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Improving Care for the Treatment of Alcohol and Drug Disorders

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Abstract

The Network for the Improvement of Addiction Treatment (NIATx) teaches alcohol and drug treatment programs to apply process improvement strategies and make organizational changes that improve quality of care. Participating programs reduce days to admission, increase retention in care and spread the application of process improvement within their treatment centers. More generally, NIATx provides a framework for addressing the Institute of Medicine's six dimensions of quality care (i.e., safe, effective, patient-centered, efficient, timely and equitable) in treatments for alcohol, drug and mental health disorders. NIATx and its extensions illustrate how the behavioral health field can respond to the demand for higher quality treatment services.

Keywords

Process improvement; Quality of care; Alcohol and drug treatment

Reports from the Institute of Medicine's Committee on the Quality of Health Care in America challenge the American health care system to prioritize patient needs, implement evidence-based decision making, and reduce inefficiency and errors in medical care.[1, 2] The emphasis on effective, efficient, consumer-oriented care reflects an extension of the process improvement models initially developed to reduce variation in manufacturing processes (e.g., Kaizen, Six Sigma, Statistical Process Control, Total Quality Management,)[3-5] to enhance management of many service delivery processes and relationships.[6, 7] These approaches reflect the adoption and evolution of the quality improvement concept—continuous improvement in product quality by reducing variation and error in process.

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The challenge to improve the quality of care may be especially daunting for the 14,000 specialty residential and ambulatory programs that treat alcohol and drug disorders. Many treatment centers struggle with weak organizational infrastructures, staffing instability, limited financial resources, and little capacity to collect and organize data.[8] Because resources are limited, they may benefit from re-engineering their service delivery and using process improvement strategies.

Services for treating mental health and addiction problems, however, have had little attention in efforts to improve the quality of health care.[9-11] The Network for the Improvement of Addiction Treatment (NIATx) is a community of addiction treatment programs that apply a simplified set of process improvement strategies to the delivery and management of addiction treatment services. Awards from the Robert Wood Johnson Foundation (RWJF) and the Substance Abuse and Mental Health Services Administration Center for Substance Abuse Treatment (CSAT) supported the formation of the Network. NIATx participants have evolved into a membership organization focused on improving the quality of addiction treatment services on six dimensions – care should be safe, effective, patient-centered, timely, efficient and equitable.

The Institute of Medicine's report, *Crossing the Quality Chasm*, [2] articulated these dimensions of health care quality to promote system changes and improve the quality of health care in the United States. More recently, another Institute of Medicine review concluded that these dimensions were applicable to treatments for mental health, alcohol and drug use disorders.[12] The six dimensions of care, therefore, may become central facets of continuous improvement initiatives and help to extend the application of process improvement from industrial and manufacturing environments to health and human services.

NIATx illustrates how drug and alcohol treatment services can measure and improve the quality of care by improving treatment processes. This paper provides an overview of NIATx, illustrates an approach to improving the quality of care, discusses the application of process improvement to the six dimensions of health care quality, and describes the extensions of the model to changing systems of care and the introduction of evidence-based practices. Details on the quantitative[13] and qualitative[14, 15] evaluation are presented elsewhere.

NIATx Overview

NIATx uses learning sessions, coaching, interest circles and web pages to teach participating addiction treatment programs to use process improvement to reduce days to admission, enhance retention in care, increase admissions, and minimize appointment no-shows. Change teams lead agency efforts to improve services; they are usually assigned a specific task and given a limited amount of time to complete the task. A "Change Leader" is appointed to form the change team from a cross-representation of the individuals involved in the process being reviewed and improved. An assessment of admission processes, for example, may include reception staff, assessment counselors, supervisors, and senior management. Change teams use five principles to identify, select, and test process improvements: 1) understand and involve the customer, 2) fix key problems, 3) pick a powerful change leader, 4) get ideas and incentives to improve from outside the organization, and 5) use rapid cycle testing.[13, 14]

Involve the customer

Customer service is a key facet of process improvement – goods and services must meet the needs of the customer. Change teams increase their customer perspective using satisfaction surveys, collecting suggestions from clients, conducting patient interviews and focus groups and using walkthroughs. Clients sometimes participate on change teams.

