Implementation of a technology-based, quality improvement system at outpatient substance abuse treatment programs: A qualitative analysis

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Quality Improvement (QI) systems play a significant role in organizations, especially health care organizations. Although QI methods vary and are guided by different rules (e.g., "continuous quality improvement," "performance improvement") in general, they can be summarized by the following seven steps: 1) Organize and define the problem; 2) Objective, measurable indicators reflecting achievement of those outcomes are specified; 3) Methods for efficiently measuring indicators are developed; 4) Indicator measurement and feedback processes are implemented; 5) Team processes are employed to reframe feedback; 6) Action plans, based on available knowledge and evidence, are implemented to improve performance; 7) Steps 1-6 are repeated with new indicators identified by the organization’s stakeholders as deemed necessary. QI methods have become especially important in the health care domain because the Joint Commission for Accreditation of Healthcare Organizations (JCAHO) and the Commission on Accreditation of Rehabilitation Facilities (CARF) have made QI a central element of their accreditation process.

PF - RELIABILITY STUDY
Patient feedback is a de system developed within the NDA Clinical Trials Network. Researchers from six national CTRs reviewed the feasibility of the PF system as an outcome, substance abuse treatment programs across the country. The study revealed that allowing patients to give clinicians' feedback on therapeutic alliance and treatment satisfaction was feasible in substance abuse treatment programs, leading to the implementation of a web-based system. This system was launched in 2018 and has been used in multiple sites.

PF - EFFICACY STUDY
The goal of this study was to evaluate the efficacy of the PF system in improving patient outcomes. The study was conducted in a sample of 100 patients from 10 substance abuse treatment programs in Pennsylvania and New York. Patients in group therapy sessions completed anonymous surveys on a weekly basis evaluating treatment satisfaction and therapeutic alliance with their group counselors. Surveys are processed and two types of Feedback Reports are generated for clinicians to download as a password-protected web site.

PF System
PF System is comprised of patients during the 2-day period of each wave. The PF System is anonymous, 16-item self-report questionnaire measuring patient ratings of Therapeutic Alliance (4 items) and Treatment Satisfaction (12 items) on a 5-point Likert scale (1=Not at All and 5=Very Much). The study compared the two waves. Differences across the waves were found to allow for confidentiality of responses. Project Assistant (Clinic) assisted administrative staff collect surveys from the locked boxes and fax to the data management unit (DMU). The DMU processes the surveys and generates and sends reports to the clinical sites. PF System surveys are designed to help clinicians improve their practice, and feedback is returned to sites on a password-protected web site.

First Team Meetings (N=14)
The first team meetings were held once a month during the 12-week intervention and present an opportunity for program supervisors to discuss and monitor the PF Study for feedback to identify areas for improvement. The first team meetings allowed the clinical teams to expand their feedback for improvement beyond the PF system. Therapeutic Alliance, and Treatment Satisfaction (all items) and Clinical Subgroups (Gender, Ethnicity, or Length of Stay) were available. Once identified, the team brainstormed on ideas to drive strategy for improvement. These action plans were implemented and reported on the next team meeting.

RESULTS
The analysis of between-clinic differences (ANOVA tables above) illustrates the variety of substance abuse outpatient programs in terms of motivation for change, resources, and organizational climate. Study implementation varied among the twenty participating programs, and supervisors, clinicians, and patients had unique perspectives on the PF System. Additionally, ORC data that were significantly different between clinics appear to have an impact on study implementation of outpatient treatment programs. The study revealed that clinicians and supervisors endorsed the PF system, the value placed on patients' treatment experience, and therapists evaluated the outpatient treatment program feedback. Researchers hope to further explore the effect of clinic differences on the PF system implementation upon study completion.

CLINIC CENSUS

BASELINE ORGANIZATIONAL READINESS (FOR CHANGE) (N=127)

ANOVA - ORC

FOR CHANGE (N=127)

MOTIVATION FOR CHANGE

Baseline-Clinics

P-Value

High

<0.0005**

Low

<0.0005**

Overall

<0.0005**

Program Needs

<0.0005**

Office Changes

<0.0005**

Overall Performance

<0.0005**

Mean scores for clinicians and supervisors

ANOVA GLM procedures were run on all 18 domains of the ORC to test if there were differences between participating outpatient treatment programs in terms of resources, staff attributes, and organizational climate. The results of the ANOVA are displayed for the 10 domains that were significant between treatment programs.

PROGRAM CHARACTERISTICS

The majority of participating outpatient substance abuse treatment programs were part of larger organization (n=18), not-for-profit organizations (n=28), and had a history of receiving federal funding (n=33). The majority of participating programs (n=28) were serving patients with a history of alcohol use. The majority of participating programs (n=28) were serving patients with a history of alcohol use.

In order to measure differences across program sites, a qualitative analysis was conducted using data from fourteen participating programs. There was considerable variation in the frequency of choosing different Clinical Subgroups as topics for the Team Meetings. The following chart displays participating program topics (N=14) endorsement among the various Clinical Subgroups during the first study.

Team Meetings
The Team Meetings present a forum for clinicians and supervisors to discuss the following code: 1) patients identified as key weak areas, to brainstorm ideas, to make action plans to implement changes for improvement. Teams select as many (or as few) Performance Indicators (attendance, alliance, treatment satisfaction) and Clinical Subgroups (race/ethnicity, gender, length of stay subgroups) as they wish, to target strategies for improvement.

Baseline Results – Team Meetings
Baseline Team Meeting data (N=14) reveals the frequency with which teams endorsed each of the Performance Indicators and Clinical Subgroups during the first Team Meeting. Attendance (n=25), Race/Ethnicity (n=30), and Length of Stay (n=25) were identified as key weak areas. Based on the available baseline Team Meeting data, from fourteen participating programs, there was considerable variation in the frequency of choosing different Clinical Subgroups as topics for the Team Meetings. The following chart shows participating program topics (N=14) endorsement among the various Clinical Subgroups during the first study.

Team Meetings
Team Meetings present the opportunity for clinical teams to identify Clinical Subgroups (gender, race/ethnicity, and length of stay) to target improvement. Based on the available baseline Team Meeting data from fourteen participating programs, there was considerable variation in the frequency of choosing different Clinical Subgroups as topics for the Team Meetings. The following chart displays participating program topics (N=14) endorsement among the various Clinical Subgroups during the first study.

First Team Meetings (N=14)

E-communication

Between-Clinics

Intra-Clinic

Overall Resources

<0.0005**

<0.0005**

<0.0005**

Mean scores for clinicians and supervisors

ANOVA GLM procedures were run on all 18 domains of the ORC to test if there were differences between participating outpatient treatment programs in terms of resources, staff attributes, and organizational climate. The results of the ANOVA are displayed for the 10 domains that were significant between treatment programs.

TEAM MEETINGS

Motivation for Change

Stress

Training

Training Needs

Training for Change

Overall Motivation for Change

Mean

SD

36.5

37.64

33.72

9.04

28.33

4.89

5.84

<.0001**

<.0001**

<.0001**