Ohio | Department of Mental Health

Using Data in Person-Centered Treatment Planning

With Adult Mental Health Consumers

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EXECUTIVE SUMMARY

Background Information:

- Goal 2 of the President's New Freedom Commission on Mental Health is that mental health care is consumer and family driven. The Commission identified that individualized plans of care can facilitate meaningful partnerships with care providers that improve service coordination, promote informed choices directed at improving individual outcomes, and aid in achieving recovery.
- **Purpose:** This project has two purposes, first to examine program effectiveness around using data in treatment planning, and second to examine potential factors that may influence the treatment processes.
- **This report:** This report includes information on consumers' and case managers' scores over time. We hypothesized that by consumers and case managers participating in training, the treatment plan would be revised, consumers would be more satisfied with their treatment planning and be more empowered in choosing services and in their relationship with their case manager. We also asked about Organizational Readiness to Change, Agency Recovery Orientation, and Readiness for Mental Health Treatment; however we did not hypothesize any changes in these measures over time as a result of the intervention.
- **Future report:** A future report will examine the relationship between these concepts, for example, how Consumer Readiness for Mental Health Treatment and Service Empowerment are related, or how Organizational Readiness to Change is related to Agency Recovery Orientation.

Study Methods:

- **Sample:** Data were collected from 273 consumers (interviews) and 124 case managers (surveys) from four agencies. Most interviews were conducted by trained consumers or family members (10 of 17).
  - Consumers – More participants were female (64.3%) than male (35.7%). Most participants were Caucasian (62.9%; African American: 18.8%). Compared with statewide figures, we had a larger percentage of persons indicating Disabled, and diagnosed with Schizophrenia or Other Psychotic Disorders.
  - Case Managers – More participants were female (72.7%) than male (27.3%). Most participants were Caucasian (77.3%; African American or Other racial backgrounds: 22.7%). Three quarters had completed college. While less than one-third had limited mental health experience, more than one-third had a minimum of six years experience. Turnover and voluntary research participation resulted in a small sample size and limited testing change over time.
- **Wait-list control study design:** All participants were interviewed or surveyed at Time 1 (baseline). Case managers and consumers from two agencies (initial intervention group) participated in training programs after the first round of data collection. All participants were again interviewed or surveyed at Time 2. Case managers and consumers from the other two agencies (wait-list control group) participated in training programs after the second round of data collection. And again all participants were interviewed or surveyed at Time 3.
- **Training:** Consumers participated in the Peer-led "Climbing Into the Driver's Seat" program. Case managers participated in the "Using Adult Consumer Outcomes to Support Service and Recovery Planning" provided by the Cluster-based Planning Coordinating Center of Excellence (CBP CCOE). Training details are included in the full report.

- **Measures:** Both consumers and case managers responded about: Service Empowerment, Agency Recovery Orientation, Satisfaction with Treatment Planning, Using Data in Treatment Planning, and Knowledge of a consumer outcomes survey. Additionally, case managers also rated Organizational Culture/Readiness to Change and consumers also rated Readiness for Mental Health Treatment.

Results – Workshop Evaluations and Treatment Planning Revisions:

- **Workshop Evaluation:**
  - Consumers – Less than half (48.9%) completed at least one day of the training. However satisfaction was fairly high of those that participated, consumers liked the course and felt the course was valuable. Also, in general, consumers reported they were able to use the materials.
  - Case Managers – Across agencies they rated above the median on satisfaction, agreed that the training provided relevant information, reported they would use the ideas or materials in the future, and that their supervisor encouraged them to use the materials in their job. As a result of the training, some case managers reported they discuss results with the consumer before planning goals, some reported looking at strengths and weaknesses, others reported using consumers responses to probe for additional information, and others using scores to gauge progress.
- **Using Data in Treatment Planning:**
  - Consumers – The baseline mean for consumers' ratings of Using Data in Treatment Planning was between undecided and agree; this may indicate that some consumers do use Outcomes and some may need additional support or information to use Outcomes. Consumers in the second group (wait-list control) did show a small significant increase in using data after participating in the program (scores increase from Time 2 to Time 3).
  - Case managers – The baseline mean for case managers' ratings of Using Data in Treatment Planning was a little higher than their perceptions of Communicating about the Outcomes survey. This may indicate that case managers use the information on treatment planning but may not talk frequently about Outcomes with consumers. There was a small significant difference over time for those in the first group (initial intervention) which was delayed; case managers Communication and Using Data scores increased from Time 2 to Time 3.
- **Knowledge of Consumer Outcomes System:**
  - Consumers – Baseline means were close to agree, which may indicate that some consumers know about the Outcomes system. There was a small significant difference over time for consumers in the first group (initial intervention group) which was delayed; consumers' knowledge of things that are false on the Outcomes survey increased from Time 2 to Time 3.
  - Case managers – Baseline means, between uncertain and agree, may indicate that case managers have some knowledge but may not be aware of some of the functions or uses of the Outcomes system. There were no significant changes over time for this measure.

Results – Potential Intervention Effects:

- **Service Empowerment:**
  - Consumers – Consumers' baseline ratings of their relationship with their case manager and their involvement in decision-making indicate consumers feel they have an okay relationship and some involvement in decisions but there is room for improvement. There was a difference by gender, females felt more empowered in both their involvement in their service decisions and their relationship with their case manager than males. Contrary to our hypotheses, there were no significant changes over time.

- Case managers – At baseline case managers' rated their fostering personal relationships with consumers very high, which indicates that case managers believe they frequently encourage consumers, and talk with consumers about what is important to them. Case managers' baseline ratings of involving consumers in decisions and understanding consumers indicate that they had a positive perception of their understanding of consumers' needs and giving consumers' choice in their services and goals. Case managers also rated sharing information about themselves lowest at baseline and over time, which may indicate they believe sharing personal information (for example about their own limitations) with consumers is less relevant to their relationship with consumers. This may be a function of case managers' training about establishing boundaries, or due to agency policy.

  As hypothesized, there was a significant change over time for understanding consumers, the service relationship, and sharing self; scores for the first group (initial intervention) increased after participating in the training (from Time 1 to Time 2). Contrary to hypotheses, there were no significant differences over time for involvement in service decisions.

- **Satisfaction with Treatment Planning:**
  - At baseline, both consumers and case managers rated case managers' positive therapeutic orientation, and perception of consumers as individuals (normalization) very positively, between agree and strongly agree. These high means for both groups indicate that case managers foster, and consumers receive, mutual respect, listening and confidentiality, and an emphasis on the consumers as an individual rather than focusing on just the diagnosis.
  - At baseline, both consumers and case managers rated their perception of consumers' control over the treatment planning process a little lower, between uncertain and agree. This could indicate treatment planning may be focused less on consumers goals and more what case managers want such as keeping appointments and medication management.
  - Contrary to hypotheses, there were no significant increases over time for consumers or case managers' Satisfaction with Treatment Planning subscales after participating in the training program.
- **The Effects of Dose:** Dose is an estimate of intervention strength (see full report for how this was calculated). Correlations were computed between dose and change scores (T2 score minus T1 score, and T3 score minus T2 score). There were no statistically significant correlations between dose and consumers' ratings of Service Empowerment or Satisfaction with Treatment Planning. Getting 'more' of the intervention did not change whether the intervention was successful.

Results – Additional Mental Health Factors:

- **Agency Recovery Orientation:**
  - Choice was rated highest by both consumers and case managers; they generally believe that consumers have access to treatment records, are able to choose providers and treatments, choices are respected, and staff refrain from coercive measures to influence choice.
  - Individually-Tailored Services was rated second by consumers; they generally believe the agency serves individual consumers' needs, considers the persons cultural background, and strives to build people's community connections. Case managers rated the agency a little lower on tailoring individual services to consumers, their average was closer to uncertain.
  - Life Goals was rated second highest by case managers and third highest by consumers; they believe the agency encourages consumers to make life plans beyond symptom management, to try new things, to get involved in the community, and discuss their recovery plans such as employment or educational goals, not just their treatment.

- Diversity of Treatment Options was rated a little lower which may indicate that there are some efforts to discuss consumers spiritual and intimacy needs, emphasize recovery, and connect consumers with role models or mentors, but these efforts could potentially be increased.
- Agency and Community Involvement was rated lowest, meaning there is room for improvement involving consumers in operations such as sitting on agency advisory boards, program decisions, and facilitating community volunteering.

- **Organizational Readiness Factors:** Case managers rated these organizational factors fairly similar at baseline across all four agencies.
  - Motivational Readiness to Change – For Program Needs, at baseline case managers rated the need to develop effective group sessions highest and assessing consumer needs lowest. For Training Needs, case managers rated improving consumer thinking and problem solving as the highest training need followed by increasing consumer participation and improving behavioral management of consumers. The highest rated Pressures for Change were from external sources, such as funding and oversight organizations, and accrediting/licensing authorities.
  - Institutional Resources – At baseline, case managers said that they did have access to training and conferences, but may appreciate additional opportunities. Additionally, case managers believe that to effectively perform their jobs, there is a need for additional staff, skill training, and more time with consumers.
  - Staff Attributes – At baseline, case managers rated themselves as fairly adaptable and perceive themselves as somewhat able/willing to try new ideas and procedures within the agency. Case managers rated their efficacy highest of all the organizational factors, believing they have the necessary skills to be effective in their positions.
  - Organizational Climate – Case managers' ratings of the Organizational Mission and Goals, Staff Autonomy, and Openness to Change were higher than uncertain, but lower than agree, indicating case managers overall believe the Organizational Climate is okay but may have room for change.
  - Job Satisfaction – Research has shown that job satisfaction is an important predictor of employee retention, including in human services. Case managers rated this second highest of the organizational factors indicating they like their jobs, feel appreciated, and value their work.
  - In general, these organizational factors remained fairly consistent over time within agencies. There was a slight increase in staffing resources for both the initial intervention group and the wait-list control group after participating in the intervention. There was also an increase by the final data collection in staff efficacy, staff adaptability, ratings of the organizations mission and goals, and training utilization, but only for agencies in the initial intervention group.

- **Consumer Readiness for Mental Health Treatment:** Cluster Analysis identified two different patterns of scores, a Participation Group and a Precontemplation Group. Based on the pattern of scores on four subscales (Precontemplation, Contemplation, Action, and Maintenance), the Precontemplation Group may include persons thinking about their mental health treatment but not sure they are ready to be actively engaged in treatment. Based on their pattern of scores, the Participation Group may include consumers who are taking steps to make changes and are actively involved in their mental health treatment. However, more analyses need to be done to investigate the relevance of these groups.

Conclusions:

- There were fewer significant increases in scores of Service Empowerment, Satisfaction with Treatment Planning, and Using Data in Treatment Planning, after participating in the intervention than estimated. There are some possible explanations.

- First, the unique contribution of this intervention was that both consumers and case managers would participate in training and be empowered to work together. However, we only had about half of consumer participants attend training which may have affected the ability of the program to produce an effect.
- Second, the intervention was primarily designed to extend the use of data to treatment planning. However, treatment planning occurs within the context of the complex relationship between consumers and case managers. This relationship is influenced by multiple factors not included in this study.
- And third, because the intervention was focused specifically on using data in treatment planning the intervention may not have been sufficient to produce the expected changes in the measures used.
- Although the specificity of the intervention may have impacted our ability to detect a large impact, individual comments from consumers, case managers, and agency personnel indicated they valued the training programs.
- Accrediting organizations often require that agencies collect data; we suggest that the principles of this training program can be applied to any type of outcome measure that agencies find useful. Data can be used to identify strengths and weaknesses, help identify goals, help prompt further questions, and assist in justifying medical necessity. The utility depends on the agencies' goals and needs, and individual consumers' and case managers' background and training.
- We noticed that when both consumers and case managers rated variables, ratings were fairly similar. This appeared true for ratings of Service Empowerment, Satisfaction with Treatment Planning, and Agency Recovery Orientation. A future report will test whether these apparent similarities are in fact statistically similar.
    - Organizational factors have been found to influence consumer treatment engagement, counseling skills, rapport between counselors and consumers, consumer outcomes, program satisfaction, and use of program materials. In the current study, although case managers rated staffing resources lowest, they rated their efficacy highest. Additionally, case managers rated their job satisfaction second highest of all the organizational factors, signifying they like their jobs, feel appreciated, and value their work. This is particularly salient as higher job satisfaction has been associated with lower burnout and decreased turnover. These results indicate the need for further study on how these organizational factors are related to other variables studied in this project.
    - Both consumers and case managers rated Agency Recovery Orientation subscales similarly. Choice was rated highest, meaning agencies offer access to treatment records, allow consumers to choose providers and treatments, and that staff refrain from coercive measures to influence choice. Community Involvement was rated lowest indicating there is room for improvement involving consumers on agency advisory boards, program decisions, and facilitating community volunteering. Future work will look at how consumers' and case managers' ratings of the agency orientation toward recovery are associated with other variables included in this study
- **Next Steps:** The next step is to prepare small Bulletins to make the extensive material in this report more accessible for general audiences. We also have additional data analyses to conduct, comparing all case manager ratings and all consumer ratings (separately). For example, are consumers' ratings of Service Empowerment related to consumers' ratings of Agency Recovery Orientation? Additionally we will use any available existing data to provide a historical perspective.

Using Data in Person-Centered Treatment Planning With Adult Mental Health Consumers

REPORT OVERVIEW

This report presents background information related to the goals and purpose of this project. Also, a conceptual model is included, which shows the concepts that are studied and how the intervention theoretically impacts consumers' Service Empowerment, Satisfaction with Treatment Planning, and consumer outcomes.

In addition, the report includes a short summary of the intervention and training programs for case managers and consumers. The methods section includes the details of the evaluation study that was conducted to determine the effectiveness of the intervention. This section includes information on the study design, summary-level demographics about the consumers and case managers who participated, and a list of the measures in case manager surveys and consumer interviews. Results are presented by concept/measure. Finally, conclusions will be presented along with next steps for research.

The focus of this report is to evaluate the effectiveness of the intervention using consumers' and case managers' change scores over three data collection time points. A future report will test the proposed conceptual model, that is, it will examine the relationship between the concepts included in the study (e.g., How is Consumer Readiness for Mental Health Treatment related to consumers' sense of their Service Empowerment? Or how is Organizational Readiness to Change related to Agency Recovery Orientation?).

BACKGROUND INFORMATION

The New Freedom Commission (NFC) on Mental Health (2003) identified the need for improving access to quality care and services by fundamentally transforming the public mental health system. One of the foundational principles for transformation was that "services and treatments must be consumer and family centered, geared to give consumers' real and meaningful choices about treatment options and providers" (p. 5). The Commission further stated that consumers' needs should drive the care and services they receive. The NFC identified several barriers to a consumer-driven system; some of these included fragmented services, financing rules and regulations, and bureaucratic boundaries. Furthermore, the Commission stated that "individualized plans of care help overcome the problems that result from fragmented or uncoordinated services and systems" (p. 28).

In keeping with this perspective, the Commission recommended that individualized plans of care be developed for each adult with a serious mental illness and each child with a serious emotional disturbance (New Freedom Commission on Mental Health, 2003). The Commission asserted that individualized plans of care could facilitate meaningful partnerships with care providers that would improve service coordination, promote informed choices directed at improving individual outcomes, and aid in achieving recovery. SAMHSA (2005), in its report of the 2004 Consumer Direction Initiative Summit, emphasized the need for a shift in focus to more consumer-directed care. Historically, mental health systems have been dominated by the needs and concerns of providers, and individual service plans have been used to meet requirements and justify funding. Individual service (treatment) planning has not been a meaningful or person-centered process (Adams & Grieder, 2005; Linhorst, 2006; SAMHSA, 2005).

Linhorst (2006) specified several fundamental conditions for individuals with severe mental illness to participate meaningfully in treatment planning. First, the individual must be psychologically ready and have the motivation to participate. In addition, the relationship between the consumer and case manager must be one of mutual trust and respect that allows for honest discussion of the consumer's recovery goals. Also, consumers need to be able to exercise choice by selecting among an array of available services, supports, and providers that work best for them.

SAMHSA (2005) recommended that mental health professionals be re-educated about the shift to a shared partnership, which is necessary in a person-centered and recovery-oriented system. Linhorst (2006) also emphasized the importance of providing training designed to encourage staff to interact with consumers in a more egalitarian manner. Additionally, in their study on Service Empowerment and recovery outcomes, Crane-Ross and colleagues (Crane-Ross, Lutz, & Roth, 2006) suggested that consumers be provided opportunities to express their service needs and preferences. Furthermore, they advised providing tools to case managers that promote the relationship between the case manager and consumer, and consumer empowerment. They suggested that agencies provide structural tools and opportunities that "require more interaction between consumers and staff in areas such as treatment planning and goal setting" (Crane-Ross, Lutz, & Roth, 2006, p. 154).

In Ohio, consumers regularly complete the Ohio Mental Health Consumer Outcomes System survey (consumers rate their Quality of Life, Symptom Distress, and Empowerment; case managers rate Community Functioning; Ohio Department of Mental Health, 2005a). However, in 2007, focus groups of consumers revealed a wide variety of experience with the survey; some were unaware, while others had discussed the survey with their case managers or therapists. Studies have reported consumers wanted information on assessments they took and information about their illness and treatment options; additionally, providing information or feedback directly to consumers results in better outcomes (Allen, Montgomery, Tubman, Frazier, & Escovar, 2003; Harmon, Hawkins, Lambert, Slade, & Whipple, 2005; Hill & Laugharne, 2006; Wills, Holmes-Rovner, 2006). Although some literature suggests that while consumers want a partnership with their care provider in decision making, the degree of participation varies by the severity of illness or current symptoms, and by motivation to change (Adams & Drake, 2006; Hill & Laugharne, 2006). Additionally, some literature has also suggested that consumer engagement and the relationship between the consumer and case manager is fostered by interactive and personal feedback (Adams & Grieder, 2005; DiClemente, Marinilli, Singh, & Bellino, 2001). Furthermore, accreditation standards encourage agencies to use data for outcomes assessment, performance improvement such as service effectiveness or access, and to assist in management decision making (CARF International, 2009). This study offers training for consumers and case managers about how to use results from an outcomes survey in their treatment planning.

The Current Project

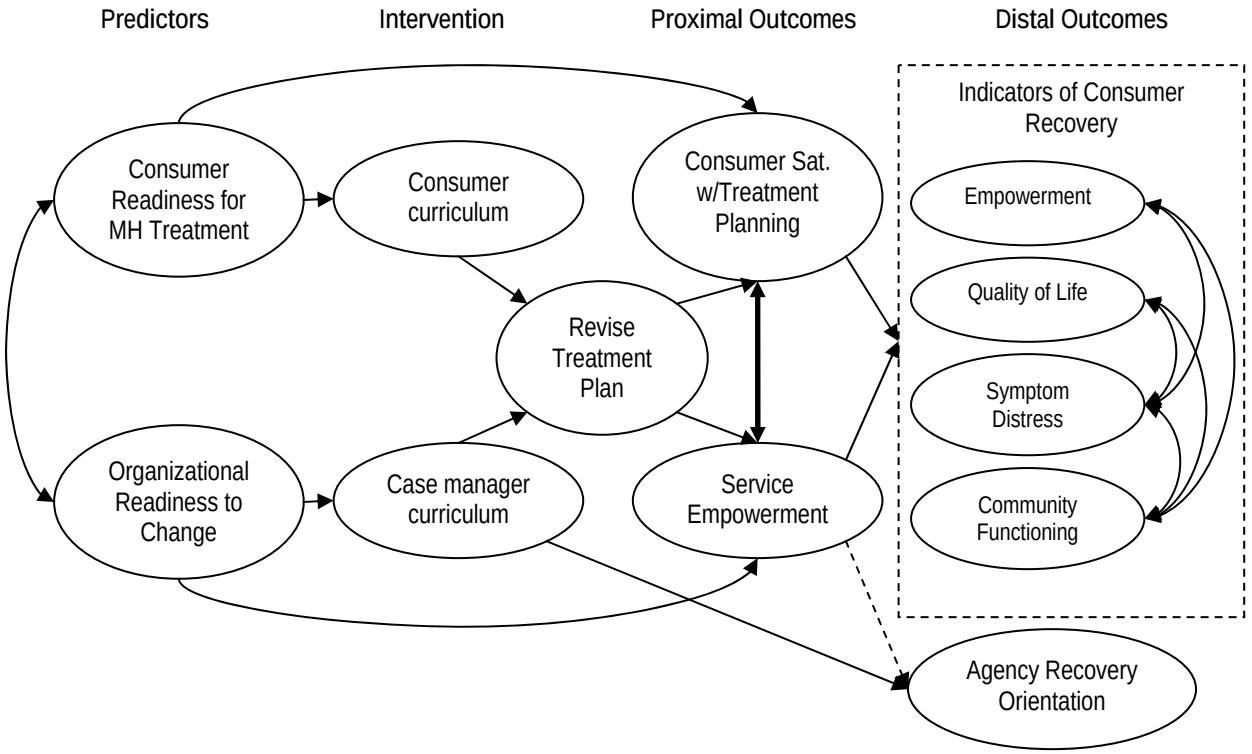
This project had two purposes, first to examine program effectiveness around using data in treatment planning, and second to examine potential factors that may influence the treatment processes.

A program for adult consumers and a program for case managers aimed to make treatment planning a more person-centered, collaborative, empowering and recovery-oriented process. Consumers, case managers (and supervisors) attended training sessions on how to communicate with each other about Consumer Outcomes data (see the following section, Consumer and Case Manager Training Programs, for a description of each of these curricula). We hypothesized that by consumers and case managers participating in training programs, the treatment plan would be revised, that consumers could be more satisfied with their treatment planning experience and be more empowered in their choices and in their relationship with their case manager (see Figure 1 for the conceptual model).

Moreover, additional literature has suggested additional factors that may influence the treatment process, such as organizational factors and readiness to change, consumer readiness for treatment, and agency orientation toward recovery. These factors may influence satisfaction with services, consumer/case-manager rapport and implementation of new programs (Adams & Grieder, 2005; Bellis, 1993; Flinn, 2004; Greener, Joe, Simpson, Rowan-Szal, & Lehman, 2007; Heesch, Velasquez, & von Sternberg, 2004; Hilburger & Lam, 1999; Lehman, Greener and Simpson, 2002; Linhorst, 2006; O'Connell, Tondora, Croog, Evans, & Davidson, 2005; Simpson, 2002; Simpson, Joe, & Rowan-Szal, 2007). We have also included these additional factors in the conceptual model; however, we did not specifically hypothesize any changes in

Organizational Culture/Readiness to Change, Agency Recovery Orientation, and Readiness for Mental Health Treatment as a result of participating in the training programs (see Figure 1).

Figure 1. Conceptual Model



CONSUMER AND CASE MANAGER TRAINING PROGRAMS

Descriptions of the consumer training program (Climbing Into the Driver's Seat) and the case manager training program (Using Adult Consumer Outcomes to Support Service and Recovery Planning) are summarized in this section. Ideally, after both consumers and case managers attended training, their learning would be used in the subsequent treatment planning process to facilitate a more collaborative and empowering experience for consumers. While the content of these programs are specific to the Ohio Mental Health Consumer Outcomes System survey[†], the principles included are potentially transferable to other outcomes systems.

Climbing Into the Driver's Seat

Climbing Into the Driver's Seat (CDS) was the training program for consumers. CDS was a peer-led program that was developed as a tool for consumers to use the Outcomes Survey in their recovery plan. This curriculum was taught over two days and included the following 10 lessons.

1. Introduction and History of the Ohio Mental Health Consumer Outcomes System
   - What a survey does and does not do (e.g., "It answers the basic question how am I doing? and, "It does not give syndrome names or labels.").
   - Tree of Recovery – depicts how choices, self-determination and owning the recovery plan foster quality of life, safety and health, decreased symptom distress, and role performance (the Outcomes System domains).
2. Using the Survey
   - What the survey asks about (e.g. emotional behaviors, work, meaningful daily activity, living situation, control over decisions)
3. Taking the Survey
   - Scoring
   - Using an individual's scores, interpreting information, comparing previous scores
   - Recipe for success – What ingredients (strengths, weaknesses, skills, knowledge) can we use to make a good recovery plan?
4. Finding Strengths
   - Survey results produce data tailored to each individual
   - Making outcomes work for you – the survey can help focus on individual goals
   - Recovery plan itinerary – what the individual wants to accomplish
5. Delving into the Domains
   - An individual's recovery tree – applying the individual's wants to the Outcomes domains
6. Safety and Health
   - The Recovery Plan is a contract; consumers are responsible for certain things, as are case managers. Consumers, case managers, and clinicians together decide specific needs, put goals in steps and measurable terms, and compare strengths and weaknesses to achieve recovery goals.
   - Personal advantages and risks, self-knowledge is the key
   - Which answers are strengths (mostly satisfied or very pleased responses) or red flags (mostly dissatisfied or terrible responses)? If you have identified a problem, what would you like to do about it?