A central strategy is to conduct walkthroughs—a process flowchart is prepared and a staff person takes on the role of a patient while another acts as a family member. (The use of two individuals is encouraged to facilitate note taking and to confirm impressions; it also increases sensitivity to the family as a customer). During the walkthrough the staff experience first hand the process to be improved (e.g. admission, intake, transition between levels of care) in order to identify specific service delivery problems.[16] If the change team focus is the intake and assessment process, for instance, they call for an appointment, complete the intake process, and begin care. As they walkthrough the admission process, they note their impressions and reactions to the services as they are delivered and seek input from staff on what they would like to see improved. Do they reach a live person on the telephone? Are they able to schedule an appointment? Can they find the clinic location and correct entrance? How stressful is the intake process? Frequently, they identify major but often easy-to-fix inefficiencies (e.g., redundant intake questions and procedures) and service delivery problems (e.g., poor or non-existent signage and a lack of privacy for inspections of luggage prior to residential treatment) that contribute to no-show rates and poor retention in care. An analysis of admission walkthroughs from 327 NIATx applicants identified four consistent problems: 1) poor staff engagement with clients, 2) burdensome procedures and paperwork, 3) challenges in addressing complex patient needs, and 4) infrastructure barriers.[16] As a result of walkthroughs, programs better align treatment processes with patient needs and, overtime, apply process improvement to a full range of patient concerns.

Fix key problems

Change teams must ultimately address problems that are serious. Often these are problems that affect revenues. Intake delays are key problems, for example, because delays leave patients without needed help, increase no-show rates and no-shows represent a loss of potential revenue. Strategies to reduce no-show rates and reduce the time to admission not only improve customer services but reduce inefficiency and may improve organizational finances.

Pick a powerful leader

Change leaders must have sufficient skill and authority/influence to command resources, solve problems, and provide direction. While everyone affected by the change should be involved in the change process, it is also important that change efforts move forward despite uncertainty. The change leader should have respect in the organization and the ability to secure necessary resources. Typically, senior management selects change leaders and gives them the authority and resources required to be successful. Change leaders are often individuals being given opportunities to assume increased management responsibility. Key leadership attributes include abilities to a) challenge the status quo, b) verify results with data, c) remain focused on the objective, and d) be persistent and respect the change team.

Get outside ideas and encouragement

Often useful ideas for better service come from businesses other than addiction treatment. The most effective organizations seek out and test new ideas from many venues. NIATx members examine how the fast food and transportation industries solve problems related to waiting. The Vice-President for Quality Improvement at Ritz-Carlton Hotels spoke to a NIATx Learning Session about customer service. The goal is not to advocate for specific solutions but to help change teams develop a broader perspective and to explore potential alternatives. The NIATx learning collaborative shares successful strategies for process improvement and encourages each other to improve.

Use rapid cycles

Rapid cycle testing is the final key principle. Change teams use a rapid, repetitive application of the Plan-Do-Study-Act (PDSA) cycle.[17, 18] They identify problems and generate improvement options (Plan) and conduct a brief test of one option (Do). Outcomes are measured and analyzed (Study) and the changes are revised and improved with the cycle continuing until the improvement reaches a point where it justifies institutionalization (Act). These cycles begin as small changes. The change team pilots changes for a limited amount of time (e.g., one week). They assess feasibility and monitor initial impacts. Strategies that work are scaled up; those that have disappointing results are abandoned or modified until they are successful. By starting small, the change team promotes action and typically encounters minimal resistance because the change is limited in complexity and duration. As evidence accumulates that changes are successful, buy-in increases and the change is expanded and institutionalized. One important side effect of rapid cycle changes is that the organization begins to develop a “can-do” perspective.

