

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

A qualitative analysis

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INTRODUCTION

QUALITY IMPROVEMENT

Quality Improvement (QI) systems play a significant role in organizations, especially health care. Although QI methods vary and go by different names (e.g. “continuous quality improvement”, “performance improvement”) in general QI can be summarized by the following seven steps: 1) An organization identifies desired outcomes; 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 review 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 I - FEASIBILITY STUDY

Patient Feedback is a QI system developed within the NIDA Clinical Trials Network. Researchers from six national CTN nodes evaluated the feasibility of the PF system at six outpatient, 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 outpatient substance abuse treatment programs, leading researchers to pursue further study of this QI system as a clinical study.

PF II - EFFECTIVENESS STUDY

To test the effectiveness of the PF system, researchers from Penn and NYU SoM collaborated to implement a multi-site, randomized clinical trial of patient feedback at outpatient substance abuse treatment programs. The aims of the study include comparing patient satisfaction with treatment and therapeutic relationship to retention and reduced substance and alcohol use. The PF System includes three components - Surveys, Feedback Reports, and Team Meetings - which are crucial to quality improvement.

RESULTS

BASELINE ORGANIZATIONAL READINESS FOR CHANGE (N=127)		
	<i>(10 - 50 point range)</i>	
Motivation for Change	Mean	SD
Program Needs	30.32	7.21
Training Needs	28.33	6.90
Pressure for Change	30.97	6.55
Overall Motivation for Change	29.84	4.89
Resources	Mean	SD
Offices	37.00	7.12
Staff	30.45	6.92
Training	31.70	9.04
Computer Access	33.72	7.50
E-Communication	33.93	8.81
Overall Resources	33.18	4.87
Staff Attributes	Mean	SD
Growth	36.5	7.00
Efficacy	40.31	5.23
Influence	35.77	6.41
Adaptability	38.57	5.72
Overall Staff Attributes	37.64	4.45
Organizational Climate	Mean	SD
Cohesion	37.12	6.61
Autonomy	34.91	6.06
Communication	33.59	8.42
Stress	34.91	9.51
Mission	35.61	7.52
Change	34.44	5.84
Overall Organizational Climate	35.18	4.14

Mean scores for clinicians and supervisors

ANOVA - ORC

Between-Clinics	P-Value
Resources	
Staff	<.0001**
Computer Access	<.0001**
E-communication	<.0001**
Overall Resources	<.0001**
Motivation For Change	
Program Needs	0.0195**
Training Needs	<.0001**
Organizational Climate	
Cohesion	0.0027**
Communication	0.0009**
Stress	<.0001**
Mission	0.0102**
Climate	0.0352**

** Indicates Significance at .05 error level

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

Background of Team Meeting

Supervisors and Clinicians use the following steps during monthly Team Meetings:

1. Generate ideas
2. Select Action Steps
3. Clarify Ideas
4. Vote & Document

The Team Meeting presents a forum for supervisors and clinicians to work as a team to identify weaknesses, 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

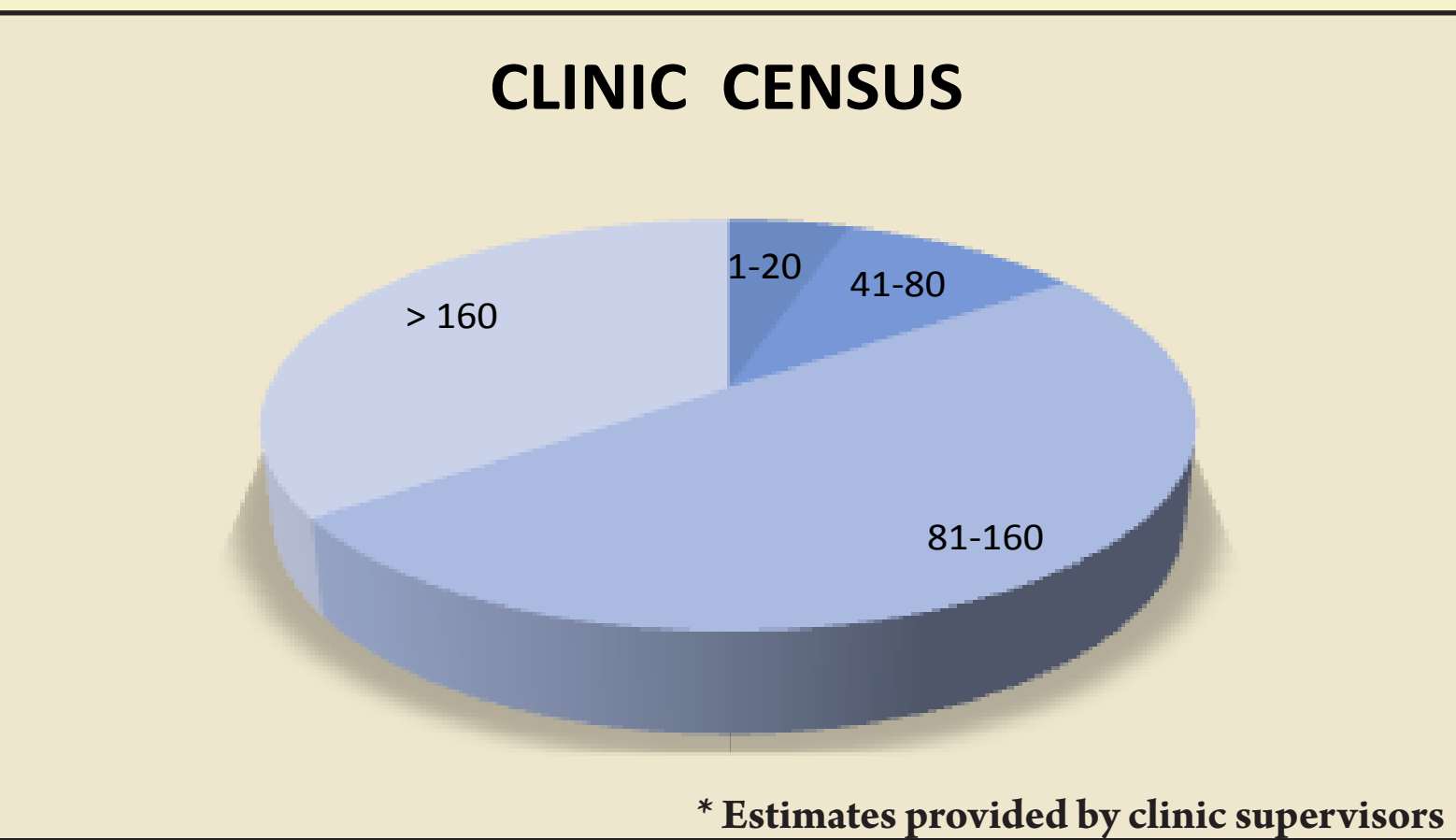
Baseline Team Meeting data (N=14) reveals the frequency with which teams endorsed each of the Performance Indicators and Clinical Subgroups during the first Team Meeting. Attendance was endorsed in the majority of first Team Meetings (64.29%). Therapeutic Alliance (6 cases documented) and Treatment Satisfaction (5 cases documented) were also frequently endorsed performance indicators during first 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 teams’ (N=14) endorsement among the various Clinical Subgroups during the first Team Meeting.