[†] In the Fall of 2009, the Ohio Department of Mental Health discontinued statewide collection and reporting of the Ohio Mental Health Consumer Outcomes System surveys in order to reduce administrative burden on provider agencies. Agencies were encouraged to select outcomes measures that fit their national accreditation needs.

7. Quality of Life
   - Which answers are strengths (mostly satisfied or very pleased responses) or red flags (mostly dissatisfied or terrible responses)? If you have identified a problem, what would you like to do about it?
   - Recovery discussion (e.g., Recovery can occur with or without professional intervention, Setbacks do not mean that previous growth had no value; setbacks, although frustrating may provide the basis for the process of recovering.).
8. Empowerment
   - Which answers are strengths (strongly agree responses) or red flags (strongly disagree responses)? If you have identified a problem, what would you like to do about it?
   - The role of an advocate; using data for advocacy
9. Symptom Distress
   - Which answers are strengths or red flags? If you have identified a problem, what would you like to do about it?
10. Post-test and Graduation – "Knowing these things about ourselves puts us on the road to a better life; doing something about them puts us in the driver's seat."

Using Adult Consumer Outcomes to Support Service and Recovery Planning

The training program for case managers was "Using Adult Consumer Outcomes to Support Service and Recovery Planning." The training was provided by the Cluster-based Planning Coordinating Center of Excellence (CBP CCOE) in two, half-day sessions. The training included:

- A brief overview of the history of the ODMH Outcomes System, how it was developed, the stakeholders involved in the development. ODMH certification standards require that the data are reported to ODMH, used in service and recovery planning, and used in continuous quality improvement efforts.
- A brief overview of recovery concepts and models, focusing on Ohio's 12 guiding principles for Emerging Best Practices in Recovery.
- A review of the Consumer Outcomes Survey.
- A 4-step service and recovery planning process:
  - Step 1: Getting the Pictures
    - What is the consumer's bio-psycho-social history?
    - What is the consumer's strengths, problems, life situations, and social/cultural environments?
    - What is the consumer's history of symptoms, mental health treatment, and social support?
    - What patterns exist in these contexts?
    - How does an individual consumer's experience fit with other consumers' experiences of which you are aware?
  - Step 2: Mutual Understanding of Outcomes Status
    - Cooperatively share the meaning and importance of the information obtained in Step 1.
    - Discuss with consumers their responses from the Outcomes Survey, particularly the Strengths and Red Flags Reports; ask about why they answered the question that way and how they felt.

- Step 3: Mutual Understanding of the Consumer's Life Goals and Vision
  - Ask about the consumer's past life (before the mental illness), what were his or her goals and desires? Does the consumer still desire these?
  - How does the consumer's present status (e.g. symptom distress or sense of empowerment) support or present challenges to his or her hopes?
  - Prioritize the Outcomes, feelings, or functioning that the consumer would like to see changed.
- Step 4: Shared Service/Recovery Plan
  - Identify a limited number of activities to address; these should be short-term goals that will help the consumer reach milestones (e.g., if the consumer wanted to go to collect, focus on what would be necessary for the consumer to first get a GED).
  - The Outcomes Survey can be used to justify the medical necessity

- Case managers completed an exercise where they were provided with one of two sample consumer histories; they added additional hypothetical characteristics to the person, and completed a Consumer Outcomes Survey as if they were that client.
  - Case managers reviewed their additional consumer characteristics and how they completed the Outcomes Survey. Group discussion occurred about how a consumer's bio-psychosocial history may affect his or her responses on the Outcomes Survey.
  - Additional discussion occurred about how the survey answers can be used as an ongoing tool for case managers to dialog with consumers (such as picking an individual item to revisit regularly with the consumer).
  - At the end of day-1 training, the facilitator asked the case managers to practice or use what they have learned with one consumer so that they can bring this experience to the second part of the training.
- At the beginning of the second training day, day one activities were reviewed and case managers reported about their practice experiences to the group.
- The exercise from day one was repeated with two new case studies to help case managers understand what it is like for a consumer to complete the Outcomes Survey. Again, group discussion occurred.
- The training facilitator selected one of the two new case studies and walked through with the group how the 4-Step Recovery Planning process can be applied (using the case managers' additional historical events and the hypothetical Outcomes Survey responses).
- In a second exercise, the case managers completed a 4-Step Recovery Planning process with the other case study. Afterwards group discussion about the activity occurred.

Treatment Planning Process

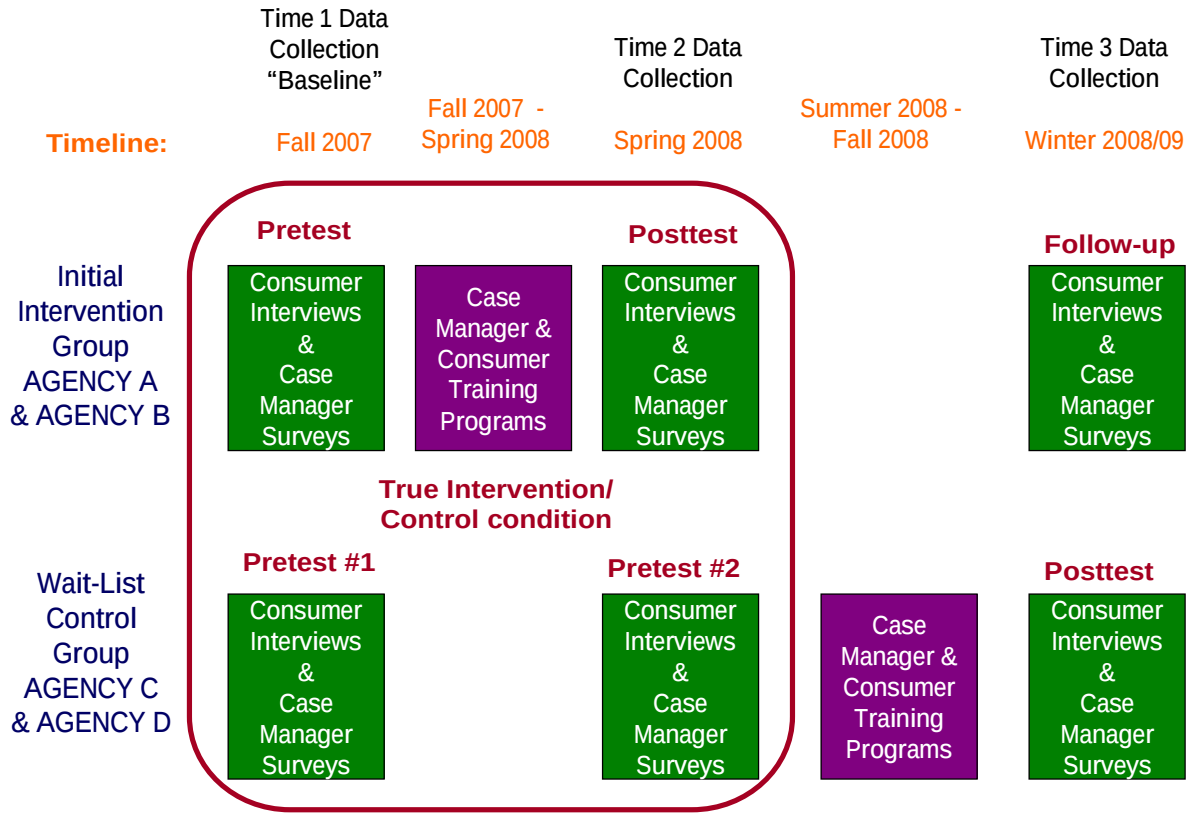
Case managers and consumers were encouraged to use the tools provided in the training programs during their next Treatment Planning session, or the next time they discussed the consumer's goals and objectives. In this study, however, these sessions and use of tools were not enforced or monitored. During the data collection period after the training, case managers and consumers answered questions about the usefulness of the training and any barriers that prevented them from using the information in the planning session.

METHODS

The Evaluation Design

The Evaluation Design is a wait-list-control design (see Figure 2); four agencies participated in the evaluation study. Baseline data collection occurred in each agency for all consumers and case managers in the fall of 2007. Consumers and case managers at two agencies (initial intervention group) were trained in winter, 2007. The second data collection occurred in spring 2008. Training for consumers and case managers in the second two agencies (wait-list control group) occurred in summer 2008, and the final data were collected in winter 2008.

Figure 2. Evaluation Design



Procedures

Agency Selection. In summer 2007, Ohio had 315 certified entities that provided services to adult consumers in local communities. Agencies were selected based on several criteria:

1. At least a 50% return rate on Outcomes for adult consumers;
2. Sufficient sample size: agencies needed at least 300 adult consumers receiving Community Psychiatric Supportive Treatment (CPST; a.k.a. case management) in 2006;
3. Not participating in other training programs that provided similar content to the curriculum taught in the current study;
4. At least 15 case managers; and
5. Financial stability (obtained via feedback from personnel at ODMH).

Fourteen (14) agencies remained eligible for selection and were ranked based on geographical classification (trans metro, metro urban, and/or urban populations) and racial makeup. Agencies were contacted until four agencies agreed to participate (six agencies were contacted, two declined).

Recruitment and Consent. Project staff distributed information about the study to both consumers and case managers at an Outcomes Fair held at each participating agency and collected contact information for interested participants. Agency staff also supplied program and study information to consumers and case managers unable to attend the Outcomes Fair. Contact information was obtained from 383 interested consumers. Project staff at ODMH subsequently contacted consumers to review study protocols and obtain verbal consent. Of the initial 383 consumers, 51 were unreachable, 30 indicated they were no longer interested, 8 were no longer eligible (no longer receiving case management), and an additional 14 consumers were enrolled but did not complete the first interview, resulting in a final sample of 272 consumers.

Consumers were interviewed in person by field interviewers (10 of 16 interviewers were consumers or family members of consumers; all others had experience working with persons with mental illness). Case managers completed surveys. Consumers gave official consent to participate at the time of their first interview. Case managers were given survey packets distributed at agency staff meetings where the principal investigator reviewed the study details and consent; case managers returned their consent forms with their first completed survey.

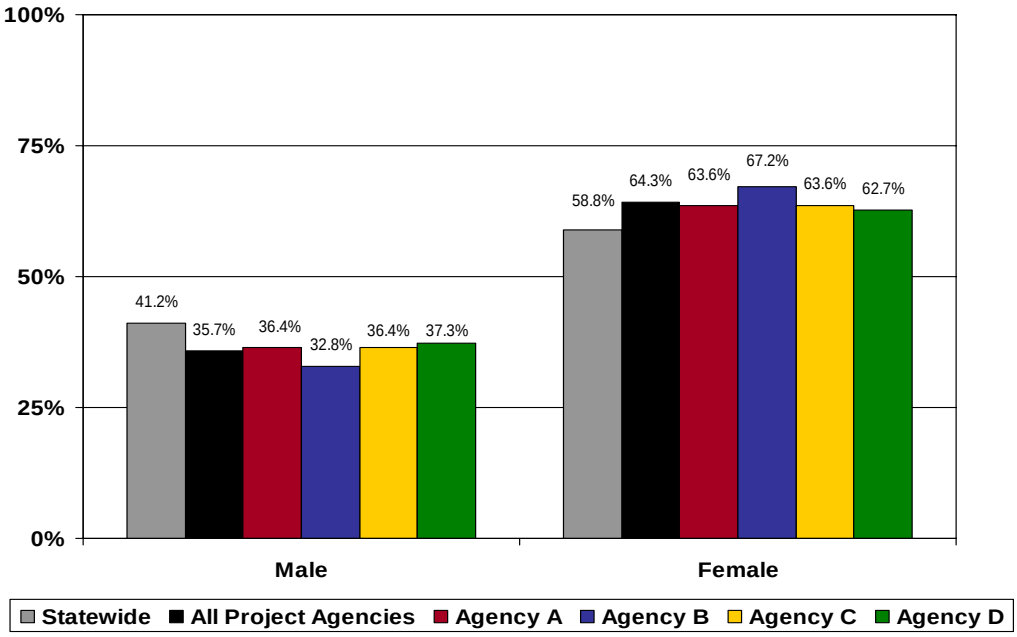
Incentives. Consumers and case managers were provided a $20 honorarium for each of the three data collection time periods in which they participated. Consumers and case managers also received a free t-shirt when they completed the training course. Additionally, agencies received compensation for supervisors' and case managers' training time. Continuing education credits were provided to eligible case managers and supervisors for their participation in the training.

Sample (Consumer Participants)

Data were collected from 272 consumers in four mental health agencies in Ohio. A similar number of consumer participants were recruited at each agency (71 persons in Agency A; 62 persons in Agency B; 79 persons in Agency C; and 60 persons in Agency D). Demographic information (e.g., gender, race, age, marital status, education, living situation, employment, and primary diagnosis) is reported statewide[‡], total for all project agencies combined, and by agency.

Gender. A larger percentage of females (64.3%) than males (35.7%) participated in this project. Statewide figures also indicate that a larger percentage of females than males are served (see Figure 3). There were no significant differences (see Statistical Significance in the Glossary) between the agencies participating by gender (see Table 1A in Appendix A on page 104); this means that agencies were statistically similar in their percentages of males and females participating in the project.

Figure 3. Percentage of Consumer Participants by Gender

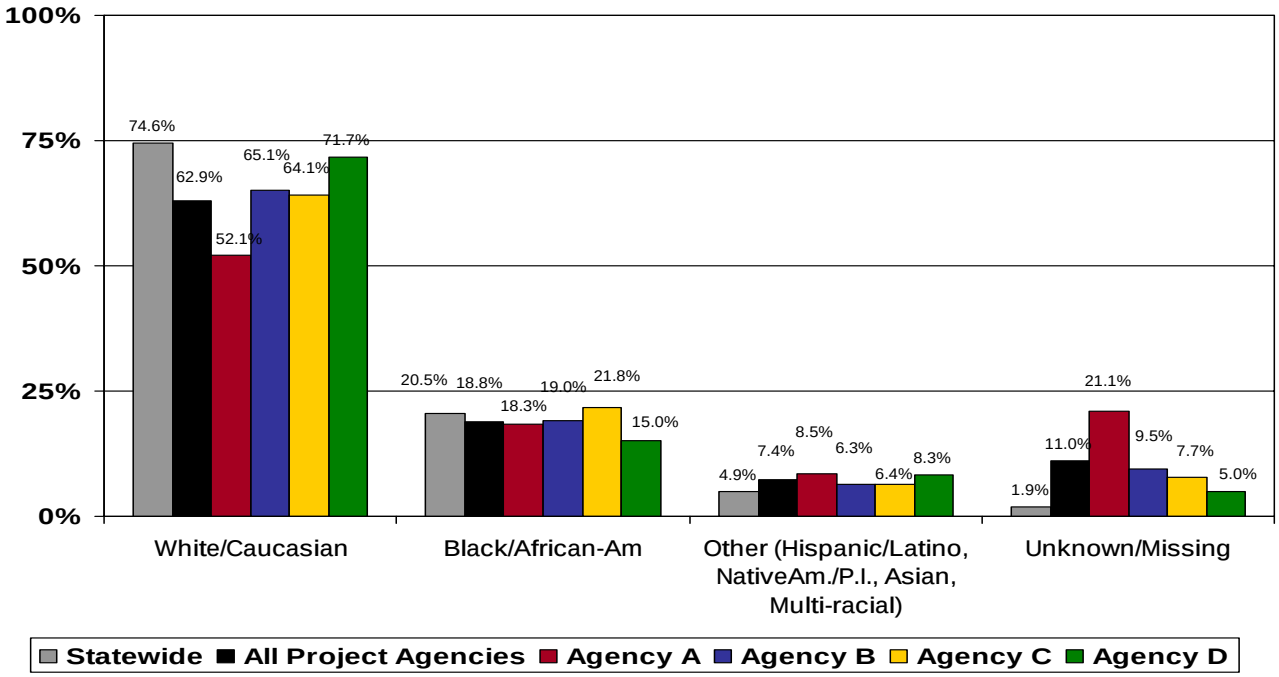


Race. The majority of the consumers were White/Caucasian (62.9%). Almost one-fifth of the sample was Black/African-American (18.8%); a small percentage (7.4%) identified other race groups (Hispanic, Native American or Pacific Islander, Asian, and Multi-racial). About one-tenth of the sample did not respond to the race question. Compared with statewide percentages, the percentage of White/Caucasian participants in the project sample was slightly smaller and the percentage of participants with unreported race was slightly higher (see Figure 4). There were no significant differences between the agencies participating by race (see Table 1A in Appendix A page 104; see Statistical Significance in the Glossary). This means that even though there may be

[‡] Numbers and percentages of all statewide data were obtained from the Ohio Mental Health Consumer Outcomes System Data Mart.

differences (e.g., Agency A has a lower percentage of Caucasian participants and a higher percentage of participants with other or unknown race), statistically, the difference in percentages of participants is too small to be meaningful.

Figure 4. Percentage of Consumer Participants by Race



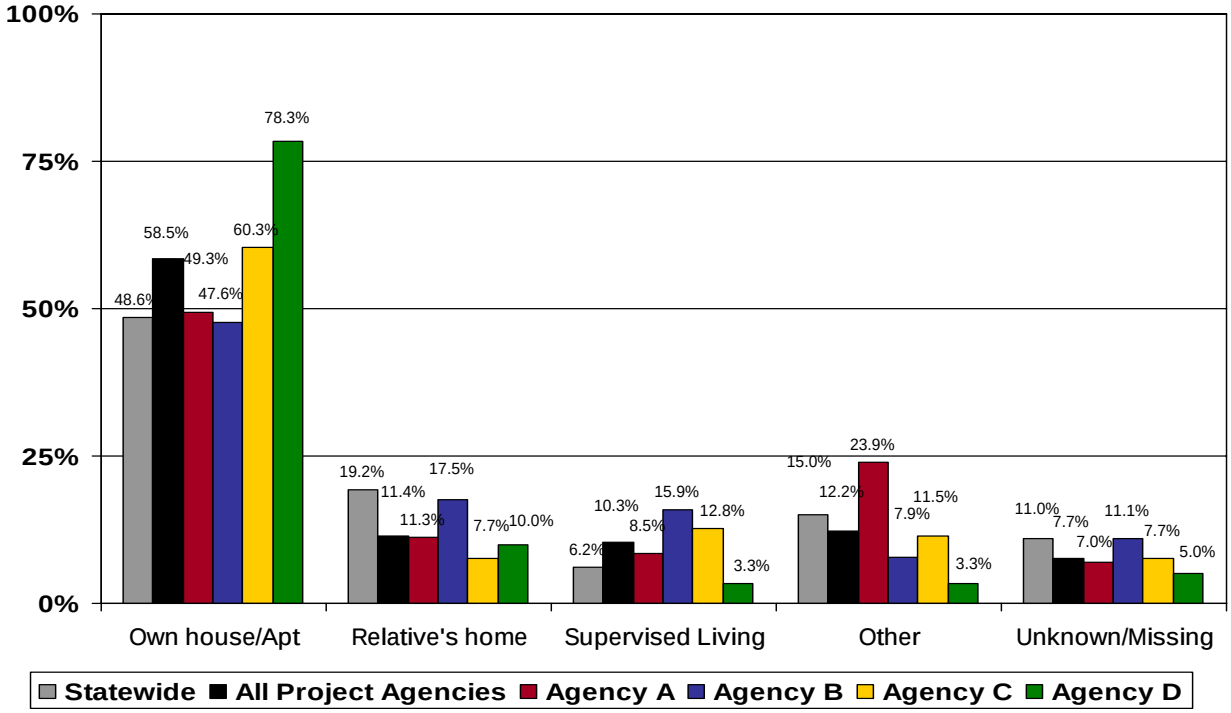
Age. Only a small percentage of consumers participating in this project were under age 25 (7%). About one-third of the consumers were between the ages of 25 and 44 (34.2%). Over half of the consumers were 45 years or older (45-54 years: 37.9%, 55-64 years: 15.1%, 65+ years: 2.9%). Compared with statewide percentages, the consumers participating in this sample were slightly older. There were no significant differences between the agencies participating by age group (see Table 1A in Appendix A page 104).

Marital Status. Over one-third of the consumers participating in this project have never been married. A small percentage of consumers responded they were currently married (8.8%), while the majority of consumers were separated or divorced (41.5%). Compared with statewide percentages, this project had a smaller percentage of married consumers and a larger percentage of consumers who were separated or divorced. There were no significant differences between any of the agencies participating in the project by marital status (see Table 1A in Appendix A page 104).

Education. Of the consumers participating in this project, about one-quarter had not completed high school or earned a GED. About one-third of the consumers had completed high school or earned a GED, and about one-quarter had completed education beyond high school; only a small percentage had earned a college degree (6.3%). The educational levels completed by the consumers in the current sample were similar to statewide percentages. There were no significant differences between any of the agencies participating in the project by education level (see Table 1B in Appendix A page 105).

Living Situation. The majority of consumers participating in this project reported living in their own home or apartment (58.5%). Almost one-quarter of consumers reported living with relatives (11.4%) or living in a supervised setting (10.3%). Compared with statewide percentages, a higher percentage of consumers reported living in their own home or apartment, a higher percentage living in a supervised setting, and a lower percentage living with relatives (see Figure 5). There were significant differences between the agencies by living situation. Agency D had a much higher percentage of consumers living in their own home or apartment than Agency A or Agency B (see Table 1B in Appendix A page 105). The sample is somewhat different than statewide reports possibly due to Agencies C and D having housing programs.

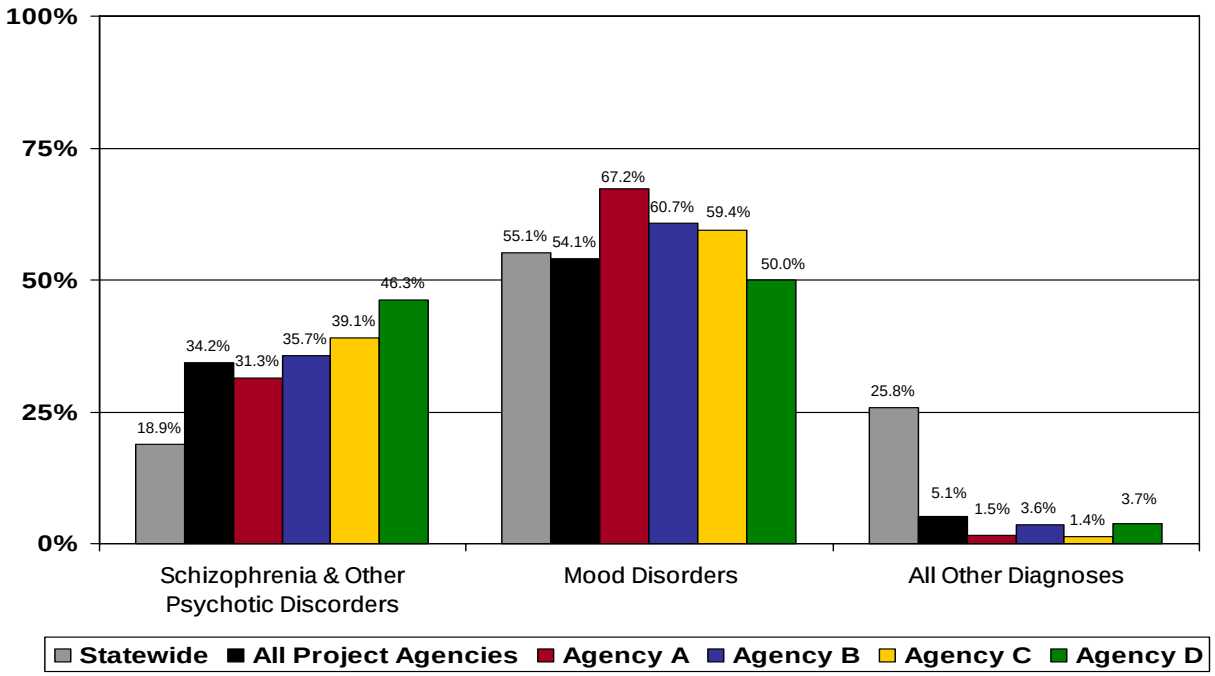
Figure 5. Percentage of Consumer Participants by Living Situation



Employment Status. Over three-quarters of consumers indicated they were either disabled (51.5%) or unemployed (27.2%). A small percentage indicated they were employed full or part-time (6.9%). A few consumers (14.4%) reported another employment status (e.g., sheltered employment, homemaker, student, or inmate) or did not respond to the question. Compared with statewide percentages, a larger percentage of consumers in this sample reported that they were disabled. We may have had higher disabled percentage in our study because we recruited participants during the day. Some of the agencies have extended hours, some do not. It may have been due to who was available to participate. Additionally, disabled persons may be on a limited income, and so the $20 incentive may have been an attractive reward to participate, more so than for someone who is employed. Additionally, we had a higher percentage of persons with schizophrenic or other psychotic disorders which may be one explanation of why a higher percentage of our study population was disabled. There were no significant differences between any of the agencies participating in the project by employment status (see Table 1C in Appendix A page 106).