NIATx Examples and Findings

NIATx participants have changed how they deliver care and improved access to care and continuation in care.[13, 14] This section summarizes results from selected NIATx participants. A few examples illustrate the improvements. Before the change team began working, patients at the Center for Drug Free Living in Orlando, Florida waited 21 days for intake appointments, 70% of the appointments were no-shows and there were 10 intakes per week. Over a three month period and successive changes, the change team eliminated intake appointments and implemented walk-in intakes (unless the patient requested a specific appointment). The result was a 0 day wait for intake, 0% no-shows, and 20 intakes per week. Jackie Nitschke Center, a small residential and outpatient service in Green Bay, Wisconsin, made more modest changes and reduced the time to treatment from 9.5 days (with 33% within 4 days) to 4.0 days (80% within 4 days). A residential treatment center in Falmouth, Massachusetts (Gosnold) modified program operations, separated residents into younger (less than 26 years of age) and older (26 and older) cohorts with different programming, and integrated the PDSA cycle into each treatment plan; treatment completion rates improved from 43% to 75%. For more examples see the case studies and presentations posted on the NIATx web site: www.niatx.net.

A cross-site evaluation examined client level admissions data from 15 residential and outpatient treatment units (in 13 corporations) participating in the first NIATx cohort to assess overall reductions in days to treatment and retention in care.[13] Across sites, days to treatment declined from 19.6 days in October 2003 to 12.4 days in December 2004 (37% improvement). The improvement was a significant change across sites and for outpatient and intensive outpatient programs (and did not reach significance for residential programs). Gains in retention in care were also significant. Overall, the percent of clients who returned for a second session of treatment improved 18% from 72% in October 2003 to 85% in December 2004; retention through a third unit of care increased 17% (from 62% to 73%). Small incremental changes in the delivery of care appear to lead to substantial gains in access to care and continuation in care.

Discussion

The Institute of Medicine challenges health care providers to focus on six dimensions of quality of care: safe, effective, patient-centered, efficient, timely and equitable.[2] The process improvement strategies that are at the center of NIATx speak to each dimension and its application to treatment services for alcohol and drug disorders.

Safe

Drug and alcohol treatments are generally not hazardous – patient injury is rare in most treatment settings. The failure to respond to a patient in need, however, is a safety risk. Programs that require patients to call back until a bed is available place their patients at great risk. Injection drug users, for example, are at high risk for HIV and HCV infection.[19] Acute intoxication increases the risk of traumatic injuries and automobile accidents.[19] Each day of delay increases safety risks. Public safety risks are also elevated; the likelihood of arrest and incarceration is much greater for active drug users.[19] Process improvements that reduce delays in treatment entry and improve retention in care make direct contributions to public health and safety and promote patient safety through reduction in behaviors that elevate health and safety risks.

Change cycles, moreover, can target safety concerns. Acadia Hospital (Bangor, Maine) used the NIATx paradigm to reduce the use of mechanical and physical restraint in a psychiatric unit; compared to the six weeks prior to initiation of a six week change process, the use of mechanical restraints declined from 77 to 49 (36% reduction) incidents and the use of physical restraint was reduced from 79 to 44 (44% reduction).[20] Prairie Ridge (Mason City, Iowa) opened a new building and used a change team to review building security and patient flow; the goal was enhanced security for patients and staff. Changes included new locks, addition of doors, enhanced lighting, and the introduction of procedures to reduce potential patient access to agency records and offices.

Effective

The Institute of Medicine reports recommend greater use of evidence-based practices to support effective care. Innovations, unfortunately, are not self-executing. Implementation requires purposeful activity and attention to six interdependent and required components: participant selection; training; supervision and coaching; fidelity feedback; use of data and decision aids; and administrative supports and interventions.[21] A process improvement perspective helps addiction treatment centers attend to these processes and implement evidence-based practices with high fidelity. As NIATx participants became more skilled in using PDSA cycles, they extended the complexity of change cycles and implemented motivational interviewing and offered clients incentives for continuation in care. A new Robert Wood Johnson Foundation national program, “Advancing Recovery,” (jointly coordinated with the Treatment Research Institute) further extends the application of process improvement to systems changes that support the implementation and use of five categories of evidence-based practices: 1) use of medications, 2) screening and brief interventions in primary care settings, 3) seven psychosocial interventions (motivational interviewing, motivational enhancement therapy, cognitive behavioral therapy, structured family therapy, contingency management, community reinforcement, and 12-step facilitation), 4) post-treatment aftercare, and 5) case management, wrap-around and supportive services.[22]