First Team Meetings (N=14)

	Clinical Subgroup	Frequency Endorsed
Race/Ethnicity	White	5 (35.7%)
	Hispanic	4 (28.6%)
	Black	3 (21.4%)
	Other	4 (28.5%)
Gender	Male	6 (42.9%)
	Female	6 (42.9%)
Length of Stay	< 1 Week	2 (14.3%)
	1-4 Weeks	1 (7.1%)
	1-3 Months	2 (14.3%)
	> 3 Months	2 (14.3%)

METHODS



STUDY PARTICIPANTS

Twenty outpatient, substance abuse treatment programs (non-methadone maintenance) in PA and NY participated in the PF Study. Programs rolled out over the course of two waves (**Wave 1, n=12; Wave 2, n=8**). Clinics in both waves were randomized to one of two study conditions: **Immediate Condition** (begin 12-week Intervention Phase) or **Delayed Condition** (twelve weeks of “treatment as usual” followed by 12-week Intervention Phase).

CONCLUSIONS

Clinicians’ Experience

- Insight to patients feelings of Therapeutic Alliance and Treatment Satisfaction
- Provides clinicians with a visual tool to evaluate patients’ feelings about group topics and themes
- Clinicians reported more open communication and constructive feedback in Team Meetings
- Clinicians believed that conveying a positive, optimistic attitude influenced patients’ attitudes

Patients’ Experience

- Empowers patients to actively participate in treatment
- Provides confidential means to communicate concerns to clinician

Strategies Implemented

- Monitor group communication and allot time for each patient to talk
- Design interactive group activities
- Honor patients graduating from group with “serenity rocks”
- Develop new groups in response to patient ratings displayed on Clinic Reports

Challenges to Study Implementation

- Clinicians overwhelmed with paperwork and large caseloads
- Some patients were resistant to completing surveys
- Patient population: Significant mental health problems, undisclosed learning disabilities, court and social service mandated clients, impulse control issues, distrust of “the system,” and transportation issues

Technology Issues

- Limited technological resources, computers, e-mail
- Varying levels of computer proficiency among supervisors and clinicians

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 domains that were significantly different between clinics appear to have an impact on study implementation across outpatient treatment programs. This is evident in the level that clinicians and supervisors embraced the PF system, the value placed on patients’ treatment experience, and therapeutic environment at the outpatient treatment program. Researchers hope to further explore the effect of clinic differences on the PF system implementation upon study completion.

PROGRAM CHARACTERISTICS

The majority of participating outpatient, substance abuse treatment programs were part of larger organization (n=18), not-for-profit organizations (n=15). Supervisors estimate that a large portion of patients at their programs **1) were currently under the criminal justice system** (6 supervisors estimated 51-75% of patients); **2) had significant mental health problems** (8 supervisors estimated 51-75% of patients), and 3) **were taking psychiatric medications** (8 supervisors estimated 11-25% of patients). However, **only six supervisors** (30%) reported their programs **offered secondary treatment services**, which were Mental Health Services in all cases.

Additional Facts/Figures:

20 Outpatient, substance abuse treatment programs in PA and NYC

128 Clinicians with an average caseload of **32.2 patients/clinician**

45% Publicly Funded (35% Private; 20% Both Public & Private)

Acknowledgements

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