Primary Diagnosis. The primary diagnoses reported for the majority of consumers participating in this project were Mood Disorders (Depressive, Bipolar, or other Mood Disorders: 54.1%). Over one-third of the consumers had a primary diagnosis of Schizophrenia or Other Psychotic Disorders. Compared with statewide percentages, a higher percentage of consumers participating in this project were diagnosed with Schizophrenia or Other Psychotic Disorders (see Figure 6). There were no significant differences between any of the agencies participating in the project by primary diagnosis (see Table 1C in Appendix A page 106).

Figure 6. Percentage of Consumer Participants by Primary Diagnosis



Participation in Recovery Programs. Consumers also indicated if they participated in any special services or recovery-focused programs. Over half (56.0%) indicated they have attended a special recovery program. The most common programs specified were:

- 14.5% had completed a WRAP plan
- 12.0% participated in alcohol or drug related or dual diagnosis groups
- 8.7% mentioned they attended Partial Hospitalization
- 6.5% reported attending a counseling or therapy group
- 2.9% mentioned they participated in a recovery group
- 2.2% of participants mentioned utilizing Consumer Operated Services or Drop-In Centers
- 1.5% of participants mentioned Bridges
- Other activities or groups mentioned included, Anger Management classes, assertiveness training, crisis training, employment programs, exercise programs, medication programs, parenting groups, peer support training, recreational therapy, social activities to support recovery, Steps training, and volunteer or other community social activities (e.g., church).

Sample (Case Manager Participants)

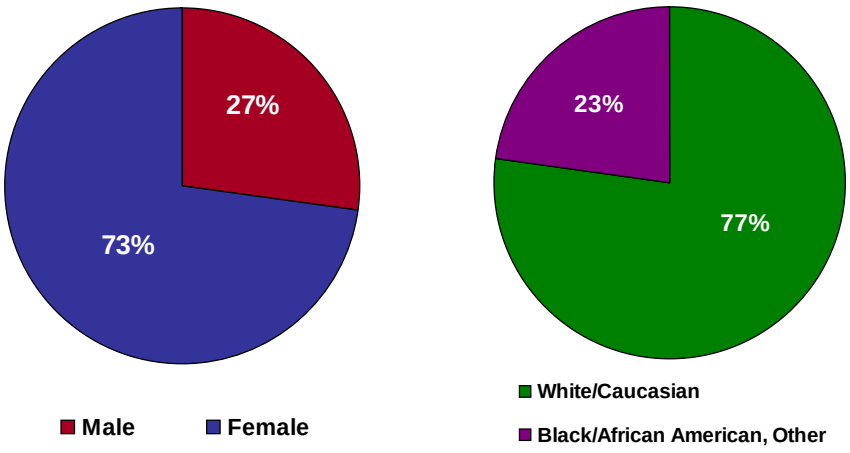
Data were collected from 101 case managers in four mental health agencies in Ohio over three data collections. Case manager training attendance rates were high as agencies strongly encouraged staff participation. However, survey completion rates were lower, impacted by staff turnover, and because research participation was voluntary. Consequently, the total sample size may be misleading, given that some case managers left and were replaced; 44 case managers completed one survey, 30 completed two surveys, and only 27 completed surveys for all three data collections.

	Time 1			Time 2			Time 3		
	Completed n	Total N	Response Rate	Completed n	Total N	Response Rate	Completed n	Total N	Response Rate
Agency A	31	38	81.6	24	36	66.7	21	37	56.8
Agency B	10	10	100.0	6	9	66.7	6	7	85.7
Agency C	16	28	57.1	22	26	84.6	18	24	75.0
Agency D	9	12	75.0	11	12	91.7	11	12	91.7
Total	66	88	75.0	63	83	75.9	56	80	70.0

Gender. Of the case managers who participated at baseline, a larger percentage was female (72.7%). Chi-square analyses indicated that there were no significant differences between the agencies in percentages of male and female case managers (see Figure 7; see Table 2A in Appendix A page 107).

Race. The majority of the case managers who participated were White/Caucasian (77.3%). Because the number of case managers surveyed was small, the remaining race categories were combined. Thus 22.7% of responding case managers were African American or another race (e.g., Native American/Pacific Islander, Hispanic/Latino, Asian, Other, or Unknown). There were no significant differences between the participating agencies by case managers' race (see Figure 7; see Table 2A in Appendix A page 107).

Figure 7. Percentage of Case Manager Participants by Gender and Race



Age. Case managers' ages varied a lot. About one-third (36.4%) was under age 30, a little over half of the sample (53.0%) was between the ages of 31 and 50, and a small percentage (10.6%) was over 51 years of age. There were no significant differences between the agencies by case managers' age groups (see Table 2A in Appendix A page 107).

Education Level. The majority of case managers had a 4-year college degree or some post-college education (77.3%). There were no significant differences between agencies in case managers' reports of their education level (see Figure 8, and see Table 2A in Appendix A page 107).

Discipline. A little over one-quarter of case managers reported they had studied social work, and almost one-third reported studying psychology or sociology. There were no significant differences between agencies in case managers' report of their educational discipline (see Table 2B in Appendix A page 108). Some case managers reported that they had a professional license (17.2%).

Length of time in the Mental Health System. Figure 9 presents case managers' years of experience in the mental health system (see also Table 2B in Appendix A page 108). Length of time employed at the current agency and length of time employed in mental health are also included in Table 2B. Over one-quarter (28.8%) indicated they had been a case manager less than one year. And over one-third of case managers (39.4%) responded they had been case managers for more than six years.

Figure 8. Case Manager Education Level at Baseline

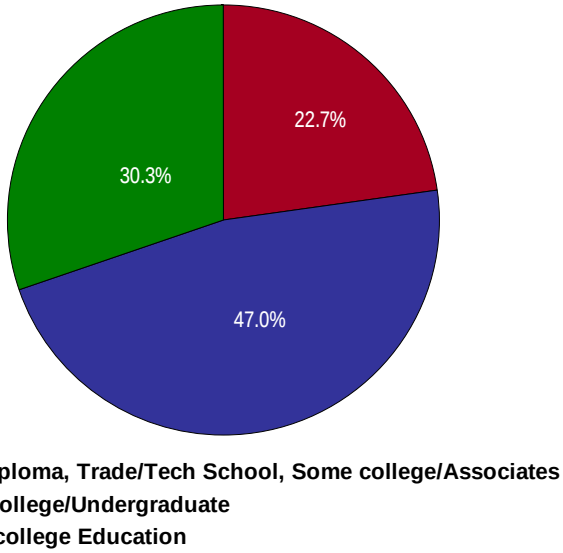
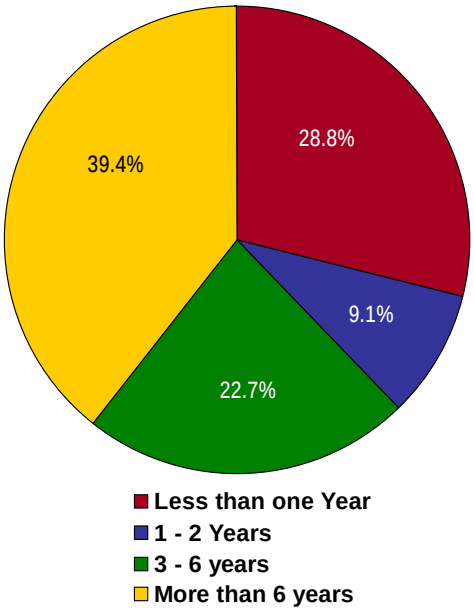
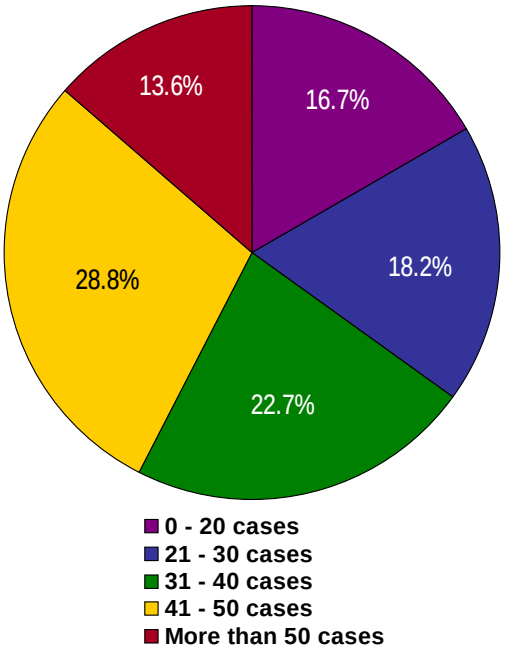


Figure 9. Case Manager's Experience at Baseline



Caseload. Figure 10 presents case managers responses of their active caseload size (see also Table 2B in Appendix A page 108). A few case managers reported small caseloads (less than 20, 16.7%). Over one-third reported medium-size caseloads (21 – 40, 40.9%). And almost one-half reported large caseloads of more than 40 consumers (42.4%).

Figure 10. Case Manager's Caseload Size at Baseline



Measures

The following section presents the questions that were included in the consumer interview and the case manager survey. Please see Reliability in the Glossary to learn more about alpha (α) statistics for the scaled questions.

Demographics. The consumer demographic variables (gender, age, race, education, marital status, living situation, employment status, and mental illness diagnosis) were obtained from the Ohio Mental Health Consumer Outcomes System (Ohio Department of Mental Health, 2005a; Ohio Mental Health Outcomes Task Force, 2001). Case managers responded to survey questions about their gender, race, age, education level, college discipline, licensure, and length in the mental health system.

Service Empowerment. The consumers rated their Service Empowerment using 35 items developed for the Longitudinal Consumer Outcomes Study (Crane-Ross, Lutz, & Roth, 2006). The consumers responded to 11 items about their general Contact with the Mental Health Agency and their perceptions of Say over Services (i.e., how much say consumers have in the services they receive); responses to these items ranged from qualitative to dichotomous to categorical. Additionally Service Empowerment included two subscales: Service Decisions and Service Relationships. Service Decisions – the consumers rated their perceptions of involvement in and control over decisions about treatment options, such as services and medications (5 items). The consumers rated these responses on a 5-point scale; responses ranged from 0 (none) to 4 (completely). Service Relationships – The consumers rated the amount of acceptance, support, respect, and reciprocity in their relationships with their case managers (19 items). The consumers rated these items on two 5-point scales: agreement responses ranged from 0 (not at all) to 4 (extremely); frequency responses ranged from 0 (never) to 4 (always). For the current study, reliabilities were good at baseline, Time 2, and Time 3 (Service Decisions reliability range: $\alpha = .72$ to $\alpha = .76$, and Service Relationship reliability range: $\alpha = .93$ to $\alpha = .95$; see Table 3A in Appendix A page 109 for reliabilities by time point and subscale). See Appendix B page 143 for a list of items within subscales.

Case managers rated their general orientation to empowering consumers' service decisions, and their perceptions of the general case manager–consumer relationship using 14 items adapted from Crane-Ross and colleagues (Crane-Ross, Lutz, & Roth, 2006). The original items asked case managers to rate their relationships with individual consumers; the current iteration asked case managers to respond about their overall approach to case management and Service Empowerment (e.g., an original LCO item was changed from, "How much does this person's treatment plan fit what he/she wants?" to, "How much do treatment plans fit what the consumers want?"). The case managers' responses were on two 5-point scales: agreement responses ranged from 1 (none) to 5 (completely); frequency responses ranged from 1 (never) to 5 (always). Because item wording changed and case manager may have answered these questions differently than the LCO study, we conducted a Factor Analysis (please see Factor Analysis in the Glossary) to determine which items were similar. The Factor Analysis revealed four factors. The first factor was Service Decisions (4 items, α [baseline] = .73); a sample item is, "How much do treatment plans fit with what the consumers want?" The second factor we called Understanding Consumers (2 items, α [baseline] = .44); a sample item is, "How much do you really understand what consumers need." The third

factor we called Service Relationship (6 items, α [baseline] = .75); a sample item is, "How often do you consider what consumers say to be important or valid?" And the fourth factor we called Share Self (2 items, α [baseline] = .56); a sample item is, "How often do you share personal information about your life with consumers?" Reliabilities were adequate for Service Decisions at Time 1, and for Service Relationship at all time points; reliabilities were not adequate for Service Decisions at Time 2 and Time 3, or for Understanding Consumers and Share Self. Unreliable subscales should be interpreted cautiously (see Table 3A in Appendix A page 109 for individual subscale reliabilities). See Appendix B page 144 for a list of items within subscales.

Readiness for Mental Health Treatment. Mental health consumers rated their Readiness for Mental Health Treatment using a measure that includes items from the URICA-A (Heesch, Velasquez, & von Sternberg, 2004). The 12-item instrument includes four subscales: Precontemplation, Contemplation, Action, and Maintenance. The respondents indicated their agreement on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree); baseline reliabilities ranged from α = .54 to α = .84. For the current study, reliabilities at baseline were adequate for Contemplation (α = .72) and Action (α = .64), but were not adequate for Precontemplation (α = .46) or Maintenance (α = .40). Although, at Time Two and Time 3 reliability did improve for Precontemplation (α [Time 2] = .57 α [Time 3] = .63); reliability did not improve over time for the Maintenance subscale. Unreliable subscales should be interpreted cautiously (see Table 3A in Appendix A page 109 for individual subscale reliabilities). See Appendix B page 145 for a list of all the items within the subscales.

Organizational Readiness to Change. The Organizational Readiness to Change measure included 66 items (subscales are listed within domains), on Motivational Readiness (Program Needs, Training Needs, and Pressures for Change), Institutional Resources (Staffing and Training), Staff Attributes (Efficacy and Adaptability), Organizational Climate (Mission, Autonomy, and Change), Training Utilization, and Job Satisfaction (Lehman, Greener, & Simpson, 2002; Texas Christian University Institute of Behavioral Research, 2002). The case managers responded on two 5-point scales: agreement responses ranged from 1 (disagree strongly) to 5 (agree strongly); frequency responses ranged from 1 (never) to 5 (almost always). For the current study, reliabilities from baseline through Time 3 were adequate for Program Needs (range: α = .73 to α =.84), Training Needs (range: α = .77 to α = .85), Staffing Resources (range: α = .68 to α = .76), Training Resources (range: α = .60 to α = .78), Staff Efficacy (range: α = .57 to α = .70), Organizational Mission (range: α = .59 to α = .82), Training Utilization (range: α = .73 to α = .89), and Job Satisfaction (range: α = .71 to α = .83). Reliabilities were inadequate for Pressures for Change (range: α = .48 to α = .66), Staff Adaptability (range: α = .50 to α = .60), Organizational Autonomy (range: α = .37 to α = .49), and Organizational Change (range: α = .55 to α = .68); unreliable subscales should be interpreted cautiously (see Table 3A in Appendix A page 109 for individual subscale reliabilities). See Appendix B page 146 for a list of items within subscales.

Agencies' Recovery Orientation. Recovery orientation was rated by both consumers and case managers using the Recovery Self Assessment (O'Connell, Tondora, Croog, Evans, & Davidson, 2005). This scale measures five recovery domains: 1) Life Goals includes items about how agency staff facilitate the consumers' pursuit of individual goals; 2) Involvement includes items about how well the agency involves consumers in operations and program decisions; 3)

Diversity of Treatment Options includes items about the agency's incorporation of peer services and a variety of treatment options; 4) Choice includes items about access to treatment records, coercion, and the consumer's ability to choose care providers; and 5) Individually-Tailored Services includes items about how well the agency serves consumers' individual needs, their culture, and building community connections. Responses were rated on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree; reliability range: α = .76 to α = .90). For the current study, reliabilities at baseline were adequate (consumer ratings reliability range: α = .71 to α = .84; case manager ratings reliability range: α = .55 to α = .80; see Table 3B in Appendix A page 110 for individual subscale reliabilities). See Appendix B pages 149 and 150 for a list of items within subscales.

Satisfaction with Treatment Planning. In a previous focus group project, consumers were asked to identify what was most important to them in the treatment planning process. From their responses, project staff developed 21 items, six (6) categorical and qualitative questions, and 15 scaled items. On the scaled items, respondents indicated agreement on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Because this was a new measure we conducted a Factor Analysis, which revealed four factors. We named the first factor Positive Therapeutic Relationship (8 items, α [baseline] = .90; see Table 3D in Appendix A page 112); a sample item is "Your case manager respects that you know what is best for you." We named the second factor Normalization (3 items, α [baseline] = .73); a sample item is "Your case manager sees you, not the illness." We named the third factor Frequency, how often you can discuss or change your treatment plan (2 items, α [baseline] = .63). And we named the fourth factor Control, how much control the consumer has over his/her goals on the treatment plan (2 items, α [baseline] = .57). Reliabilities were adequate to good across all time points (see Table 3B in Appendix A page 110 for reliabilities by subscale and data collection time point). See Appendix B page 151 for a list of all the items within the subscales.

Case managers' approaches to treatment planning were assessed via 12 items developed by the project staff; these items are similar in content to items rated by consumers. Responses on these items ranged from 1 (strongly disagree) to 5 (strongly agree). Again, because this was a new measure we conducted a Factor Analysis which revealed three factors. We named the first factor Therapeutic Orientation (5 items, α [baseline] = .74; see Table 3D in Appendix A page 112); a sample item is "I listen to what consumers want to include in their treatment plans." We named the second factor Normalization (5 items, α [baseline] = .62); a sample item is "I see the consumer, not the illness." And we named the third factor Control, how much control the consumer has over his/her goals on the treatment plan (2 items, α [baseline] = .44); a sample item is "I fill out treatment plans and then ask the consumers to sign them. Reliabilities were poor for Normalization at Time 2 (α = .49) and Time 3 (α = .37), and were also poor for Control at all time points, (range: α = .29 to α = .54); unreliable subscales should be interpreted cautiously (see Table 3B in Appendix A page 110 for individual subscale reliabilities). See Appendix B page 152 for a list of items within subscales.

Knowledge of Ohio Consumer Outcomes System. The consumers rated 14 items (6 qualitative and 8 quantitative items) developed by project staff, to assess their knowledge of the Ohio Consumer Outcomes Survey. A sample qualitative item is, "With whom have you talked about what you wrote on the Outcomes Survey?" A sample quantitative item is, "If you complete

the Outcomes Survey more than once, you can look at the Outcomes Survey and see how your answers have changed." Respondents indicated their agreement on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Factor analyses revealed two factors. The first factor was Knowledge of Consumer Outcomes – True items (5 items, α [baseline] = .91); a sample item is "You can use the Outcomes Survey to identify goals for your treatment plan." The second factor was Knowledge of Consumer Outcomes – False items (5 items, α [baseline] = .43); a sample item is "Answering the questions on the Outcomes Survey can 'pink slip' or put you in the hospital." Reliabilities were good across all data collection time points for Knowledge of Consumer Outcomes – True Items (range: α = .84 to α = .91), but not for Knowledge of Consumer Outcomes – False Items (range: α = .24 to α = .53); unreliable subscales should be interpreted cautiously (see Table 3C in Appendix A page 111 for individual subscale reliabilities). See Appendix B page 153 for a list of items within subscales.

Case managers rated eight items developed by project staff to assess their knowledge of the Ohio Consumer Outcomes Survey. A sample item is, "The Ohio Outcomes Survey can help consumers understand how they are doing in their recovery program." Respondents indicated their agreement on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Factor Analyses revealed only one factor (range: α = .83 to α = 87; see Table 3C in Appendix A page 111 for individual subscale reliabilities). See Appendix B page 153 for a list of items within subscales.

Using Data in Treatment Planning. The consumers rated 15 items developed by project staff to assess use data between case managers and consumers during treatment planning; a sample item is, "You and your case manager made goals on your treatment plan about your quality of life." Consumers responded on a 5-point frequency scale ranging from 0 (never), to 4 (always). Factor analyses indicated one overall factor. Only 11 items were used to compute the scale (α = .96); two items were dropped because they were dichotomous and two additional items were dropped because they had lower factor loadings. Reliabilities were good across data collection time points (see Table 3C in Appendix A page 111). See Appendix B page 154 for a list of all the items within the subscales.

Case managers rated 13 items developed by project staff about jointly using data in treatment planning. These items were similar to the items on the consumer interview. Case managers responded on a 5-point frequency scale, ranging from 1 (never), to 5 (always). Factor Analyses revealed three factors. Factor 1 was Outcomes Communication (6 items, α [baseline] = .86; see Table 3C in Appendix A page 111); a sample item is, "How often do you talk with consumers about how their answers on the Outcomes Survey fit with their life history?" Factor 2 was Using Data in Treatment Planning (4 items, α [baseline] = .87); a sample item is, "How often do you use the Outcomes Survey with consumers to dialogue about which services and supports are available to meet their needs?". Factor 3 was Strengths/Red Flags (2 items, α [baseline] = .51); a sample item is, "How often do you give copies of the Strengths or Red Flags Reports to consumers with whom you work?" Reliabilities were adequate or good across data collection time points for Outcomes Communication and for Using Data in Treatment Planning; reliabilities were poor for the Strengths/Red Flags subscale and results should be interpreted cautiously (see Table 3C in Appendix A page 111). See Appendix B page 155 for a list of items within subscales.

Workshop Evaluation. The consumers evaluated the CDS workshop using 20 items developed by the project staff. Ten items are rated on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Factor analyses on the 10 scaled items revealed two factors. The first factor was Satisfaction, where consumers liked the course and felt the course was valuable (six items, α = .94; see Table 3C in Appendix A page 111); a sample item is "In the CDS course you got the kind of information you needed." The second factor was Application, where consumers used the information (four items, α = .89); a sample item is, "You have used some of the ideas from the CDS course with your case manager." Additionally there are two qualitative items and seven dichotomous items about barriers to using the CDS materials. See Appendix B page 156 for a list of all the items within the subscales.

Case managers evaluated their workshop using eight items adapted from items developed by the Texas Christian University Institute of Behavioral Research (2002). A sample item is, "Your supervisor supports and encourages you to apply the course information in your case management." Respondents indicated agreement on a 5-point scale ranging from 1 (not at all) to 5 (very much). Factor Analyses revealed only one factor (α [Time 2] = .89); reliability for this scale was poor at Time 3 and results should be interpreted cautiously (see Table 3C in Appendix A page 111). See Appendix B page 156 for a list of all the items within the subscales.

Indicators of Consumer Recovery. Outcomes Surveys were routinely collected by community mental health providers (at initial intake, six months, annually thereafter, and at discharge; Ohio Department of Mental Health, 2005a; Ohio Mental Health Outcomes Task Force, 2001). Initial Outcomes measures (i.e., within six months to one year of the start of the study) were considered as pretest scores.

The Consumer Survey (Ohio Department of Mental Health, 2006) included questions about Quality of Life (9 items, α [pretest]= .82), Financial Status (3 items, α [pretest] = .89), level of Symptom Distress (15 items, α [pretest] = .93), and feelings of Empowerment (28 items) which included the Self-Esteem/Self Efficacy subscale (9 items, α [pretest] = .89), Power/ Powerlessness subscale (8 items, α [pretest] = .65), Community Activism and Autonomy subscale (6 items, α [pretest] = .85), Optimism and Control Over the Future subscale (4 items, α [pretest] = .53), and Righteous Anger subscale (4 items, α [pretest] = .45). The Reliability coefficients were good for Quality of Life, Financial Status, Symptom Distress, Self-Esteem/Self Efficacy, Power/Powerlessness, and Community Activism and Autonomy (see Table 3D in Appendix A page 112 for reliability coefficients; see Appendix C page 157 for the Consumer Outcomes Survey Questions). The Reliability coefficients for Optimism and Control Over the Future, and Righteous Anger were poor and results should be interpreted cautiously.

The Provider Survey (Ohio Department of Mental Health, 2005a) included items on consumers' Community Functioning (these items were not scaled but included items on Social Contact [1 item], Social Interaction [1 item], Social Support [1 item], Housing Stability [1 item}, Activities of Daily Living [8 items], a Meaningful Activities subscale [6 items, α [pretest] = .85], Addictive Behaviors [1 item], Criminal Justice Involvement [1 item], and Aggressive Behaviors [1 item]). The Reliability coefficient was good for Meaningful Activities.