Patient-Centered

NIATx emphasizes a patient-centered orientation. During an evaluation site visit interview on June 28, 2006, Jay Hansen, executive director of Prairie Ridge Addiction Treatment Center in Mason City, Iowa explained, “Dignity and respect for the client are our core values. … Client centered care has been our guiding principal. NIATX reinforced that orientation. The confluence of our investment in motivational interviewing with the attention to access and retention was a great combination. …Employees see it as the right thing to do.” He continued, noting that NIATx led to changes in treatment planning. “The Treatment Plan work team developed a new approach to treatment planning. Counselors ask clients to be sure they know what they are shopping for. … The treatment plan requires listening to the client’s needs one patient at a time. We threw out the structured ASAM-based treatment plan [patient placement

and treatment plans are often based on guidelines from the American Society of Addiction Medicine—ASAM]. We now ask, 'What do you want?' The change in treatment planning engages the clients. It is a direct result of conversations with [NIATx members]."

Efficient

Efficient care conserves resources and eliminates waste. Revolving door admissions are one example of inefficiency in addiction treatment. Effective processes help patients engage and remain in treatment. Efficient treatment processes also allow counselors to assume larger caseloads and increase their clinical productivity. Acadia Hospital redesigned their admissions processes and implemented same day admissions for intensive outpatient services. Not only did more patients enter care, a greater portion of requests for treatment led to treatment admissions (increased efficiency) and, over a three year period, the service eliminated a $200,000 per year deficit and reported an annual surplus of $200,000 (improved productivity and financial stability).[14]

Timely

Delays in admission to treatment lead to no-shows for admission appointments and increased health and safety risks for patients. An initial focus for many NIATx members is days to treatment. A number of programs redesigned admission processes to permit same day and next day admissions. Other programs offer admissions on demand – instead of giving a specific time and date for an appointment; they ask, "When would you like to come in?" These patient-centered strategies lead to quicker admissions that are responsive to patient needs. Moreover, patients who enter care more quickly complete more units of care. NIATx members no longer expect clients to prove their motivation for treatment by waiting to enter care.

Equitable

Disparities in access to and retention in care are problematic. Using NIATx methods, treatment centers can monitor core indicators of treatment processes to ensure that access and retention are consistent across gender and racial/ethnic groups. Disparities are highlighted and the underlying processes are reviewed and modified to reduce and eliminate the differences. NIATx programs increased utilization of resources to serve more patients with the same staffing and served more underserved groups including women, injection drug users, and adolescents.

Next Steps for NIATx

NIATx's members feel that participation has helped them develop organizational cultures that support changes in their systems of care and address the Institute of Medicine's quality of care dimensions. The initial demonstrations document the feasibility of using process improvement tools to enhance treatment quality and improve care for alcohol and drug disorders. Four initiatives seek to extend NIATx principles and expand the reach of these qualify improvement initiatives.

Advancing Recovery

Advancing Recovery is a Robert Wood Johnson Foundation National Program using state and provider partnerships to promote adoption of five sets of evidence-based practices through changes in organizational practices, financing, and regulation. Financing and regulatory practices can catalyze or inhibit implementation of innovative services including evidence-based practices; the partnership with the state agencies responsible for regulating and funding services extends the application of NIATx to include state-wide systems of care. The initiative will provide insight into the efficacy and utility of inter-organizational partnerships, in this

instance purchasers and providers of services, on effecting organizational change. A national evaluation provides detail on innovation implementation strategies, examines change in the organization and delivery of care, monitors modifications in financing and regulation, records unanticipated consequences, tracks impacts on retention and continuation in care, and monitors sustainability of change. This program broadens NIATx to include a direct focus on the implementation of effective care.

Six state/provider partnerships (Delaware, Florida, Kentucky, Maine, Missouri, and Rhode Island) were selected through competitive proposals and additional sites will be added after the first year. The partnerships are making system changes including modification in financing mechanisms and regulatory policies to promote the adoption of medications, behavioral therapies, screening and brief interventions in primary care settings, case management and wrap around services, and continuing care strategies.

