication (Anton et al., 2006). These modalities and methods of care delivery are much more akin to those provided under a chronic or continuing care model (McLellan, Lewis, O’Brien, & Kleber, 2000). In turn, evaluations of treatment effectiveness, results, and outcomes will have to change to correspond to the expectations of a chronic care model (McLellan et al., 2005).

In response to the public demand for outcomes, some providers, health care systems, and state authorities have contracted with local researchers to perform independent outcome evaluations, with most using instruments, domains, and measures derived from research studies. However, because of the expense and time required, such evaluations, which will serve as a means to check on whether the results of treatment meet expectations, can only be carried out every several years and, hence, is not suited for day-to-day management decisions. These independent evaluations are a good idea, not only because of the impartiality but also because the skills and time required are well beyond those found within most treatment organizations (see Dennis, Scott, & Funk, 2003; Scott & White, 2004).

A recent alternative to standard posttreatment outcome evaluations has been proposed by researchers at the Treatment Research Institute (McLellan et al., 2005), which is called concurrent recovery monitoring (CRM). The CRM procedure is only for outpatient treatments. It is a patient-level measurement system using the same clinically and socially relevant patient behaviors that have traditionally comprised recovery (e.g., drug use, employment, crime, and

medical status). However, because many cases of addiction require continuing care, because that care is now predominantly provided in outpatient settings, and because it no longer makes sense to wait several months after treatment completion to collect outcomes, these authors argue that the same “outcome measures” should be collected, reported, and used at regular intervals (monthly) from the very beginning and throughout the course of outpatient addiction treatment. This approach captures the traditional outcome measures that have come to define recovery and is carried out concurrent with ongoing treatment efforts, thus maximizing the potential clinical management value of the information. This approach may bridge the gap between clinical monitoring, performance monitoring, and outcome evaluation through a common metric and language for improving care (McLellan et al., 2005).

5. Conclusion

This article has reviewed the terms commonly used by those discussing the quality, accountability, and effectiveness of treatments for substance use disorders and the evaluation methods used in conjunction with those terms. The array of terms and methods is somewhat daunting, but the concepts are simple and straightforward. Patients and their families, payers, and providers have the expectation that treatment will reduce substance use, reduce the public health and safety problems associated with addictions, and improve the productivity and quality of life for these individuals—in short, engage patients into the continuing process of recovery. Care that reliably engages most patients with addiction into the process of recovery would be quality care by anyone’s standards.

Although it is possible to separate and measure the various domains and elements of recovery, as has been done in the traditional addiction treatment outcome evaluations, the measurement of these recovery-oriented outcomes is time-consuming, expensive, and technically challenging—too much so for regular use in the management of day-to-day care. As an aid to those receiving, regulating, and paying for addiction care, as well as to those providing that care, there have been efforts to develop more rapid and intuitive indicators of “quality treatment.” Licensing, certification, and credentialing for an individual practitioner as well as accreditation for a program or a care system are all indicators but not proof of the capacity to provide quality care. While care is being provided, the use of evidence-based practices by providers, better performance on system-level quality indicators such as those from HEDIS or the Washington Circle group, and greater reports of patient satisfaction are additional indicators but not proof of the capacity to provide quality care. We are aware of the implications for the organization and delivery of treatment services of systematic monitoring with quality indicators during treatment and recovery. We are also aware that

providing quality care based on the definitions we propose is an ideal. Perhaps, as in other areas of health care, we can only pose the ideal as a challenge to addiction treatment and monitor progress toward that ideal as we move forward.

Two things should be clear from this discussion. First, there is no acceptable reason for a provider, care system, or government health authority not to be accountable with regard to the provision of addiction treatment. There are many sensible options for collecting, analyzing, reporting, and using several measures of treatment performance and/or outcomes. Patients, payers, and policymakers can and should demand reasonable evidence of efforts to monitor and improve performance and outcomes from their addiction treatment providers.

Second, no single measure or indicator by itself will be proof of quality or an adequate demonstration of accountability. Each of the measures and indicators reviewed has distinct benefits and limitations. It falls on the particular needs and goals of a provider or health care organization to select the set of measures and indicators that will most efficiently provide the amount and detail of information to improve quality of care. At the policy and regulatory level, there is a need for federal, state, and local officials to better understand the uses and limitations of accreditation, performance indicators, and outcome measures. For researchers and evaluators, there is more need than ever for clear, understandable, and useful measures and reports of all the various quality measures available to assure that those measures become understandable to all who intend to use them.

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