RESULTS

This section presents the results of data analyses conducted on this project. These results focus on changes in individual items and scales over the three data collection time periods. A future report will examine the relationship between these variables included in the study (e.g., How are Consumer Readiness for Mental Health Treatment and Service Empowerment related? Or, how is Organizational Readiness to Change related to Agency Recovery Orientation). This section presents:

- Details on how dosage (the amount or level of intervention experienced by consumers) was determined.
- For individual items (not scaled scores) Chi-square analyses were conducted to determine differences at baseline; paired *t*-tests were conducted to determine differences over time. See Glossary on Chi-square analyses and *t*-tests.
- **Comparisons by gender at baseline.** For the scales (combined items), *t*-tests compared consumer and case manager baseline scores (means) between males and females; all scores were combined, regardless of agency. Please see *t*-tests in the Glossary.
- **Comparisons between groups at baseline.** For the scales, ANOVAs compared baseline scale scores between agencies (for consumer responses). For case manager responses, *t*-tests compared baseline scale scores between intervention groups (the initial intervention group includes case manager responses from Agency A and Agency B, and the wait-list control group includes case managers responses from Agency C and Agency D) because of insufficient power to conduct analyses due to small sample sizes within agencies (at least one group with a sample size of less than 10). Please see the Glossary for information on ANOVAs and *t*-tests.
- **Dosage.** In order to determine if there was an effect by dosage for scales, change scores were computed between time points (e.g., Time 2 scale score minus baseline scale score, and Time 3 scale score minus Time 2 scale score). Correlations were computed for consumers at Time 2 for Agency A and Agency B because the consumer and case manager training courses occurred between baseline and Time 2. And correlations were computed for consumers at Time 3 for Agency C and Agency D because the consumer and case manager training courses occurred between Time 2 and Time 3. We hypothesized that consumers who received more of the intervention (i.e., a higher dose) would have greater scale change scores than consumers who had a lower dose. Please see the Glossary for information on correlations.
- **Change over time.** Line graphs show the average scores at each of three time points, by agency for both consumer responses and case manager responses. We hypothesized that consumers and case managers in the initial intervention group (Agency A and Agency B) would have significant differences (increases in mean scores over time) between Time 1 and Time 2, and that the wait-list control group (Agency C and Agency D) would have significant differences between Time 2 and Time 3. Please see the Glossary for information on *t*-tests and paired *t*-tests.

- In order to determine which differences were significant, paired *t*-tests were conducted for consumer responses between baseline and Time 2 scores, and between Time 2 and Time 3 scores, *within agency*.
- For some consumer responses, and for all case manager responses, paired *t*-tests were conducted *within intervention group*; data were compared within intervention group when there was too small of sample size to conduct analyses within agency. The initial intervention group combined Agency A and Agency B scores and the wait-list control group combined Agency C and Agency D scores.

- **General Linear Modeling.** An alternative to paired *t*-tests is General Linear Modeling with Repeated Measures (GLM), which can be used to determine significant differences while accounting for other groups (gender) and covariates (dosage). In some cases, these analyses were run when there were significant baseline effects for gender. For ease in readability, these results are not reported in text or tables, but may appear as footnotes. Please see the Glossary for information on GLM.

Dosage. Because the intervention program was a combination of two training programs (one for consumers and one for case managers), a dosage variable was created to account for the relative amount of program participation. Dosage was calculated by summing the number of days consumers attended training (0–2), and the number of days their current case manager attended training (0–2). Because participation in the training course was entirely voluntary, not all consumers attended training; more than half of the consumers in Agency A (60.6%) and Agency B (61.3%) attended at least one of the two training days, while less than half of the consumers in Agency C (35.9%) and Agency D (40.7%) attended at least one day.

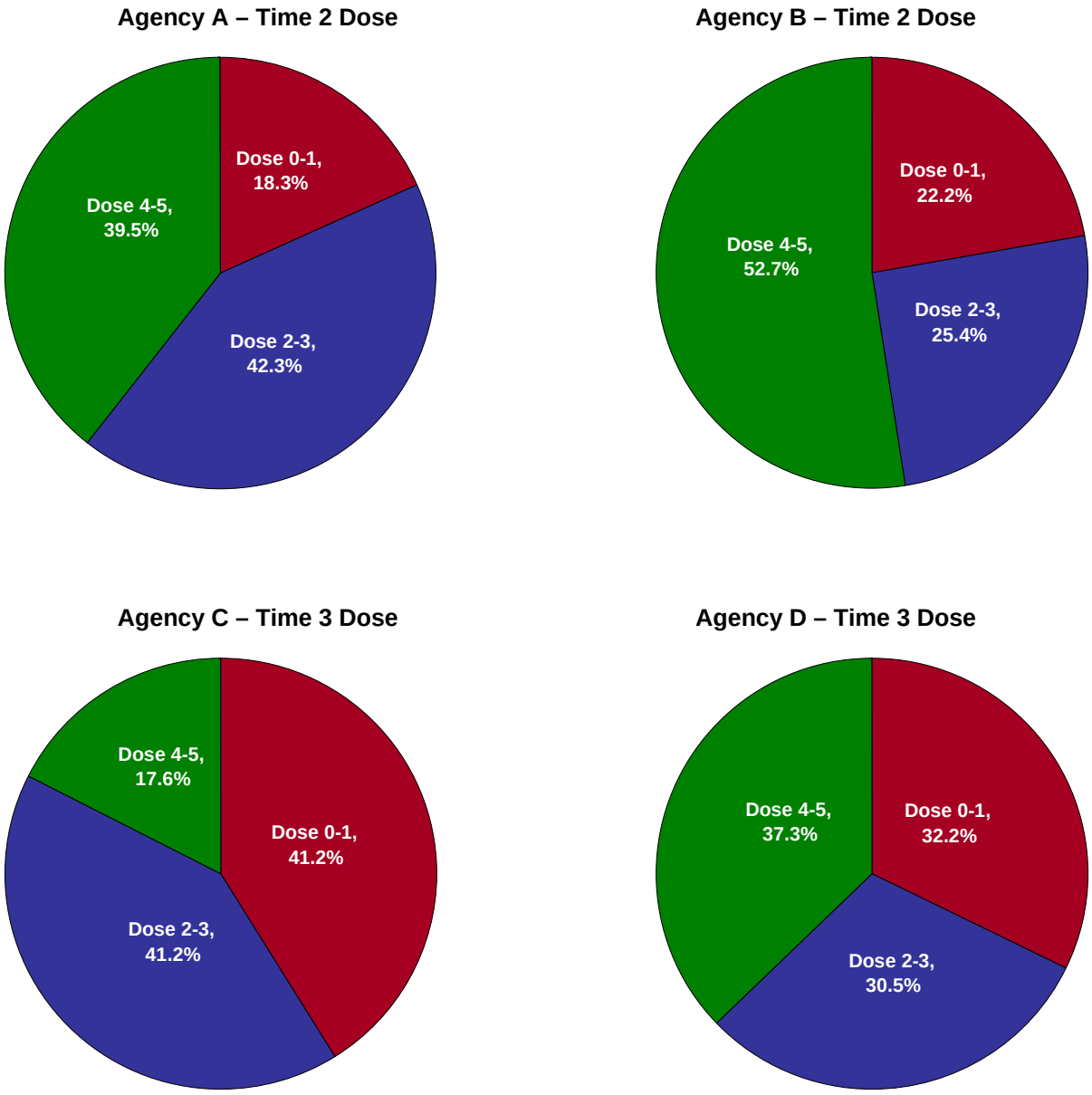
Because the knowledge gained in both the consumer and case manager training programs was designed to be utilized during treatment planning sessions about the consumer's goals, an additional point was added if both the consumer and case manager attended some training and if their treatment plan occurred after both training programs (0–1). Thus the cumulative dosage score ranged from 0 to 5.

Dosage scores were used only in the analyses of consumer response data. Dosage was not used in the analyses of case manager responses because there was little variability in the case manager dosage scores (0–2), as the majority of case managers attended training because it was required by the agencies.

- At Time 2, dosage for agencies in the initial intervention group ranged from zero to five and dosage for agencies in the wait-list control group was zero. At Time 3, dosage for agencies in the wait-list control group ranged from zero to five. Statistical analyses were conducted to determine if dosage has an effect on change over time for the scaled variables.

- Fewer consumers attended the Climbing Into the Driver's Seat course in both Agency C and Agency D; as a result, they had higher percentages of consumers with Dose 0–1 (see Figure 11).

Figure 11. Dosage by Agency

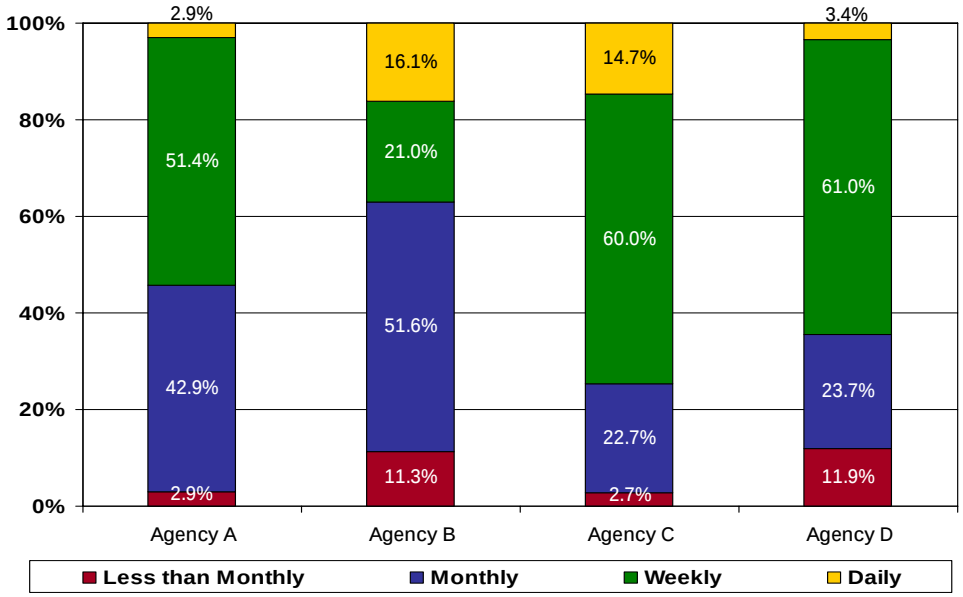


Service Empowerment

Consumers – Contact with the Mental Health Agency. Consumers rated their 1) frequency of contact with the mental health agency, 2) staff with whom they have the most contact with at the mental health agency, 3) frequency of contact with their case manager, 4) whether they had enough contact with the mental health agency, and 5) the importance of having contact with the mental health agency when they needed it

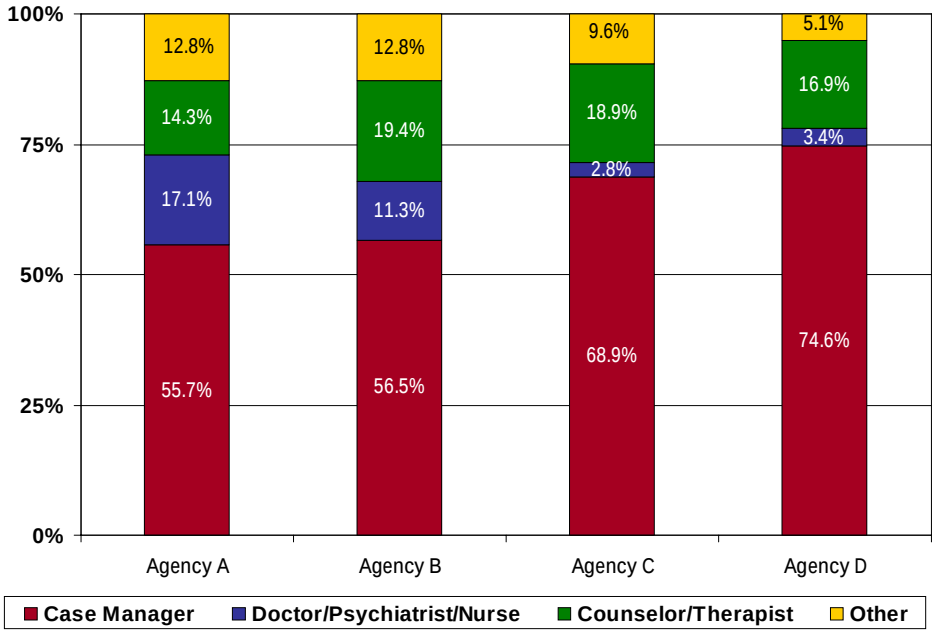
- **Frequency of Contact with the Mental Health Agency.** Figure 12 presents the baseline frequencies of consumers' perceived contact with the mental health agency. The majority of consumers reported that they had at least monthly contact with the agencies (93.2% combined across agencies).
  - Differences by agency at baseline. Chi-square analyses showed significant differences between agencies' baseline frequency of consumers' contact with the mental health agency ($\chi^2 = 43.31$, $p = .000$). At baseline, over half of consumers in Agency A, Agency C, and Agency D reported contact with the mental health agency weekly; additionally, consumers in Agency B and Agency C reported higher percentages for contact with the mental health agency daily, which may be due to specific services offered by individual agencies (e.g., partial hospitalization).
  - Change over time. Paired *t*-tests were conducted to determine any changes over time in consumers' responses on their contact with the mental health agency (see Table 4A in Appendix A page 113). Results showed significant decreases between Time 1 and Time 2 for Agency A, Agency C, and Agency D; meaning consumers reported seeing people at the mental health agency a little less frequently (means were between 3 [monthly] and 4 [weekly]). However, for Agency D, there was a significant increase in the mean score between Time 2 and Time 3, meaning consumers reported seeing people at the mental health agency a little more frequently.

Figure 12. Baseline Frequency of Consumers' Contact with the Mental Health Agency



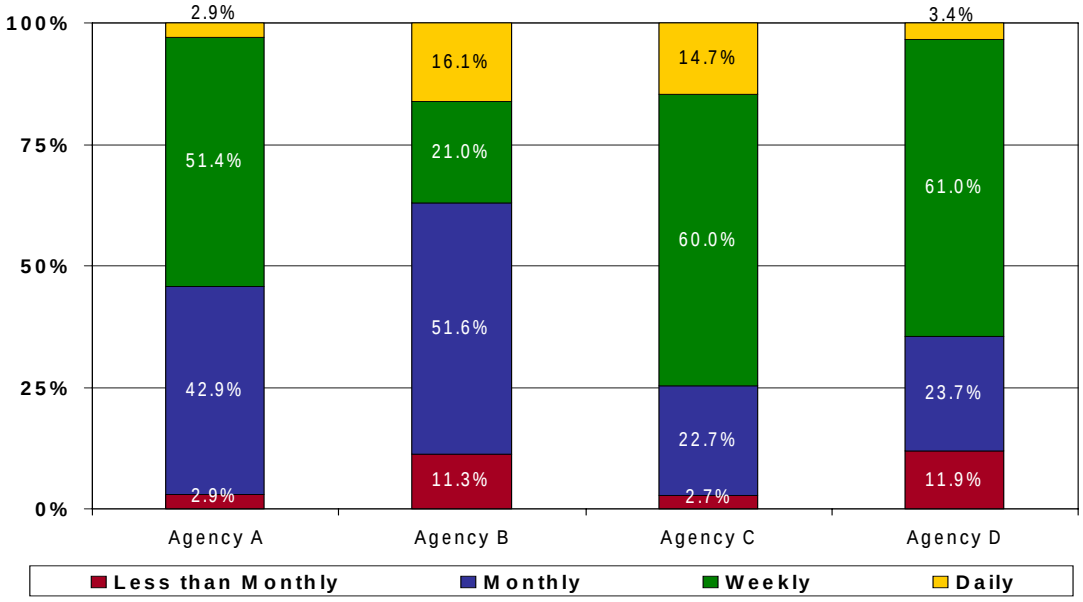
- **Staff at the Mental Health Agency Consumers Have Most Contact With.** Figure 13 displays the baseline percentage of staff that consumers have most contact with at the mental health agency. At baseline, the majority of consumers reported that the agency staff they saw most frequently was their case manager (63.8% combined across agencies).
    - Differences by agency at baseline. The graph shows that consumers in Agency C and Agency D saw case managers more frequently, and the doctor or psychiatric nurse less frequently. However, chi-square analyses indicated that these differences were not statistically significant ($\chi^2 = 28.22$, $p = .059$); in other words, the percentage differences between agencies were not large enough to be statistically meaningful.

Figure 13. Baseline Percent of Staff at Mental Health Agency with which Consumers have Most Frequent Contact



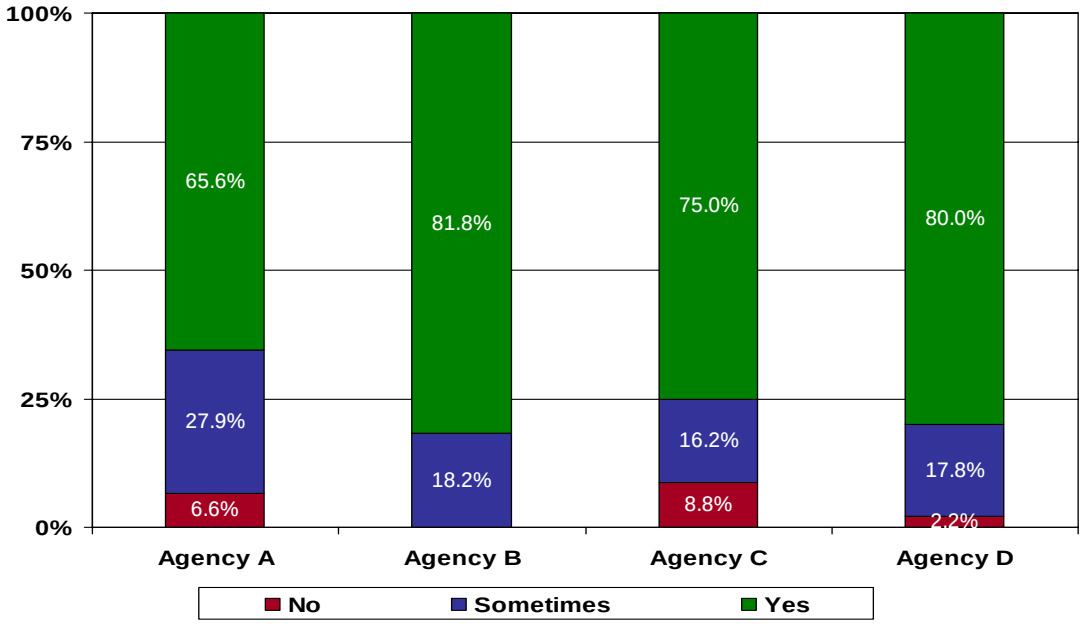
- **Frequency of Contact with Case Manager.** Figure 14 presents the baseline frequencies at which consumers reported contact with case managers. The majority of consumers reported contact with case managers at least monthly (89.4% combined across agencies).
  - Differences by agency at baseline. Chi-square analyses showed significant differences between consumers' reported level of contact with their case managers at each agency ($\chi^2 = 50.11$, $p = .000$). Consumers in Agency A and Agency B reported more contact with case managers monthly; while consumers in Agency C and Agency D reported more contact with case managers weekly.
  - Change over time. Paired *t*-tests were conducted to determine any changes over time in consumers' responses on their contact with case managers (see Table 4A in Appendix A page 113). There was only one statistically significant change between baseline and Time 2; at Time 2 consumers in Agency A reported less frequent contact with their case managers ($t = 3.08$, $p = .003$; the mean fell below 3 [monthly]). Although the mean score for Agency B also decreased below 3 at Time 2, this change was not statistically significant which means the change was small. There were no statistically significant changes in consumers' perceptions of frequency of contact with case managers between Time 2 and Time 3.

Figure 14. Baseline Frequency of Consumers' Contact with Case Managers



- **Enough contact with the mental health agency.** Figure 15 presents the baseline frequencies at which consumers responded about whether they had enough contact with people from the mental health agency. Three-quarters of consumers reported that they did have enough contact (75.5% combined across agencies).
  - Differences by agency at baseline. There were no significant differences between the four agencies (see Figure 15).
  - Change over time. Chi-square tests were conducted to determine any changes over time in consumers' perceptions of having enough contact with people at the mental health agency when they need it.
    - Chi-square analyses showed significant differences for two agencies between baseline and Time 2. For Agency A ($\chi^2 = 10.58$, $p = .032$), the percentage of consumers who answered "yes" they had enough contact increased at Time 2 (65.6% to 70.5%). For Agency C ($\chi^2 = 16.50$, $p = .002$) the percentage of consumers who answered "yes" they had enough contact decreased at Time 2 (75.0% to 69.1%) while the percentage who answered "no" increased (8.8% to 13.2%). There were no significant differences for Agency B or Agency D.
    - Chi-square analyses showed significant differences for two agencies between Time 2 and Time 3. For Agency B ($\chi^2 = 8.73$, p = .013), the percentage of consumers who answered "yes" they had enough contact decreased at Time 3 (86.4% to 71.4%), while the percentage who answered "no" increased (0% to 11.4%. For Agency C ($\chi^2 = 38.84$, p = .000) the percentage of consumers who answered "yes" they had enough contact increased (69.1% to 78.0%), ultimately above the initial "yes" percent at baseline (75.0%). There were no significant differences for Agency A or Agency D.

Figure 15. Baseline Percent of Consumers' Perceptions of Having Enough Contact with People at the Mental Health Agency



- **Consumer Comments – Enough Contact with the Mental Health Agency.** Over one-quarter of consumers (28%) provided some additional detail about what it means for them to have enough contact with the mental health agency.
  - Several consumers (16.4%) indicated ***access*** was important and sometimes access issues prohibited having enough contact with the agency.
    - One access issue consumers reported utilizing was the *hotline or on-call phone line* in times of need.
    - Some consumers reported *desiring more time with staff*, "I only see my case manager once a month and sometimes I feel down and wish it was more often."
    - Several other consumers reported problems with having *phone calls returned*, or not being able to contact the agency by phone, "If you don't have an appointment you have to leave a message and it can take days for them to get back to you."
    - And a few consumers reporting access issues due to *transportation challenges*, living far away from the agency, or having unreliable transportation.
  - Some consumers (6.9%) indicated ***staffing issues*** impacted having enough contact with the agency.
    - Several consumers mentioned that staff were very *busy and had high caseloads*, for example, "The Doctor's schedule is so busy, I haven't seen him for 8 weeks, when I usually see him every month." And, "Sometimes I don't mention problems because I know they get a lot of clients."
    - A few consumers mentioned *turnover in their case managers* was a problem, such as, "When change of a case manager happens, I can't get answers to questions or concerns when I need. Sometimes there is a delay before a new case manager is assigned."
  - Some consumers (4%) indicated issues with ***satisfaction or dissatisfaction*** with agency staff impacted their perception of having enough contact.
    - A couple consumers said they were *satisfied with agency staff,* "He is available when needed and helped me a lot."
    - Several consumers said they were *dissatisfied with their case managers*. One consumer said, "Case worker has not gotten around to doing some stuff. He is supposed to have me in groups and he hasn't done anything." And another said, "I would like for my case manager to help me with other things than spend down."
  - A few consumers (1.8%) said that their ***mental health conditions*** impact their ability to connect with people at the agency, one consumer said, "They always offer but when I really need it I tend to isolate myself."
  - A few consumers (1.5%) indicated ***hospitalization issues***: one consumer indicated he received excellent care during a crisis, one consumer indicated going to emergency services as a hospital during crises, and two consumers said they needed crisis services they did not receive.
  - A few consumes (1.0%) indicated that their ***relationship with agency staff*** was very helpful, "They are always here, will stop to help you, they care about you."