NIATx 200

Randomized clinical trials are rare in research on quality improvement.[23] The National Institute on Drug Abuse supports NIATX 200—200 outpatient treatment programs in 4 states are randomly assigned to four sets of organizational change supports and a minimal intervention comparison group to test the effectiveness and cost of four combinations of collaborative services developed for making and spreading organizational process improvements. The trial has two specific aims: 1) Test four levels of support (website, interest circles, coaching and learning sessions) on the treatment center ability to implement and sustain process improvements that a) reduce days to treatment b) decrease no-show rates, c) improve rates of admissions and d) enhance continuation in treatment; and 2) evaluate the effectiveness and cost of the four organizational change supports. Five state authorities for addiction treatment (Massachusetts, Michigan, New York, Oregon and Washington State) and about 40 addiction treatment programs within each state participate in the study. Payer and provider strategies to improve the adoption of process improvement changes are tested and evaluated based on access to and retention in treatment. A secondary analysis of administrative data examines the impact of the interventions on days to treatment, no-shows for assessments, agency admissions, client continuation in treatment through four units of service and treatment completion rates. States are the primary payer for addiction treatment services and reimburse agencies from state appropriations, Medicaid and federal block grant funds through the collection of client-level data for services rendered. Improving processes to ensure quicker access to and longer client retention in treatment is beneficial for the client, the treatment program and the state. NIATx 200 provides a rigorous test of the ability of addiction treatment programs to adopt process improvements and re-engineer services.

STAR-SI

STAR-SI (Strengthening Treatment Access and Retention—State Initiative) is an extension of NIATx to state authorities for addiction treatment. Nine state authorities (Florida, Illinois, Iowa, Maine, New York, Ohio, Oklahoma, South Carolina, and Wisconsin) receive process improvement coaching, involvement in national learning collaboratives to share ideas across the field, and technical assistance to a) improve state-and provider-level organizational processes that affect clients' access to and retention in treatment; b) develop provider and payer capacity to implement process improvement using peer-to-peer learning networks; c) partner with outpatient treatment providers, state provider associations, and fiscal intermediaries to design and implement the program; d) implement systems to track progress toward goals; and e) provide feedback to participating treatment agencies. The Center for Substance Abuse Treatment and the Robert Wood Johnson Foundation provide three years of support beginning October 2006.

The ACTION Campaign

The ACTION (Adopting Changes to Improve Outcome Now) Campaign permits most agencies delivering treatments for alcohol and drug disorders to participate in NIATx and begin to use process improvements. In partnership with SAMHSA, the Robert Wood Johnson Foundation, the Legal Action Center, the National Council on Community Behavioral Healthcare, and the National Association of Alcohol and Drug Abuse Counselors, the Campaign provides a web-based learning community, webinars, and technical assistance materials through its website: www.actioncampaign.org .

Implications for Behavioral Health

The NIATx learning community is expanding as more treatment programs and states learn of its potential to help them respond to the *Crossing the Quality Chasm* challenge and improve the quality of services for the treatment of alcohol and drug disorders. Shortly after the release of the first *Crossing the Quality Chasm* report, Molly Coye, a committee member, observed that there are "No Toyotas in Health Care" noting that health care systems had failed to reach "industrial-strength" levels of quality improvement.[24] She encouraged more attention to the business case for quality improvement and suggested that health care institutions and practitioners needed to attend to practice patterns that are inconsistent with evidence-based practices, apply continuous improvement strategies and become more accountable through profiling systems and practitioners.

Similarly, Chassin asked a provocative question, "Is health care ready for six sigma quality?"[25] His review suggests astounding levels of quality problems in health care related to overuse, underuse, and misuse of appropriate practices. He challenges the field to aim for "industrial-strength" reductions in the frequency of error in the delivery of health care.

NIATx participants have not achieved industrial strength levels of quality improvement. Nonetheless, they have made changes that promote patient centered care delivered effectively, efficiently and timely. NIATx member Arthur Schut, Chief Executive Officer at Mid-Eastern Council on Chemical Abuse in Iowa City and Des Moines, Iowa, reported in an evaluation interview that, "Effective changes benefit clients, staff, and the corporation. When all three are aligned, improvement is easy." NIATx is helping addiction treatment centers better align the needs of patients, staff, and the corporation to improve treatment process and enhance the business case. NIATx is one model for promoting the spread of process improvement from industrial settings to treatment for alcohol, drug and mental health disorders.

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