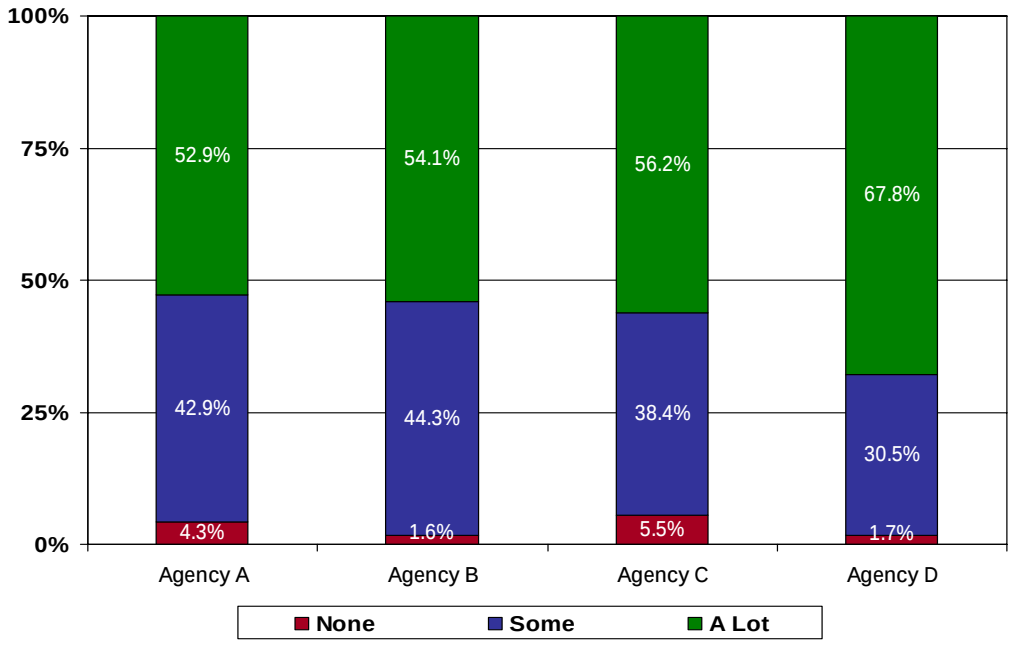
- **Importance of Contact with the Mental Health Agency When Needed.** Consumers rated the importance of having contact when they needed it using a 5-point scale from 0 (not at all important) to 4 (extremely important). The high mean (Total sample: $M = 3.35$, $SD = .85$), between a score of 3 (quite important) and 4 (extremely important) indicates that for consumers, having contact with the mental health agency when they need it is crucial.
  - Differences by agency at baseline. There were no significant differences between the agencies in consumers' ratings of the importance of having contact (see Table 4A in Appendix A page 113).
  - Change over time. Paired *t*-tests were conducted to determine any changes over time in consumers' ratings of the importance of having contact with the mental health agency. (see Table 4A in Appendix A page 113).
    - Results showed no significant differences between Time 1 and Time 2 for Agency B or Agency C. There was a significant increase in the mean score for Agency A ($t = -1.84$, $p = .070$). There were no significant differences in consumers' ratings of the importance of having contact with the mental health agency between Time 2 and Time 3 for Agency A, Agency B, or Agency C.
    - There was a significant decrease in the mean score for Agency D Time 1 to Time 2 ($t = 2.63$, $p = .012$), where the mean dropped below a 3 (quite important) at Time 2, however, at Time 3, there was a significant increase in the mean score ($t = -2.57$, $p = .014$), returning to near the baseline mean between 3 (quite important) and 4 (extremely important).

Consumers – Say Over Services. Consumers responded to questions about 1) how much say they have over services at the mental health agency, 2) if they have enough say, and 3) the importance of having a say in their services

- **How much say over services.** Over half reported they had *a lot of* say (57.4% combined across agencies); and over one-third of consumers said that they had *some* say (39.2% combined across agencies). A small percentage of consumers (3.4% combined across agencies) reported they had *no* say.
  - Differences by agency at baseline. There were no significant differences in consumers' perceptions of their say over services between any of the agencies by agency at baseline (see Figure 16).
  - Change over time. Chi-square tests were conducted to determine any changes over time in consumers' perceptions of how much say they have over services.
    - Results showed significant change between baseline and Time 2 for Agency A ($\chi^2 = 21.65$, $p = .000$), Agency B ($\chi^2 = 11.23$, $p = .004$), and Agency C ($\chi^2 = 16.06$, $p = .003$); there was no significant change for Agency D. Higher percentages of consumers answered they had "a lot" of say in Agency A (52.9% to 60.7%), Agency B (54.1% to 60.9%), and Agency C (56.2% to 60.6%) at Time 2 compared with baseline.

– Results showed significant change between Time 2 and Time 3 for Agency A ($\chi^2 = 19.88$, $p = .001$), Agency B ($\chi^2 = 11.75$, $p = .003$), and Agency D ($\chi^2 = 42.01$, $p = .000$). In Agency A, compared with Time 2, fewer consumers at Time 3 reported having no say, while a larger percentage reported having some say (32.8% to 39.6%). Compared with Time 2, more consumers at Time 3 reported having a lot of say in both Agency B (60.9% to 68.4%) and Agency D (69.6% to 75.0%). There was no significant change for Agency C.

Figure 16. Baseline Percent of Consumers' Perceptions of How Much Say in their Services at the Mental Health Agency

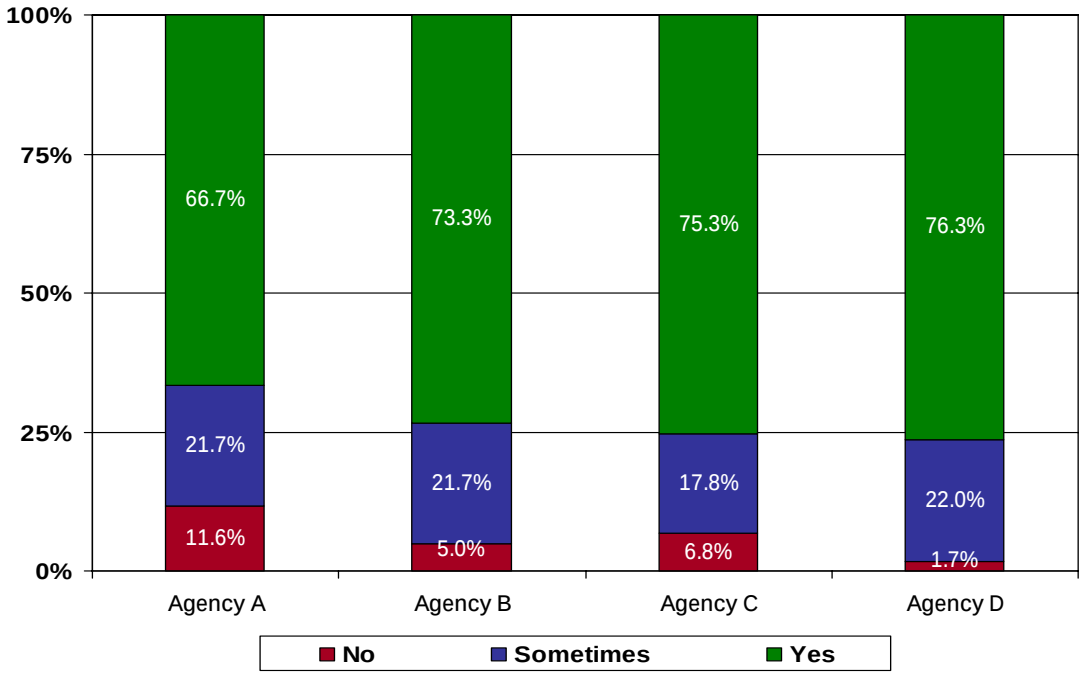


- **Consumer Comments – How Much Say In Services.** Most consumers (90.5%) provided some additional comments about how much say they have in the services they receive.
  - About one-third of consumer (31.3%) commented that having a say in their services impacted their sense of ***empowerment***. Most of the comments about empowerment were fairly general, for example, "It makes me feel that I'm in control of myself and not them." Another comment was, "It means a great deal, gives me more confidence that I have input in my services."
    - Most consumers' comments were positive and many particularly emphasized *speaking their needs and wants,* such as, "I have a lot of say when we do my goals." and, "They never force me to do anything, I express my needs and they tell me what is available."
    - However a few consumers said that they *still do not feel empowered* or feel that they have control, for example one consumer said, "They still have the majority of control." while another said, "I feel that I need to be listened to a lot more than I am because I have the education and experience to do a lot more than is expected of me and that they let me do."

- One-quarter of consumers (25.1%) commented that ***choice*** is very important to them, for example, "It means a lot to me to have my own choices."
  - Consumers desire *choices in their treatment* options, *services* they utilize, *goals* they make, *classes* they attend, *and staff* they work with. For example, one person said, "I get to choose what goals to work on and what groups to attend." Another said, "I get to pick out what groups I want to go to, I have a say in who I want as a therapist, and I have a say in what I feel about my situation."
  - Some consumers indicated that they *lack choice in services and/or staff.* For example, one person said, "My therapist wants to discontinue therapy and I don't think it's a good idea. It doesn't matter what I think." Another person said, "They tell me what I'm going to do and who I'm going to see, I don't get a choice."
- Almost one-fifth of consumers (18.2%) commented about meeting their ***basic needs***.
  - Of all the basic needs mentioned, *medication issues and being able to see the doctor* were listed most frequently. Some consumers mentioned that they get less time with the doctor than they would like. Some people mentioned that they do get to tell the doctor about how they are reacting to medication. Some consumers mentioned they have choices about what medication they are prescribed, while others mentioned that it's the doctor's choice about what to prescribe.
  - Other important basic needs mentioned included *employment, help with money, housing, living skills, physical health, and social issues*. For example on person commented about budget, "I can talk to my counselor as often as I want and she lets me have a say about my budget." Another commented about housing, "They're helping me try to find another place to live when I leave here and figure out what I'm going to do with my life." And another person added that their case manager helped them with their assertiveness.
- Several consumers responses (10.2%) indicated that ***relationship with agency staff*** was very important, particularly staff ***listening*** to them, ***respecting*** them, and ***caring*** about them. For example, one person commented, "I feel they respect my views and that I am making progress because they listen so well." And another said, "They let me know I have freedom of speech; it lets me know they really care and want me to get better by allowing me to have input."
- Several consumer responses (6.9%) mentioned ***access issues*** impacted how much say they have. Most often consumers mentioned desiring more time with staff. Also some consumers mentioned that not all programs they are interested in are available at the agency.
- A few consumers (2.8%) indicated that being able to ***get information and ask questions*** was important for them to help them make choices and decisions, for example one person commented, "It's real important because I feel I can ask questions about things I don't understand." Another commented, "I feel I get supported through [name]. I rely on him a lot for answering questions."
- Only a few other comments were included, these comments were about satisfaction or dissatisfaction with staff at the agency, and staffing issues (e.g., busy staff).

- **Enough Say Over Services.** Consumers responded about whether they had enough say over services they received at the mental health agency. Almost three-quarters of consumers reported that they did have enough say (72.8% combined across agencies); 20.7% of consumers reported they sometimes have enough say, and a few consumers (6.5%) reported they did not have enough say.
  - Differences by agency at baseline. There were no significant differences in consumers' perceptions of having enough say between agencies at baseline (see Figure 17).
  - Change over time. Chi-square tests were conducted to determine any changes over time in consumers' perception of having enough say over services.
    - There were significant differences between baseline and Time 2 for consumers' perceptions of having enough say, for all of the agencies. A greater percentage of consumers responded "yes" they had enough say at Time 2 for Agency A (66.7% t o 71.2%), Agency B (73.3% to 78.3%), and Agency D (76.3% to 87.0%). At Time 2, fewer consumers in Agency C responded "yes" (75.3% to 71.4%) while more consumers responded "sometimes" or "no".
    - There were no significant differences between Time 2 and Time 3, for consumers' perceptions of having enough say, for any of the agencies.

Figure 17. Baseline Percent of Consumers' Perceptions of Enough Say Over Services



- **Consumer Comments – Enough Say.** Most consumers (87.6%) provided additional comments about their perception of having enough say in the services they receive. The comments about having enough say are fairy similar with consumers' comments about how much say they have in the services they receive.
  - Over one-quart of consumers' comments (27.3%) reflected that having a say in services is associated with their sense of ***empowerment***.
    - Many consumers are empowered through *speaking their wants and needs*. For example, one consumer mentioned that she, "let them know where I'm at in recovery. I'm getting stronger and grew out of therapy. I was able to tell them and move on." And another person said, "I feel I have a say in the services, and I have a say in the medications and case management."
    - While many consumers are empowered, some consumers still report a need for empowerment or a *lack of empowerment*. For example, one person said, "Sometimes they'll say and do something for me and I disagree or don't approve. I don't say anything, I just keep it to myself." And while another consumer was empower to act, she reported some negative outcomes, "I have gone over people's heads trying to get things done, which ahs caused some resentment from the nurse, and my case manager. It's too disheartening to battle with this all the time."
  - Similar to the comments above and about how much say consumers have, 20.0% of consumers mentioned that they have a ***choice in their treatment options, services, goals, classes, and staff***.
    - For example, one person mentioned, "If I don't want to do something this agency respects me enough to give me choices about what I want to do." And another person said, "They don't do anything without my approval." Choice is important, one person said, "I felt good about being able to change counselors when I needed to."
    - However some consumers report having a lack of choice. For example, one person said, "I can have my say but things don't change, what they decide is what they decide." Some consumers reported not being able to change case managers. Another person reported that he did not get to do things because his case manager did not like him and would not listen.
  - Several consumers (14.2%) comments about having a say in their services were about ***basic needs***, for example help with money and budgeting, housing, transportation, and medication. The most frequent basic need mentioned was surrounding medication and seeing the doctor, for example, one person said, "They don't want to force a drug on me, we discuss benefits and side-effects of the medication. They inform me well." However other consumers have difficulty with having say regarding their medication, another person said, "My doctor continues to give me medications that don't work."
  - Several consumers (13.5%) mentioned ***communication*** issues. Some consumers mentioned asking questions and getting information, while others mentioned lack of communication regarding staff changes.
  - And several consumers (9.5%) mentioned aspects of their ***relationship with staff*** that were important to them, such as listening, respect, caring, and feeling part of a partnership. For example, one person mentioned, "My case manager will come over when I need her to, and I can open myself more freely with her. She listens to me, and takes what I see as important."

- A few consumers (6.5%) mentioned ***access issues***. Access issues mentioned that case manager availability, lower wait times, and return phone calls are important, and that the hotline has been valuable in times of crisis.

- **Importance of Having a Say in Services.** Consumers rated the importance of having a say using a 5-point scale from 0 (not at all important) to 4 (extremely important). The high mean (Total sample: $M = 3.42$, $SD = .79$), between a score of 3 (quite important) and 4 (extremely important) indicates that for consumers, having a say in their services is vital.
  - Differences by agency at baseline. There were no significant differences between the agencies on consumers' ratings of the importance of having a say in their services.
  - Change over time. Paired *t*-tests were conducted to determine if there were any changes over time for consumers' perceptions of the importance of having a say in their services (see Table 4A in Appendix A page 113). Results showed no significant differences between Time 1 and Time 2, or between Time 2 and Time 3, for any of the agencies which means the changes in mean scores over time were small.

Consumers – Service Empowerment Scales. Consumers rated their sense of empowerment with two subscales. The Service Decisions subscale questions ask about consumers' perceived control and involvement in their mental health treatment using a 5-point scale ranging from 0 (none) to 4 (complete). The Service Relationship subscale questions ask how consumers perceive their relationship with their case manager, for example how well the consumer and the case manager know each other, the consumers' sense of the case managers' respect, and the frequency of communication. These items were rated on two 5-point scales, the first ranging from 0 (not at all) to 4 (extremely), and the second rating frequency, from 0 (never) to 4 (always), [see the Measures section for additional scale information; see Appendix B page 143 for a list of all the items within the scales]).

- The baseline mean for consumers' perceptions of their empowerment in Service Decisions (Total sample: $M = 2.79$, $SD = .73$) was between a score of 2 (some) and 3 (quite a bit). The baseline mean for consumers' perceptions of their empowerment in the Service Relationship between themselves and their case managers (Total sample: $M = 2.84$, $SD = .76$) was between a score of 2 (moderately) and 3 (quite a bit). These scores indicate room for improvement in consumers' perceptions of their Service Empowerment.

- **Gender.** *T*-tests were conducted on the subscales to determine if there was a significant effect by gender. There were statistically significant differences by gender at baseline; the higher mean score for females on Service Decisions and Service Relationship suggest that females felt they were more empowered in their service decisions and in their service relationship than males (see Table 4B in Appendix A page 114).[§]

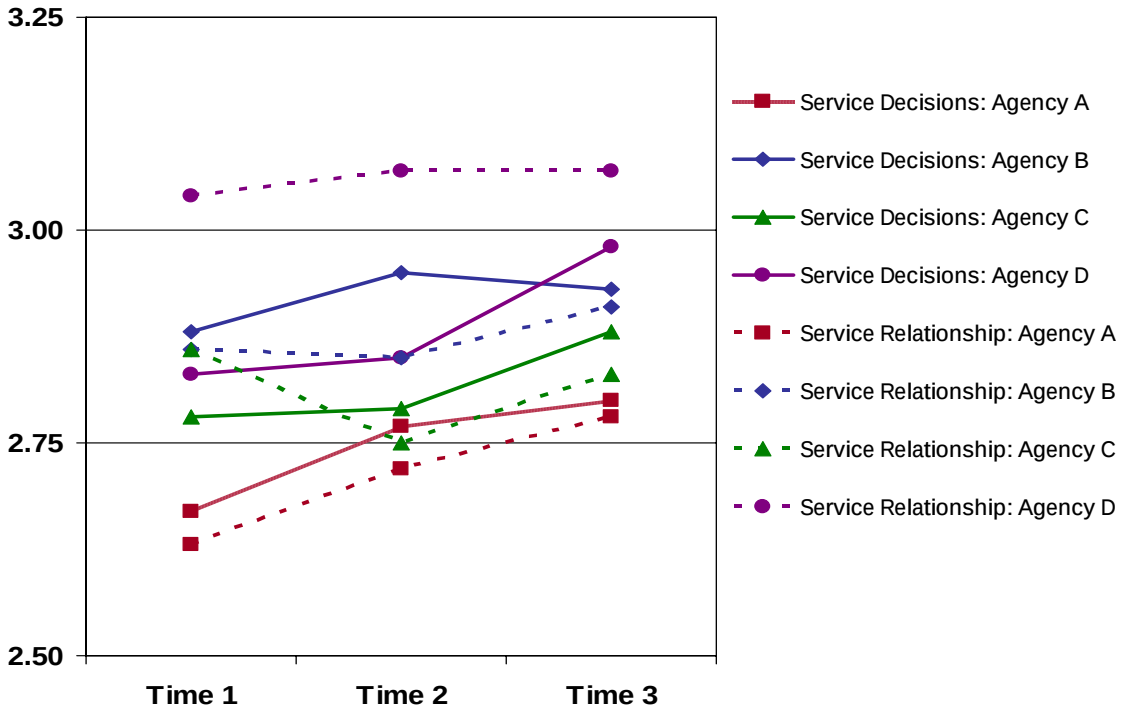
[§] GLM with Repeated Measures Analyses were conducted using both baseline and Time 2 data, with gender as a between subjects factor, dosage as a covariate, by intervention group (initial intervention group: Agencies A and B combined, and wait-list control group: Agencies C and D combined). GLM results showed no significant differences by gender. This would mean that while females may be more empowered than males overall, after including change over time, agency group, and accounting for the program (dose), males and females are not different.

- **Differences by agency at baseline.** One-way ANOVAs were conducted to determine if there were differences in consumers' Service Empowerment at baseline. There were no significant differences between agencies on Service Decisions. There was a statistically significant difference between the agencies for Service Relationship ($F = 3.25$, $p = .022$); Agency D had a significant higher mean score at baseline than Agency A (Agency D was not significantly different than Agency B or Agency C; see Figure 18 and see Table 4D in Appendix A page 115; the graph is spread so that small changes are observable).

- **Dosage.** Correlations were conducted to determine if there was an effect of dosage on Service Empowerment. Dosage was correlated with Service Empowerment change scores (e.g., Time 2 Service Decisions score minus baseline Service Decisions score and Time 3 Service Decisions score minus Time 2 Service Decisions score). We hypothesized that consumers who received more of the intervention (i.e., a higher dose) would have greater Service Empowerment change scores than consumers who had a lower dose.
    - Correlations were computed at Time 2 for Agency A and Agency B because the consumer and case manager training courses occurred between baseline and Time 2. And correlations were computed at Time 3 for Agency C and Agency D because the consumer and case manager training courses occurred between Time 2 and Time 3. There were no statistically significant correlations between dose and Service Decisions or Service Relationship change scores at Time 2 or Time 3 (see Table 4C in Appendix A page 114). This means that intervention dosage did not influence Service Empowerment change, or that the changes were very small.

- **Change over time.** Paired *t*-tests were conducted to determine changes over time in consumers' perceptions of Service Decisions and Service Relationship. We hypothesized that consumers in the initial intervention group would have significant differences (increases in Service Empowerment mean scores over time) between Time 1 and Time 2, and that the wait-list control group would have significant differences between Time 2 and Time 3 (see Table 4D in Appendix A page 115). Figure 18 presents the mean scores by time and Agency (the graph is spread so that small changes are observable).
    - Service Decisions. Agency A and Agency B mean scores increased from Time 1 to Time 2, and Agency C and Agency D mean scores increased from Time 2 to Time 3; however, these increases were not large enough to be statistically significant.
    - Service Relationship. The mean score for Agency A increased at Time 2 and Time 3, Agency B and Agency D mean scores remained relatively even at Time 2 and slightly increased at Time 3, and the mean score for Agency C decreased at Time 2 and increased at Time 3, but still remained lower at Time 3 than baseline. However, these changes were not large enough to be statistically significant for any of the agencies.

Figure 18. Changes in Consumers' Service Decision and Service Relationships Scores by Time and by Agency



Case Managers. Case managers rated their orientation to consumer empowerment using four subscales. The Service Decisions subscale includes questions about involving consumers in treatment plans. The Understanding Consumers subscale includes questions about understanding consumers needs and helping consumers to make decisions about their lives. Both the Service Decisions and Understanding Consumers questions were rated by case managers using a 5-point scale ranging from 1 (none) to 5 (completely). The Service Relationship subscale included items about treating consumers with respect, and listening to consumers. The Share Self subscale included items about case managers sharing personal information with consumers. Case managers rated both Service Relationship and Share Self using a 5-point frequency scale ranging from 1 (never) to 5 (always; see the Measures section for additional scale information; see Appendix B page 144 for a list of items within the scales]).

- The baseline mean for case managers' perceptions of their empowerment in Service Decisions (Total sample: M = 3.78, SD = .56), and the baseline mean for case managers' perceptions of their empowerment of Understanding Consumers (Total sample: *M* = 3.78, *SD* = .43) are between a score of 3 (some) and 4 (quite a bit). These scores indicate case managers had a positive perception of their understanding of the consumers' needs and giving consumers' choice in their services and on their treatment plans. These scores also indicate there is room for improvement.

- The baseline mean is very high, between a score of 4 (often) and 5 (always), for how frequently case managers indicate behaviors that foster their Service Relationship with consumers (Total sample: $M = 4.54$, $SD = .35$). This score indicates that case managers believe they frequently encourage consumers, and talk with consumers about what is important to them.

- The baseline mean for how frequently case managers indicate sharing information about themselves with consumers is much lower, between a score of 2 (seldom/rarely) and 3 (sometimes), than the other Service Empowerment subscales (Total sample: $M = 2.85$, $SD = .74$). These low scores may indicate that case managers believe that sharing personal information or their own limitations with consumers is not relevant to their relationships with the consumers.

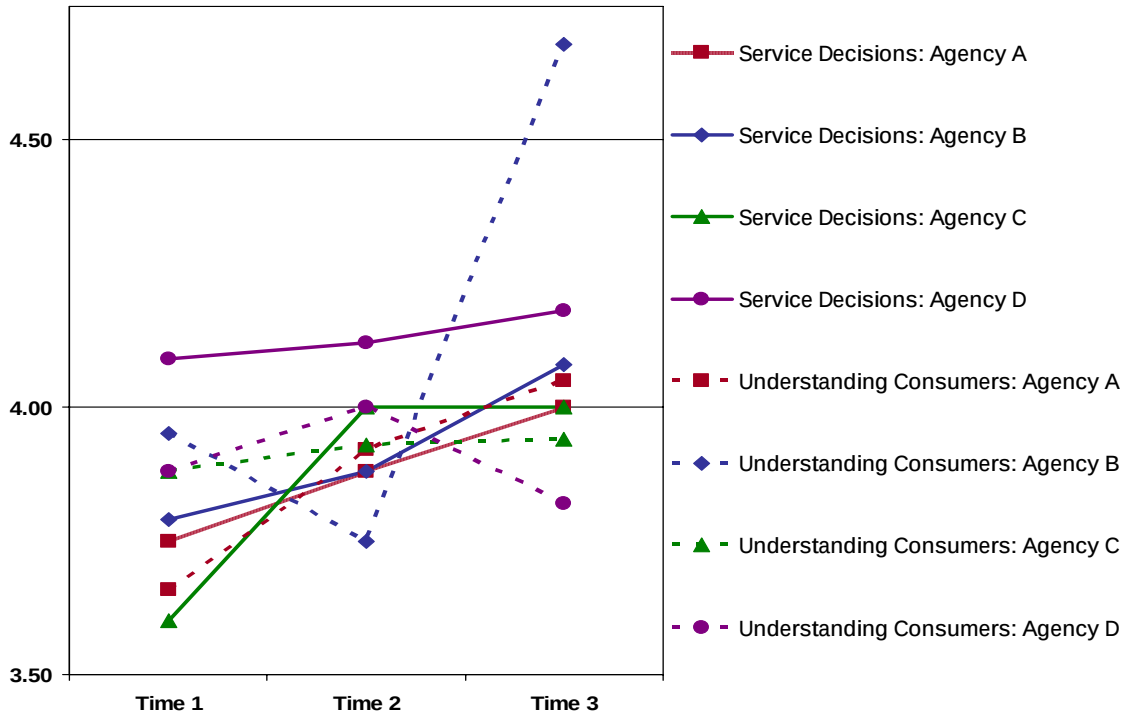
- **Gender.** *T*-tests were conducted on the subscales to determine if there was a significant effect by gender. There were no statistically significant differences by gender at baseline which means that males and females were similar (see *t*-test results in Table 4B in Appendix A page 114).

- **Differences by intervention group at baseline.** *T*-tests were conducted to determine if there were differences in case managers' perceptions of their Service Empowerment at baseline. Table 4E presents the means by agency (see also Figure 19 and Figure 20); Table 4F presents the means and statistical tests by intervention group (see Appendix A page 116 and 117).
    - There were no statistically significant differences between the intervention groups on Service Decisions, Understanding Consumers, or Service Relationship which means case managers rated these Service Empowerment subscales similarly. There was a statistically significant difference for Share Self: case managers in the wait-list control group had a higher mean than case managers in the initial intervention group ($F = -2.04$, $p = .05$) which means case managers in the wait-list control group (probably case managers in Agency C, when looking at the figure) share more about themselves with consumers than case managers do in the other agencies.

- **Change over time.** Paired *t*-tests were conducted to determine changes over time in case managers' perceptions of their Service Empowerment (see Table 4F in Appendix A page 117). We hypothesized that case managers in the initial intervention group would have significant differences in Service Empowerment baseline to Time 2, and that the wait-list control group would have significant differences Time 2 to Time 3 (i.e., increases in mean scores over time; see Figures 19 and 20; the graphs are spread so that small changes are observable).

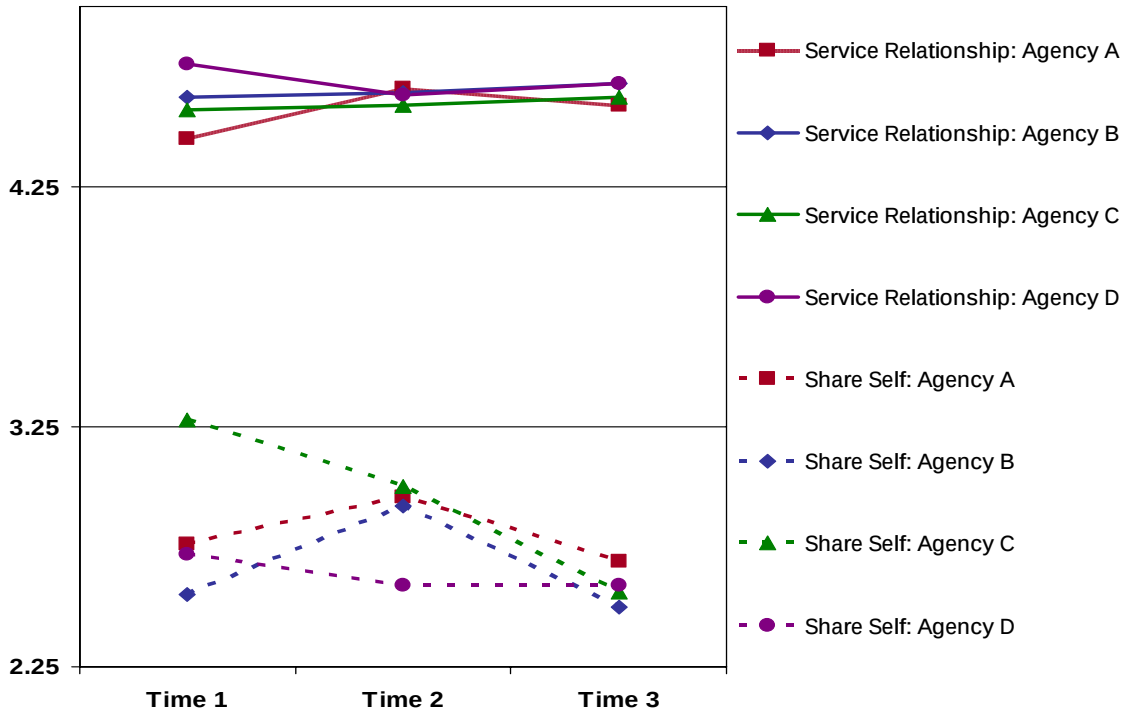
- Service Decisions. Service Decisions subscale scores increased for each agency (see Figure 19); however, when aggregating by intervention group, only the increase in the wait-list control group mean score on the Service Decisions' subscale was statistically significant between Time 1 and Time 2 (see Table 4F in Appendix A page 117). The small increases from Time 2 to Time 3 for both the initial intervention group and the wait-list control group were not significant, which means these changes were small.
- Understanding Consumers. Agency A and Agency C mean scores slightly increased in this subscale over time; Agency B scores decreased at Time 2 then increased at Time 3, and Agency D scores increased then decreased in this subscale over time (see Figure 19). When aggregating by intervention group, there was a statistically significant increase in the Understanding Consumers mean score for the initial intervention group from Time 1 to Time 2, but no significant difference for Time 2 to Time 3. This significant increase was consistent with our hypotheses (see Table 4F in Appendix A page 117). The small changes for the wait-list control group were not significant between Time 1 and Time 2, or between Time 2 and Time 3, which means these changes were small.

Figure 19. Changes in Case Managers' Service Empowerment Scores (Service Decision and Understanding Consumers subscales) by Time and by Agency



- Service Relationship. There appeared to be few changes in Service Relationship by agency (see Figure 20). When aggregating by intervention group, there was a statistically significant increase in the Service Relationship mean score for the initial intervention group from Time 1 to Time 2, but no significant difference for Time 2 to Time 3. This significant increase was consistent with our hypotheses (see Table 4F in Appendix A page 117). The small changes for the wait-list control group were not significant between Time 1 and Time 2, or between Time 2 and Time 3, which means these changes were small.
- Share Self. Agency A and Agency B mean scores increased at Time 2 and then decreased at Time 3, and Agency C and Agency D scores decreased at both Time 2 and Time 3 (see Figure 20 and Table 4E in Appendix A page 116). When aggregating by intervention group, the initial intervention group showed a significant increase between Time 1 to Time 2, and then a significant decrease between Time 2 and Time 3. While the initial significant increase was consistent with our hypotheses, the follow-up mean score (Time 3) returned to the initial baseline levels (see Table 4F in Appendix A page 117). There were no significant differences across time for the wait-list control group which means the changes were small.

Figure 20. Changes in Case Managers' Service Empowerment Scores (Service Relationship and Share Self Subscales) by Time and by Agency

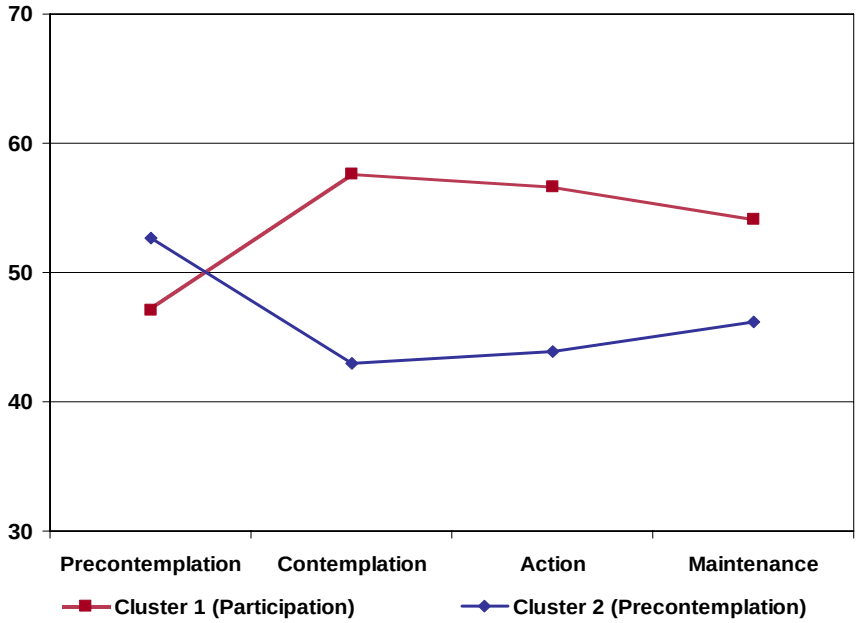


Consumer Readiness for Mental Health Treatment

Consumers rated their motivation or Readiness for Mental Health Treatment using four subscales. The Precontemplation subscale items ask consumers about their sense of personal responsibility towards their mental health. The Contemplation subscale includes items about consumers' acknowledgement that they can impact their mental health. The Action subscale includes statements that indicate actively doing something to improve mental health. And the Maintenance subscale includes items about perceiving the need to continually monitor one's mental health. Consumers rated their perceptions of their Readiness for Mental Health Treatment using a 5-point scale ranging from 1 (strongly disagree) to 5 (strongly agree). See the Measures section for scale information; see Appendix B page 145 for a list of items within subscales.

Consumers responding to Readiness for Mental Treatment questions were grouped into two groups: a Participation Group, and a Precontemplation Group.** Consumers included in the Participation group (Cluster 1) had scores below the mean on the Precontemplation subscale at baseline, and scores above the mean on Contemplation, Action, and Maintenance subscales at baseline (see Figure 21). This pattern of scores may indicate consumers who are more actively involved in their mental health treatment. Consumers included in the Precontemplation group (Cluster 2) had scores above the mean on the Precontemplation subscale at baseline, and scores below the mean on the Contemplation, Action, and Maintenance subscales at baseline. This pattern of scores may indicate consumers who are thinking about their mental health treatment needs but not as actively engaged in their mental health treatment.

Figure 21. Results of Cluster Analyses of Consumer Readiness for Mental Health Treatment Subscales



** Following Heesch, Velasquez, and von Sternberg's (2004) example, we conducted a Cluster Analysis on our sample of mental health consumers. After standardizing subscale scores (to a mean of 50 with a standard deviation of 10), we analyzed results from 2, 3, and 4 cluster solutions using plots and compared our findings to Heesch, Velasquez, and von Sternberg's results. Our two-cluster solution was most similar.

- **Gender.** *T*-tests were conducted on the subscales to determine if there was a significant effect by gender. There were statistically significant differences by gender at baseline for all subscales; males had higher means on Precontemplation, while females had higher means on Contemplation, Action, and Maintenance (see Table 5A in Appendix A page 118).
    - Since males had a higher score on Precontemplation, a greater percentage of males were in the Precontemplation Cluster (66.7%) compared with the Participation Cluster (33.3%). And since females had higher means on Contemplation, Action, and Maintenance subscales, a higher percentage of females were in the Participation cluster (55.8%) compared with the Precontemplation cluster (44.2%).

- **Differences by agency at baseline.** One-way ANOVAs were conducted to determine if there were differences in consumers' Readiness for Mental Health Treatment at baseline (all scores combined, not split by clusters). There was a significant trend[††] ($p < .10$) between agencies on the Maintenance ($F = 2.26$, $p = .082$) subscale, but not on Precontemplation ($F = 1.82$, $p = .143$), Contemplation ($F = 1.82$, $p = .143$), or Action ($F = .038$, $p = .768$) subscales. This trend showed that consumers in Agency A had a higher mean score on Maintenance than consumers in Agency B but were not statistically different than mean scores for consumers in Agency C or Agency D.

- **Dosage.** Correlations were conducted to determine if there was an effect of dosage on Readiness for Mental Health Treatment. Dosage was correlated with Readiness for Mental Health change scores (e.g., Time 2 Contemplation score minus baseline Contemplation score and Time 3 Contemplation score minus Time 2 Contemplation score). Correlations were computed with the change scores for all consumers in the sample, not split by cluster group. We hypothesized that consumers who received more of the intervention (i.e., a higher dose) would have greater Readiness for Mental Health Treatment change scores than consumers who had a lower dose.
    - Correlations were computed at Time 2 for Agency A and Agency B because the consumer and case manager training courses occurred between baseline and Time 2. And correlations were computed at Time 3 for Agency C and Agency D because the consumer and case manager training courses occurred between Time 2 and Time 3. There were no statistically significant correlations between dose and Precontemplation, Contemplation, Action, or Maintenance change scores at Time 2 or Time 3 (see Table 5B in Appendix A page 118). This means that intervention dosage did not influence changes in consumers' perceptions of their Readiness for Mental Health Treatment, or that the changes were very small.

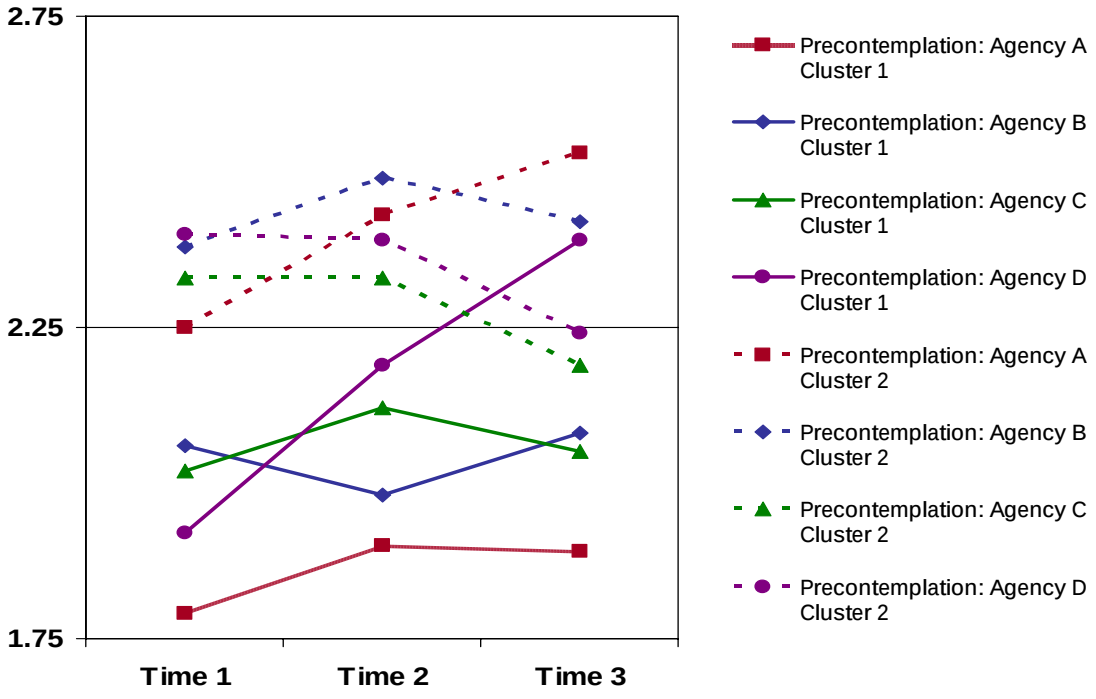
[††] The accepted level for statistical significance is a *p*-value of < .05. Sometimes, when studies are considered exploratory or have smaller sample sizes, statistical trends (a *p*-value between .05 and .10) are also reported. If further studies were conducted with larger samples the statistical analyses would probably be significant at the traditional .05 level.

- **Change over time.** Paired *t*-tests were conducted to determine changes over time in consumers' perceptions of their Readiness for Mental Health Treatment. We hypothesized that consumers in the initial intervention group would have significant differences (increases in Precontemplation mean scores over time) between Time 1 and Time 2, and that the wait-list control group would have significant differences between Time 2 and Time 3 (see Table 5C and 5D in Appendix A page 119). Figures 22 – 25 present the subscale mean scores by time, by Agency, and by cluster (the graphs are spread so that small changes are observable.

    - Precontemplation subsalce. For the Participation Cluster (Cluster 1): The mean score for Agency A decreased at Time 2 and remained fairly stable at Time 3, the mean score for Agency B decreased at Time 2 and then increased at Time 3, the mean score for Agency C increased at Time 2 and then decreased at Time 3, and the mean score for Agency D increased at Time 2 and Time 3. However none of these changes were large enough to be statistically significant for any of the agencies, at Time 2 or Time 3 (see Figure 22 and Table 5C in Appendix A page 119).

      For the Precontemplation Cluster (Cluster 2): The mean score for Agency A increased at Time 2 and Time 3, the mean score for Agency B increased at Time 2 and then decreased at Time 3, and Agency C and Agency D mean scores were relatively unchanged at Time 2 and decreased at Time 3. However none of these changes were large enough to be statistically significant for any of the agencies, at Time 2 or Time 3 (see Figure 22 and Table 5C in Appendix A page 119).

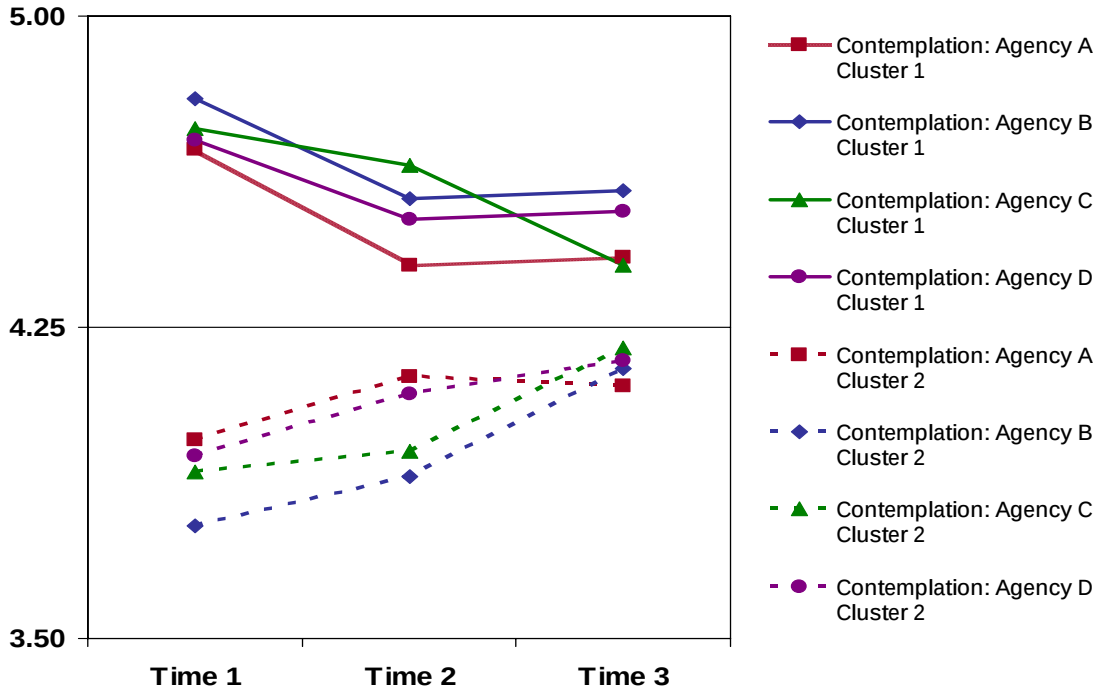
Figure 22. Changes in Consumers' Readiness for Mental Health Treatment Scores (Precontemplation Subscale) by Time, by Cluster, and by Agency



- Contemplation subscale. For the Participation Cluster (Cluster 1): all Agency mean scores decreased at Time 2; however the decreases were statistically significant only for Agency A and Agency B. At Time 3 Agency A, Agency B and Agency D scores changed very little while the mean score for Agency C decreased at Time 3, however this decrease was not statistically significant, meaning the change was small (see Figure 23 and Table 5C in Appendix A page 119).

  For the Precontemplation Cluster (Cluster 2): The mean score for Agency A increased at Time 2 but remained relatively stable at Time 3, and Agency B, Agency C, and Agency D mean scores increased at Time 2 and Time 3. The only statistically significant difference was for the increase in mean score for Agency B from Time 2 to Time 3, which means the other mean score changes were very small (see Figure 23 and Table 5C in Appendix A page 119).

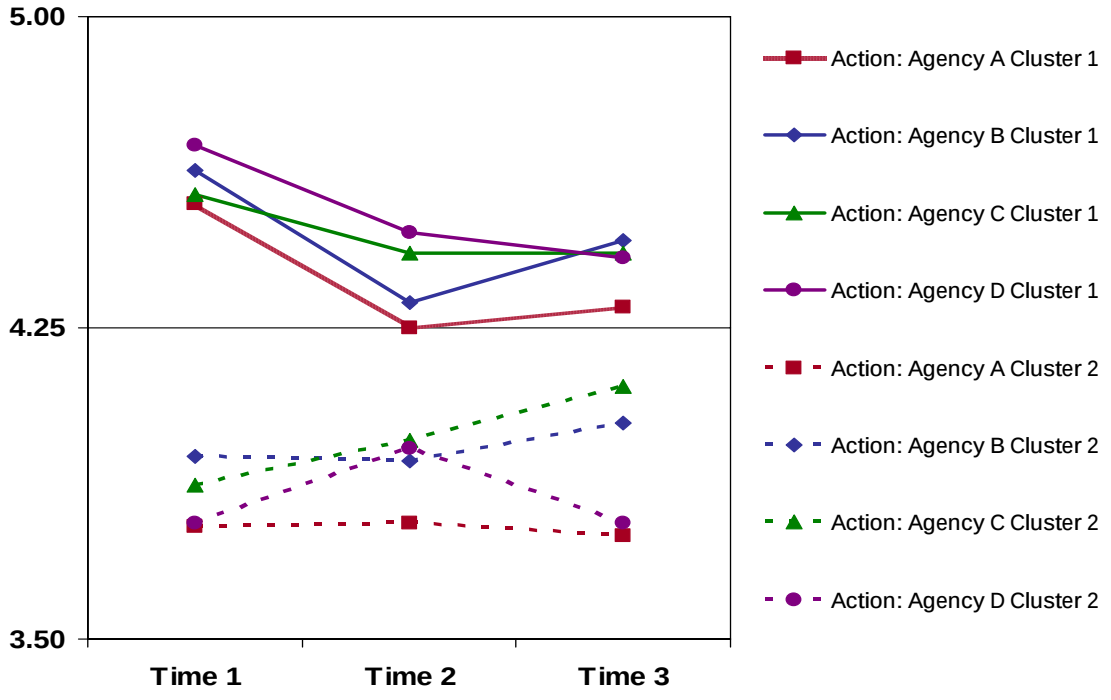
Figure 23. Changes in Consumers' Readiness for Mental Health Treatment Scores (Contemplation Subscale) by Time, by Cluster, and by Agency



- Action subscale . For the Participation Cluster (Cluster 1): All Agency mean scores decreased from baseline to Time 2; however, the decreases were statistically significant only for Agency A and Agency B, which means the other changes were small. At Time 3 Agency A and Agency B mean scores increased slightly, the means score for Agency C did not change, and the mean score for Agency D decreased slightly; however these differences were not significant at Time 3 which means they were very small (see Figure 24 and Table 5D in Appendix A page 120).

  For the Precontemplation Cluster (Cluster 2): Agency A mean scores changed very little baseline through Time 3, the Agency B mean score remained similar at Time 2 and then increased at Time 3, Agency C mean scores increased at both Time 2 and Time 3, and the mean score for Agency D increased at Time 2 and then decreased at Time 3. The only statistically significant differences were for the increase in the mean score for Agency D at Time 2 and the increase in the mean score for Agency B at Time 3; all other changes in mean scores were very small (see Figure 24 and Table 5D in Appendix A page 120).

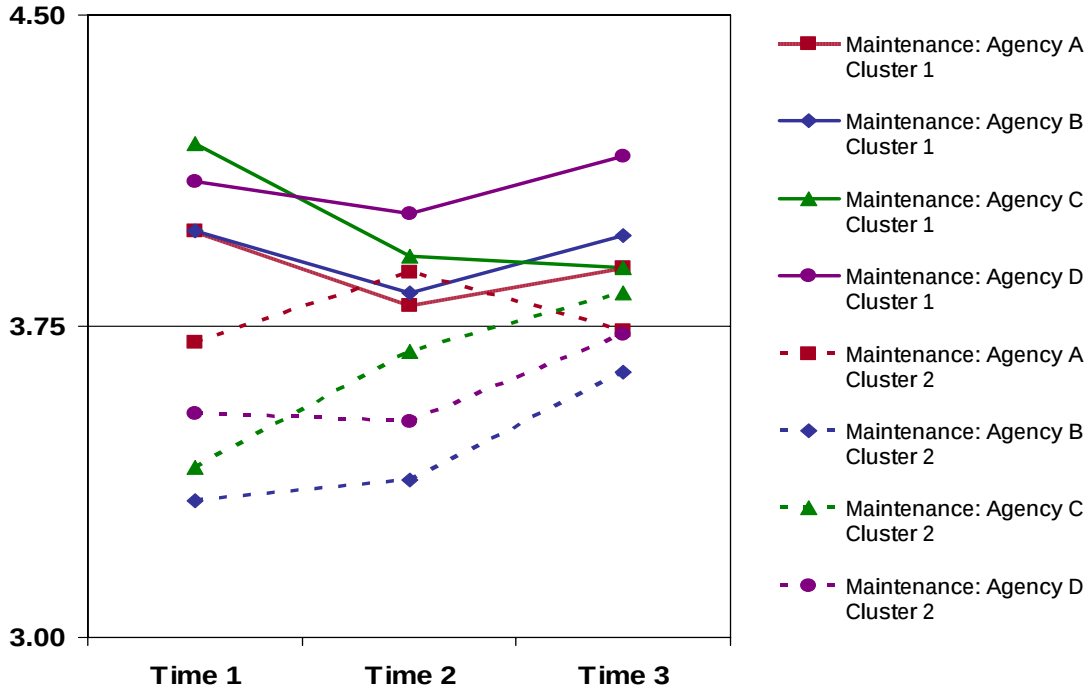
Figure 24. Changes in Consumers' Readiness for Mental Health Treatment Scores (Action Subscale) by Time, by Cluster, and by Agency



- Maintenance subscale. For the Participation Cluster (Cluster 1): Agency A, Agency B, and Agency D mean scores decreased at Time 2 and increased at Time 3. The mean score for Agency C decreased at both Time 2 and Time 3. However none of these changes were large enough to be statistically significant for any of the agencies, at Time 2 or Time 3 (see Figure 25 and Table 5D in Appendix A page 120).

  For the Precontemplation Cluster (Cluster 2): The mean score for Agency A changed relatively little, and changes in means were not statistically significant. The mean score for Agency B increased slightly at Time 2, but was not significant; however, the mean score increase at Time 3 was statistically significant. For Agency C both the increase in the mean score at Time 2 and Time 3 was statistically significant. The mean score for Agency D decreased minimally at Time 3, and then increased at Time 3, which was statistically significant (see Figure 25 and Table 5D in Appendix A page 120).

Figure 25. Changes in Consumers' Readiness for Mental Health Treatment Scores (Maintenance Subscale) by Time, by Cluster, and by Agency

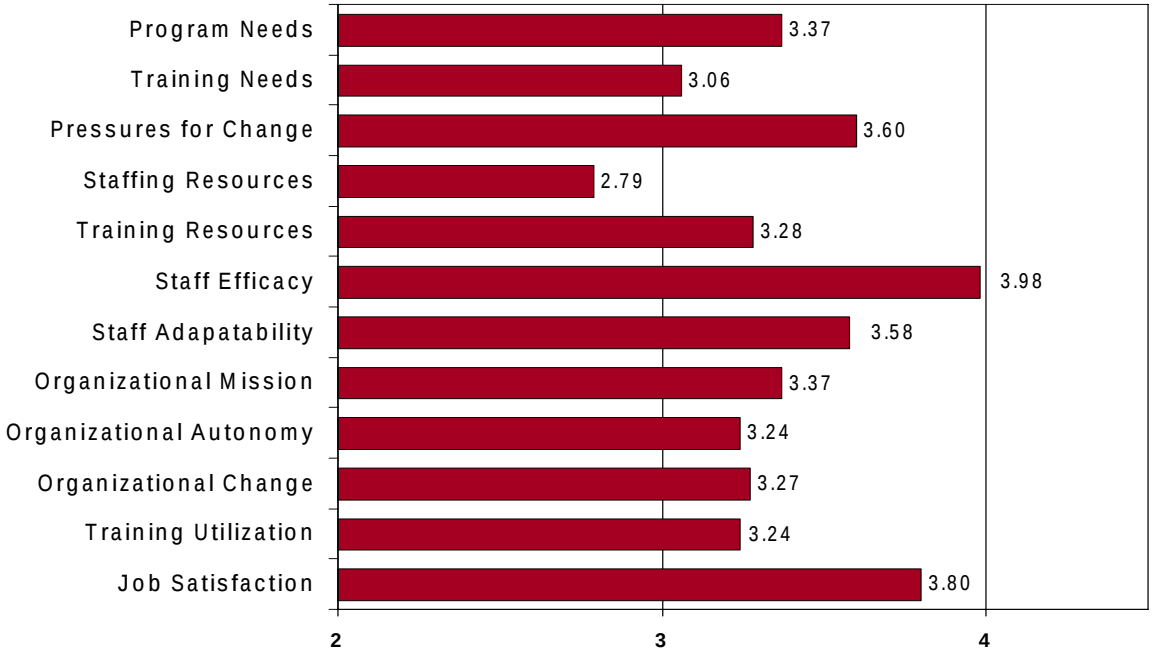


A future report will examine Readiness for Mental Health Treatment in greater detail with this sample and how it may be related with Service Empowerment, and Agency Orientation toward Recovery, for example.

Organizational Readiness to Change

Case managers rated their organizations' readiness to change using 12 subscales. Case managers rated their organizations' Program Needs, Training Needs, Pressures for Change, Staffing Resources, Training Resources, Staff Efficacy, Staff Adaptability, Organizational Mission, Organizational Autonomy, Organizational Change, and Job Satisfaction, using a 5-point scale ranging from 1 (strongly disagree) to 5 (strongly agree). Case managers also rated their organizations' utilization of training on a 5-point scale ranging from 1 (never) to 5 (almost always). See the Measures section for additional scale information; see Appendix B page 146 for a list of items within scales. Figure 26 displays the baseline means for the total sample (the graph is spread so that small differences are observable). A discussion of these organizational factors follows.

Figure 26. Baseline Case Managers' responses of Organizational Motivational Readiness, Mean Scores (Total Sample)



- Case managers rated Staff Efficacy and Job Satisfaction higher than the other organizational factors at baseline. These mean scores, close to 4 (agree) , indicated most case managers agree they have the necessary skills to be effective in their positions, and that they like their jobs, feel appreciated, and value their work.
- Case managers rated Pressures for Change slightly lower than Efficacy and Job Satisfaction, midway between 3 (uncertain) and 4 (agree). Means for the individual items on the Pressures for Change scale indicated that the highest pressures for change are from funding and oversight sources ($M = 4.26$), accrediting or licensing authorities ($M = 4.10$), agency supervisors or managers ($M = 3.92$), and agency board members ($M = 3.90$). Case managers reported the lowest pressure for change within the agency (lowest mean) was from consumers ($M = 2.61$).

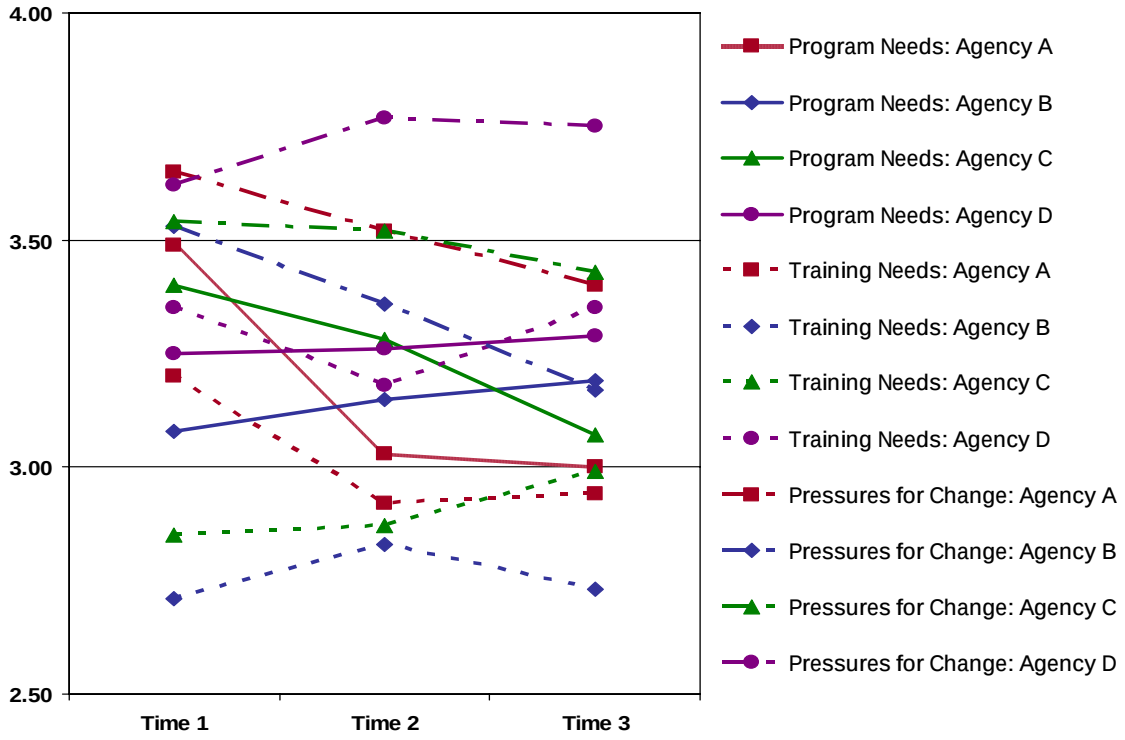
- Staff Adaptability was also slightly lower than Efficacy and Job Satisfaction, midway between 3 (uncertain) and 4 (agree); this mean score may indicate that case managers perceive themselves as somewhat able/willing to try new ideas and procedures within the agency.
- Case managers rated Program Needs slightly above 3 (uncertain). When looking at individual items, case managers rated developing effective group sessions highest (M = 3.59). However, all other program needs (i.e., assessing consumer needs, matching needs and services, consumer participation at the agency, case management quality, using consumer assessments to guide decisions and document agency effectiveness) also rated well (range between M = 3.23 and M = 3.45).
- Case managers rated Training Needs slightly above 3 (uncertain). Case managers rated improving consumer thinking and problem solving highest (M = 3.52). Increasing consumer participation (M = 3.45) and improving behavioral management of consumers (M = 3.45) also ranked high. The lowest rated training needs were for monitoring consumer progress (M = 2.58) and improving rapport with consumers (M = 2.23).
- For Training Utilization, case managers rated how often new ideas from workshops or trainings were encouraged or adopted by the agency. The baseline score for the total sample was between a score of 3 (sometimes), and 4 (a lot). Case managers perceived that agencies utilize new training methods sometimes.
- Case managers' ratings of Organizational Mission, Organizational Autonomy, and Organizational Change were scores slightly above 3 (uncertain), which may indicate case managers believe the organizational climate has room for improvement.
- Case managers rated Training Resources slightly above 3 (uncertain), which may indicate case managers have access to some training and conferences but may appreciate additional opportunities.
- Staffing Resources had the lowest mean score of the organizational factors, indicating case managers believe that to effectively perform their jobs, there is a need for additional staff, skill training, and more time with consumers.

- **Gender.** *T*-tests were conducted on the subscales to determine if there was a significant effect by gender. There were no statistically significant differences by gender at baseline which means that males and females were similar (see *t*-test results in Table 6A in Appendix A page 121).

- **Differences by intervention group at baseline.** *T*-tests were conducted to determine if there were differences in case managers' responses of organizational factors at baseline. Table 6B and Table 6C present the means by agency (in Appendix A pages 122 and 123 and see also Figure 27 and Figure 28; the graphs are spread so that small changes are observable). Table 6D and Table 6E present the means and statistical tests by intervention group. Eleven of 12 organizational factors were not statistically different between intervention groups at baseline, which means the differences in mean scores were small. However, the wait-list control group had a higher mean score on Staffing Resources at baseline than the initial intervention group (see Table 6D and Table 6E in Appendix A pages 124 and 125).

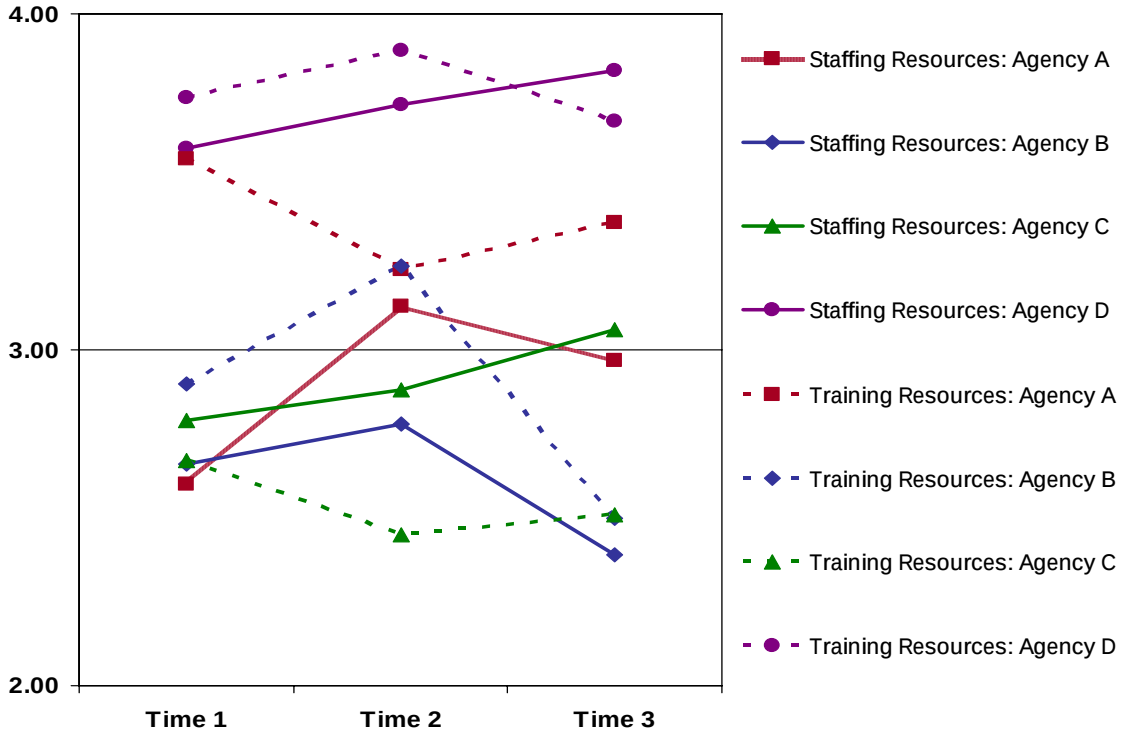
- **Change over time.** Paired *t*-tests were conducted to determine changes over time in case managers' perceptions of their organizational climate We hypothesized that case managers in the initial intervention group would have significant differences (increases in Organizational Readiness subscales mean scores over time) between baseline and Time 2, and that the wait-list control group would have significant differences between Time 2 and Time 3 (see Figures 27 through 31; the graphs are spread so that small changes are observable).
    - Program Needs. In Figure 27 Agency A and Agency C Program Needs mean scores decreased over time, and for Agency B and Agency D mean scores had small increases over time. When aggregating by intervention group, the only statistically significant difference was a decrease in scores from baseline to Time 2 for the initial intervention group. There were no significant differences for either group comparing Time 2 with Time 3 which means the changes were very small (see Table 6D in Appendix A page 124).
    - Training Needs. In Figure 27 Agency A, Agency C, and Agency D Training Needs mean scores decreased from Time 1 to Time 2 and increased at Time 3; and for Agency B mean scores increased at Time 2 followed by a small decrease at Time 3. When aggregating by intervention group there were no statistically significant differences for either the initial intervention group or the wait-list control group which means the changes were very small (see Table 6D in Appendix A page 124).

Figure 27. Changes in Case Managers' Perceptions of Organizational Motivational Readiness (Program Needs, Training Needs, and Pressures for Change Subscales), Mean Scores by Time and by Agency



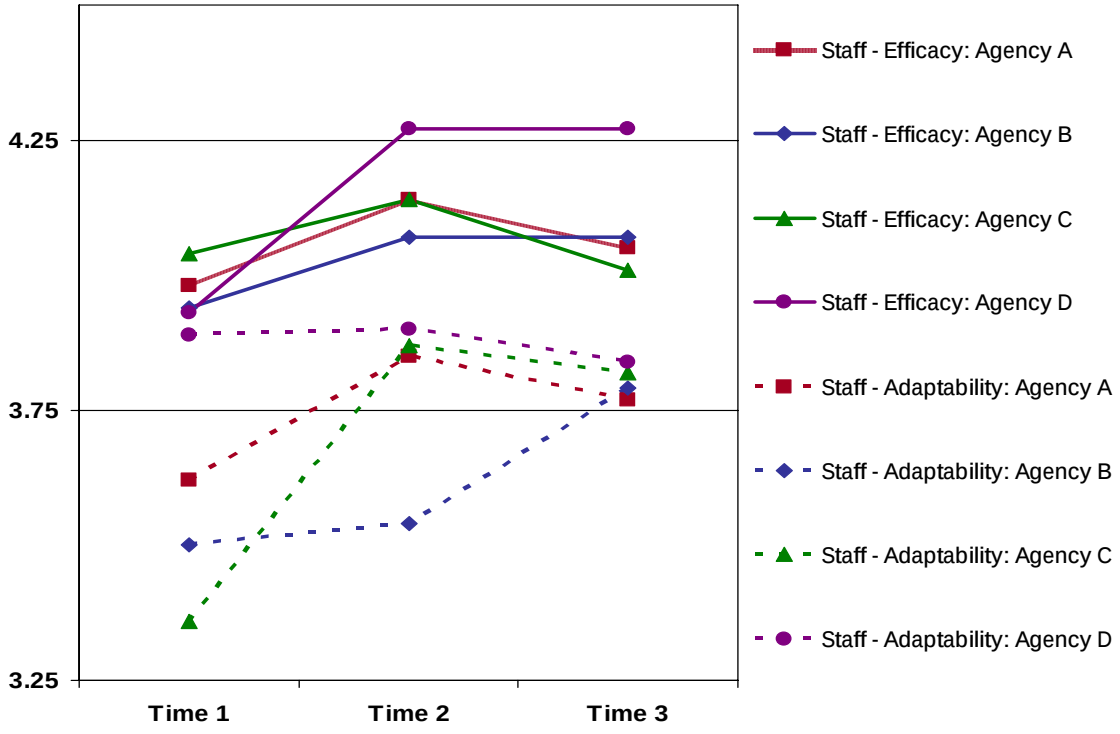
- Pressures for Change. In Figure 27, Agency A, Agency B, and Agency C Pressures for Change mean scores decreased over time; the mean score for Agency D increased at Time 2 and then slightly decreased at Time 3. When combined by intervention group, there were no significant differences for either group over time meaning these differences were very small (see Table 6D in Appendix A page 124).
- Staffing Resources. In Figure 28, Agency A and Agency C Staffing Resource mean scores increased over time, while Agency B and Agency D mean scores increased at Time 2 then decreased at Time 3. Consistent with our hypotheses, there was a statistically significant increase in Staffing Resource mean scores from baseline to Time 2 for the initial intervention group, and a significant increase in mean scores for the wait-list control group from Time 2 to Time 3 (see Table 6D in Appendix A page 124).
- Training Resources. In Figure 28, Agency A and Agency C Training Resource mean scores decreased at Time 2 and then increase almost back to baseline levels at Time 3; for Agency B and Agency D, mean scores increased at Time 2 and decreased at Time 3. When aggregating by intervention group, for the wait-list control group, there was a statistically significant decrease from baseline to Time 2. There were no significant differences for either group comparing Time 2 with Time 3 which means the changes were very small (see Table 6D in Appendix A page 124).

Figure 28. Changes in Case Managers' Perceptions of Institutional Resources (Staffing and Training Subscales), Mean Scores by Time and by Agency



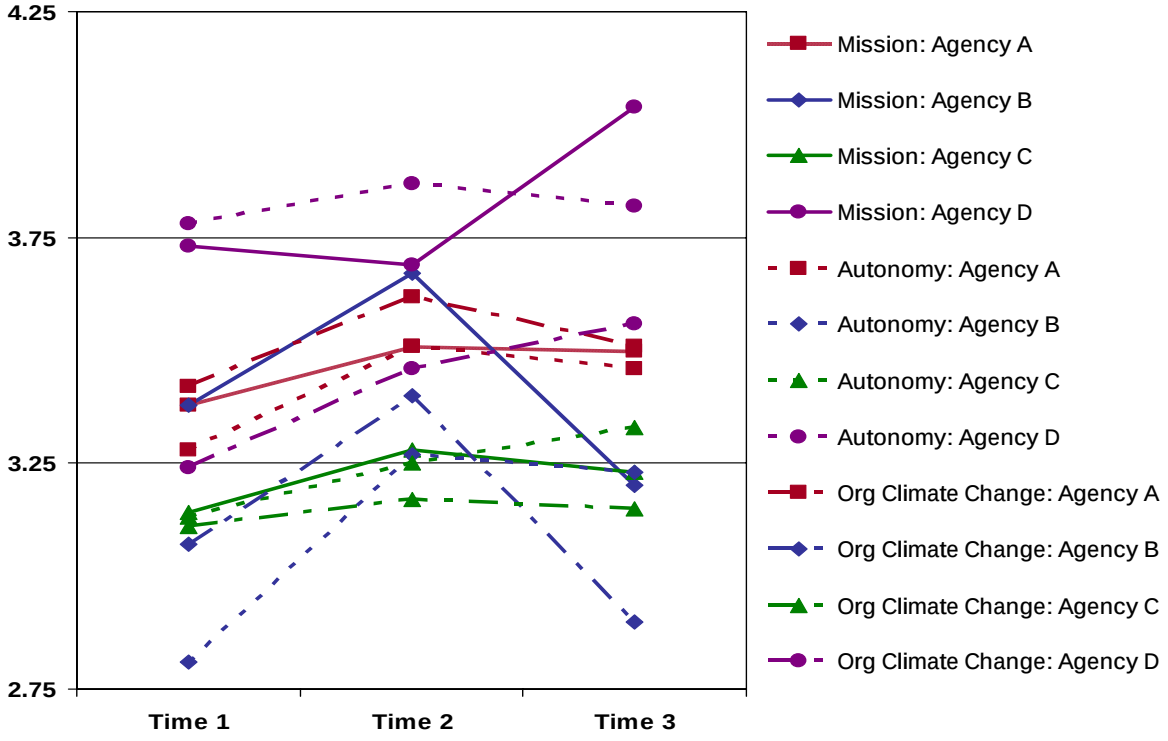
- Staff Efficacy. In Figure 29, for all agencies, Staff Efficacy mean scores increased from baseline to Time 2 and then maintained or decreased at Time 3. When aggregating by intervention group there was only one statistically significant difference, for the wait-list control group the increase in mean scores from Time 1 to Time 2 was statistically significant from baseline to Time 2. There were no significant differences for either group comparing Time 2 with Time 3 which means the changes were very small (see Table 6D in Appendix A page 124).
- Staff Adaptability. In Figure 29, Staff Adaptability mean scores across all agencies increased from baseline to Time 2, and then decreased slightly at Time 3 for three of the agencies. When aggregating by intervention group, there was a statistically significant difference for the wait-list control group; scores increased from baseline to Time 2. There were no significant differences for either the initial intervention group or the wait-list control group comparing Time 2 with Time 3 which means the changes were small (see Table 6E in Appendix A page 125).

Figure 29. Changes in Case Managers' Perceptions of Organizational Staff Attributes (Efficacy and Adaptability Subscales), Mean Scores by Time and by Agency



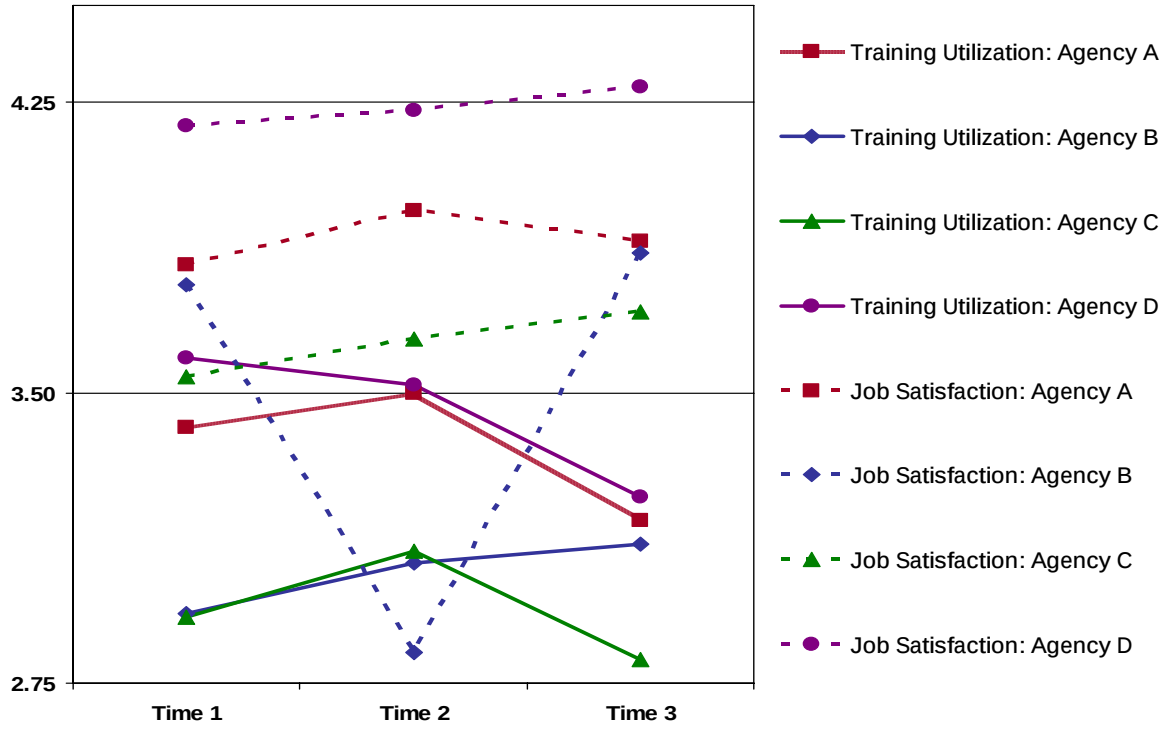
- Organizational Mission. In Figure 30, mean scores for Agency Mission increased from baseline to Time 2 and then decreased at Time 3, for Agency A, Agency B, and Agency C, while scores for Agency D increased at Time 3. When aggregating by intervention group, the only statistically significant difference was for an increase in mean score from baseline to Time 2 for the wait-list control group. There were no significant differences for either group comparing Time 2 with Time 3 which means the changes were very small (see Table 6E in Appendix A page 125).
- Organizational Autonomy and Organizational Change. In Figure 30, across agencies case managers' perception of Autonomy and Change within the organization (mean scores) increased slightly at Time 2 and then decreased at Time 3. When aggregating by intervention group, there were no significant differences for either the initial intervention group or the wait-list control group over time, which means the changes were very small (see Table 6E in Appendix A page 125).

Figure 30. Changes in Case Managers' Perceptions of Organizational Climate (Mission, Autonomy, and Change), Mean Scores by Time and by Agency



- Training Utilization. In Figure 31, Agency A and Agency C Training Utilization mean scores increased at Time 2 and decreased at Time 3 Agency B mean scores increased slightly at both Time 2 and Time 3, and Agency D mean scores decreased at both Time 2 and Time 3. When aggregating by intervention group the only statistically significant difference was for the wait-list control group, the mean score increased between baseline and Time 2. There were no significant differences for either the group comparing Time 2 with Time 3 which means the changes were very small (see Table 6E in Appendix A page 125).
- Job Satisfaction. In Figure 31, there were very minimal changes in Job Satisfaction mean scores over time for Agency A, Agency C, and Agency D. Agency B scores decreased at Time 2 and then increased back to baseline levels at Time 3. When aggregating by intervention group these score changes were not significant; there were no significant differences for either group over time which means the changes were very small (see Table 6E in Appendix A page 125).

Figure 31. Changes in Case Managers' Perceptions of Training Utilization and Job Satisfaction, Mean Scores by Time and by Agency



In the current study, case managers perceived external sources as strong pressures for change. And although case managers rated staffing resources lowest, they rated their efficacy highest. Additionally, case managers rated their job satisfaction second highest of all the organizational factors, signifying they like their jobs, feel appreciated, and value their work. This is particularly salient as higher job satisfaction has been associated with lower burnout and subsequently fewer turnover intentions. These results indicate the need for further study on how these organizational factors may be related to consumers' empowerment in their service decisions and relationships.

Agency Recovery Orientation

Consumers. Agency Recovery Orientation was rated by consumers and consisted of five subscales: The Life Goals subscale included items about staff encouragement of consumers to develop and pursue individual life goals. The Involvement subscale included items about how involved consumers in recovery are in the development of agency programs or services, or their involvement at the agency management level. The Diversity of Treatment Options subscale included items about the variety of treatment options available (e.g., peer support, non-mental health activities). The Choice subscale included items about access to personal records, lack of staff coercion, choices about service providers, and staff respect of consumer choices. And the Individually-Tailored Services subscale included items about how consumers' services fit with the consumer's cultural background. Consumers rated their perceptions of the agencies' recovery-promoting environment using a 5-point rating scale ranging from 1 (strongly disagree) to 5 (strongly agree). See the Measures section for scale information; see Appendix B page 149 for a list of items within scales.

- At baseline, consumers (combined across agencies) rated agencies a little higher in Life Goals ($M = 3.79$), Choice ($M = 3.90$), and Individually-Tailored Services ($M = 3.84$) than Involvement ($M = 3.20$) and Diversity of Treatment Options ($M = 3.39$). These mean scores, close to 4 (agree) indicate most consumers believe that staff at the agency encourage consumers' goal choices, believe in their ability to recover, and offer or tailor services to fit the consumers' cultural background.

- **Gender.** *T*-tests were conducted on the subscales to determine if there was a significant effect by gender. There were no statistically significant differences by gender at baseline which means that males and females were similar (see *t*-test results in 7A in Appendix A page 126).

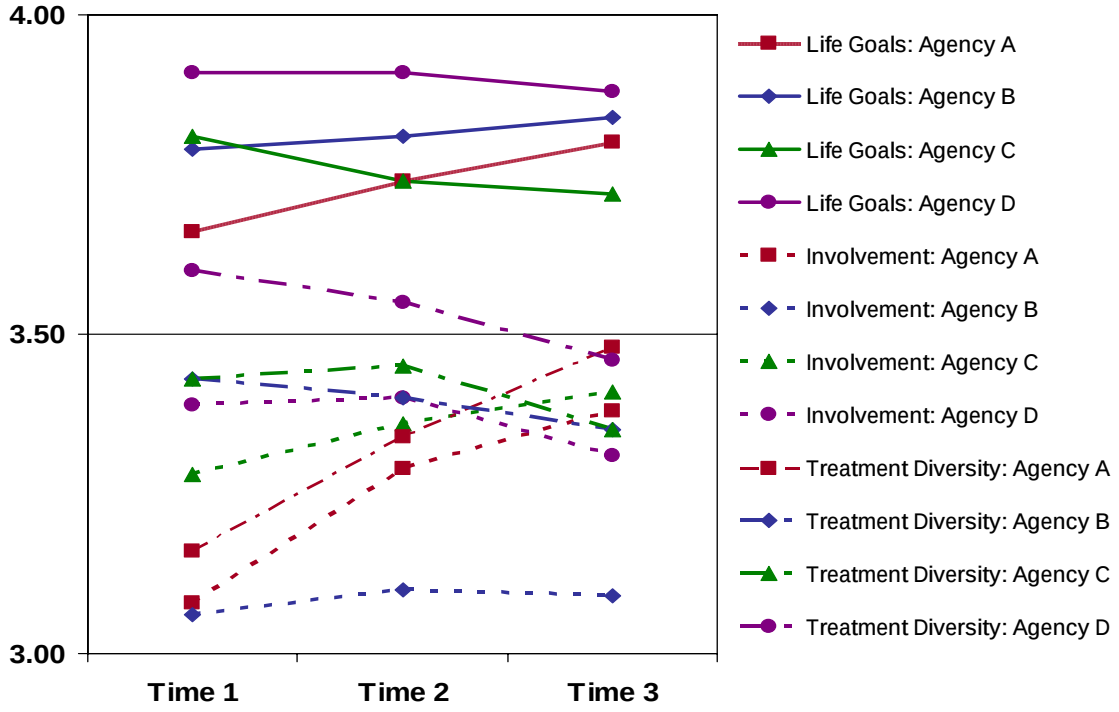
- **Differences by agency at baseline.** One-way ANOVAs were conducted to determine if there were differences in consumers' ratings of Agency Recovery Orientation at baseline. There were some statistically significant differences between agencies; Comparisons by agency showed that Agency D had a higher mean scores on Diversity of Treatment Options($F = 3.43$, $p = .018$), Choice ($F = 3.25$, $p = .022$), a Individually Tailored Services ($F = 4.09$, $p = .007$), and total score ($F = 4.18$, $p = .007$). Agency D scores were statistically higher only compared with Agency A, but not statistically higher than Agency B or Agency C. There were no significant differences between agencies on Life Goals or Involvement subscales (see Table 7C and Table 7D in Appendix A pages 127 and 128).

- **Dosage.** Correlations were conducted to determine if there was an effect of dosage on consumers' perception of the Agency Recovery Orientation. Dosage was correlated with change scores (e.g., Time 2 Life Goals score minus baseline Life Goals score, and Time 3 Life Goals score minus Time 2 Life Goals score). We hypothesized that consumers who received more of the intervention (i.e., a higher dose) would have greater Agency Recovery Orientation change scores than consumers who had a lower dose.

- Correlations were computed at Time 2 for Agency A and Agency B because the consumer and case manager training courses occurred between baseline and Time 2. And Correlations were computed at Time 3 for Agency C and Agency D because the consumer and case manager training courses occurred between Time 2 and Time 3. There were no statistically significant correlations for any of the agencies on any of the subscales or the total score (see Table 7B in Appendix A page 126). This means that intervention dosage did not influence changes consumers' perceptions of the Agencies' Recovery Orientation, or that the changes were very small.

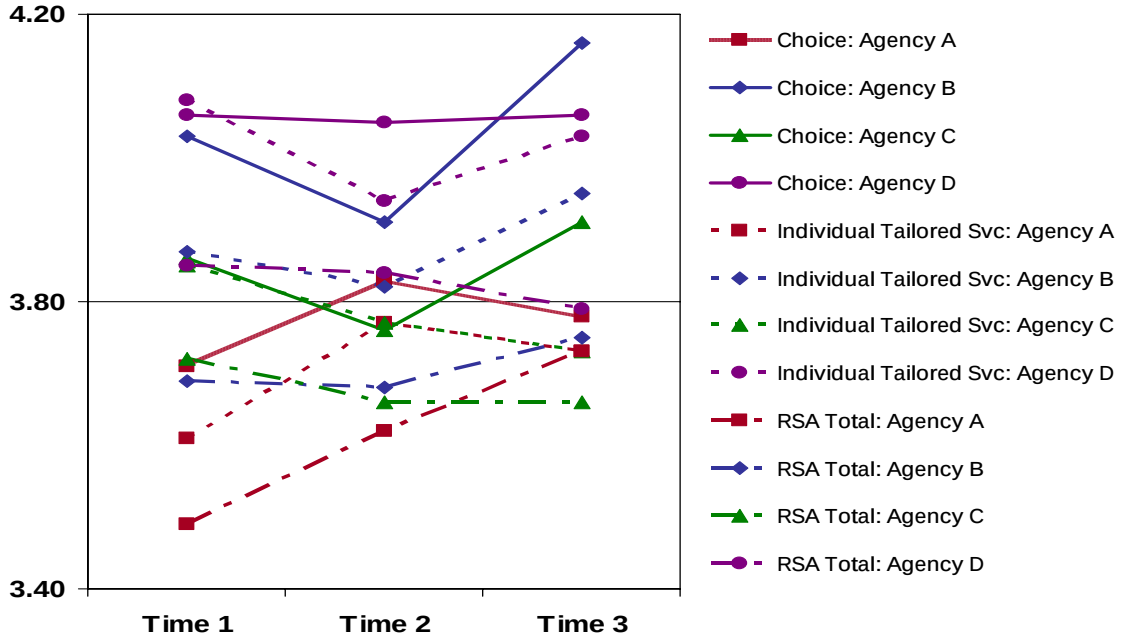
- **Change over time.** Paired *t*-tests were conducted to determine changes over time for consumers' ratings of the Agency Recovery Orientation. We hypothesized that consumers in the initial intervention group would have significant differences (increases in Agency Recovery Orientation mean scores over time) between baseline and Time 2, and that the wait-list control group would have significant differences between Time 2 and Time 3. Figures 32 and 33 present the mean scores by time and Agency (the graphs are spread so that small changes are observable; see Table 7C and Table 7D in Appendix A pages 127 and 128).
  - Life Goals. Figure 32 shows that Agency A and Agency B Life Goals mean scores increased slightly at Time 2 and Time 3; and Agency C and Agency D mean scores decreased slightly at Time 2 and Time 3. However, there were no statistically significant differences for any of the agencies over time which means these changes were very small.

Figure 32. Changes in Agency Recovery Orientation Scores (Consumer Responses: Life Goals, Involvement, and Treatment Diversity) by Time and by Agency



- Involvement. Figure 32 shows that the Involvement mean score for Agency A increased at Time 2 and Time 3, the mean score for Agency B remained relatively unchanged over time, the mean score for Agency C increased slightly at Time 2 and Time 3, and the mean score for Agency D decreased slightly between Time 2 and Time 3. However, none of these mean score changes were statistically significant for any of the agencies over time which means these changes were very small.
- Diversity of Treatment Options. Figure 32 shows the pattern of mean scores for Diversity of Treatment Options by agency was very similar to the pattern in the Involvement subscale mean scores, with the mean score for Agency A increasing, the mean score for Agency B remaining relatively unchanged, and the mean score for Agency D decreasing at Time 3, although the pattern was different for Agency C, the mean score increased at Time 2 and Time 3. Again, there were no significant differences over time for any of the agencies which means these changes were very small.
- Choice. Figure 33 shows that mean score for Choice increased at Time 2 and then decreased at Time 3 for Agency A, Agency B and Agency C mean scores decreased at Time 2 and increased at Time 3, and the mean scores for Agency D were fairly unchanged over time. None of the score changes were significant between baseline and Time 2 for any of the agencies. For Agency B, the increase from Time 2 to Time 3 was statistically significant (see Table 7D); there were no significant differences between Time 2 and Time 3 for Agency A, Agency C, and Agency D which means these differences were small.

Figure 33. Changes in Agency Recovery Orientation Scores (Consumer Responses: Choice, Individually Tailored Services, and Total score) by Time and by Agency



- Individually-Tailored Services. Figure 33 shows that Agency A scores increased over time. The mean score for Agency B increased Time 2 to Time 3, the means score for Agency C decreased slightly at Time 2 and remained the same at Time 3, and the mean score for Agency D decreased at Time 3. The only statistically significant difference was for the decrease in mean score between baseline and Time 2 for Agency D (see Table 7D). There were no significant differences between baseline and Time 2 for Agency A, Agency B, or Agency C; and there were no significant differences between Time 2 and Time 3 for any of the agencies which means these changes were very small.
- Agency Recovery Orientation Total score. For the combined Agency Recovery Orientation score, the mean score for Agency A increased at Time 2 and Time 3, the mean score for Agency B remained the same at Time 2 and increased at Time 3, the mean score for Agency C decreased at Time 2 and remained the same at Time 3, and the mean score for Agency D remained similar at Time 2 and decreased at Time 3. However there was only one statistically significant difference, the decrease in the mean score between baseline and Time 2 for Agency D (see Table 7C). There were no significant differences between baseline and Time 2 for Agency A, Agency B, or Agency C; and there were no significant differences between Time 2 and Time 3 for any of the agencies which means these changes were very small.

Case Managers. Agency Recovery Orientation was also rated by case managers, using similar items to the consumer ratings, and consisted of the same five subscales. The Life Goals subscale includes items about staff encouragement of consumers to develop and pursue individual life goals. The Involvement subscale includes items about how involved consumers in recovery are in the development of agency programs or services, or their involvement at the agency management level. The Diversity of Treatment Options subscale includes items about the variety of treatment options available (e.g., peer support, non-mental health activities). The Choice subscale includes items about access to personal records, lack of staff coercion, choices about service providers, and staff respect of consumer choices. And the Individually-Tailored Services subscale includes items about how consumers' services fit with the consumer's cultural background. Case managers rated their perceptions of the agencies' recovery-promoting environment using the same 5-point rating scale consumers used, ranging from 1 (strongly disagree) to 5 (strongly agree). See the Measures section for scale information; see Appendix B page 150 for a list of items within scales).

- At baseline, case managers, combined across agencies, rated Choice ($M = 3.86$), and Life Goals ($M = 3.75$), higher than Diversity of Treatment Options ($M = 3.49$), and Individually-Tailored Services ($M = 3.33$). These means scores, close to 4 (agree) indicate most case managers believe that staff at the agency encourage consumers to make life plans beyond symptom management, to encourage new things, to get involved in the community, and discuss their recovery plans, not just their treatment.

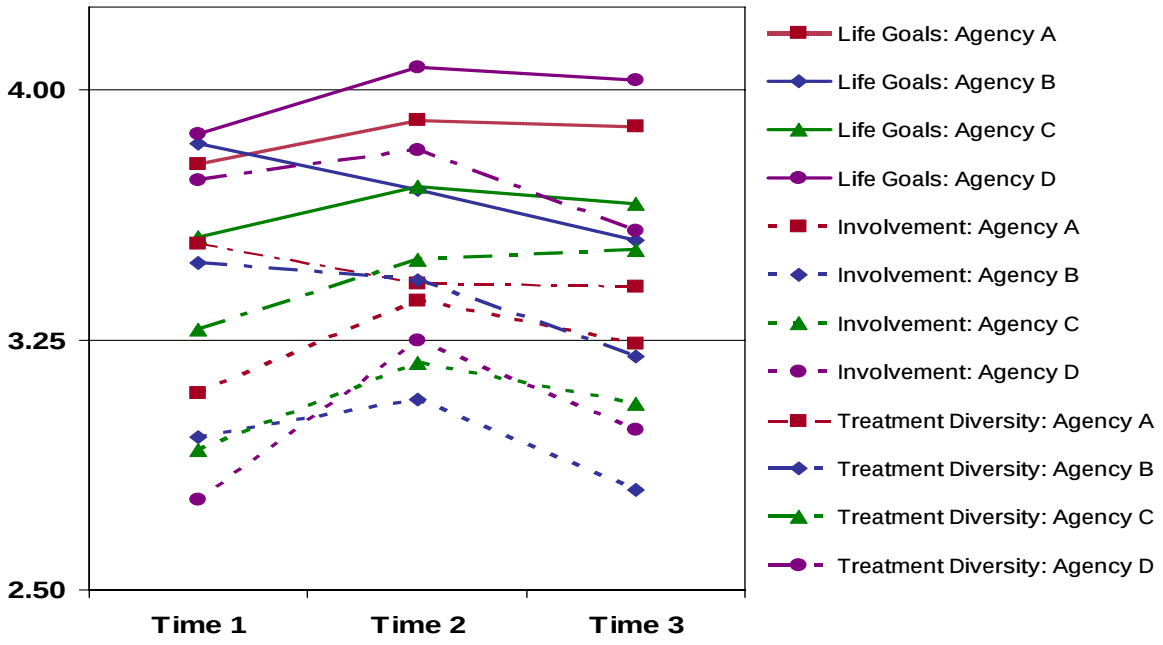
- Across agencies, case managers rated consumer Involvement within the agency at baseline ($M = 2.99$) lower than the other subscales, closest to an average of 3 (uncertain). Case managers' ratings may indicate that agencies could involve consumers more in development of programs, or including them on advisory groups.

- **Gender.** *T*-tests were conducted on the subscales to determine if there was a significant effect by gender. There were no statistically significant differences by gender at baseline which means that males and females were similar (see *t*-test results in Table 7A in Appendix A page 126).

- **Differences by intervention group at baseline.** *T*-tests were conducted to determine if there were differences in case managers' perceptions of the agencies' orientation toward recovery at baseline. Table 7E presents the means by agency; Table 7F presents the means and statistical tests by intervention group (see Appendix A page 129; see also Figure 34 and Figure 35). There were no significant differences between the Intervention groups at baseline for any of the Agency Recovery Orientation subscales which means across agencies, case managers rated the subscales similarly.

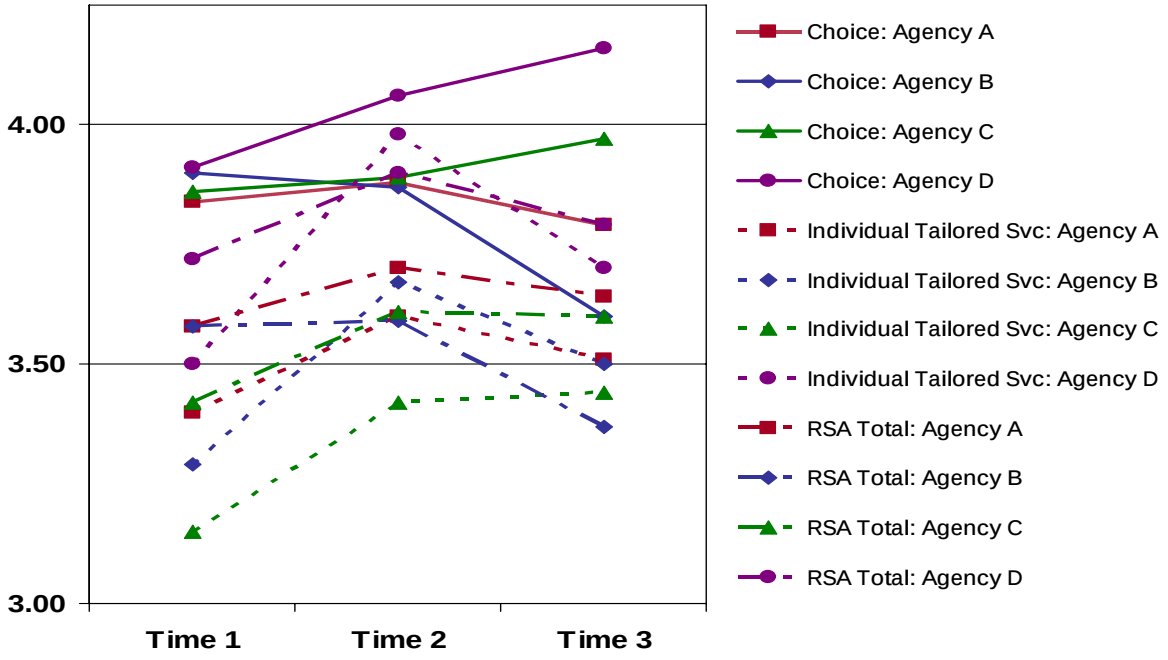
- **Change over time.** Paired *t*-tests were conducted to determine changes over time in case managers' perceptions of their agencies' orientation toward consumer recovery (see Table 7F in Appendix A page 130). We hypothesized that case managers in the initial intervention group would have significant differences (increases in Agency Recovery Orientation mean scores over time) between baseline and Time 2, and that the wait-list control group would have significant differences between Time 2 and Time 3 (see Figures 34 and 35; the graphs are spread so that small changes are observable).

Figure 34. Changes in Agency Recovery Orientation Scores (Case Manager Responses: Choice, Individually Tailored Services, and Total score) by Time and by Agency



- Life Goals. In Figure 34, for Agency A, Agency C, and Agency D, there were small increases in Life Goals mean scores at Time 2 and small decreases at Time 3. The mean score for Agency B decreased slightly over time.
- Involvement and Individually-Tailored Services. In Figure 34, across all agencies, there were increases in case managers' ratings of consumer Involvement, and Individually-Tailored Services, from baseline to Time 2, and decreases in ratings from Time 2 to Time 3.
- Diversity of Treatment Options. In Figure 34, the mean score for Agency A showed a small decrease from baseline to Time 2 and then relatively little change at Time 3, the mean score for Agency B showed small decreases over time, the mean score for Agency C showed a small increase from baseline to Time 2 and then a small increase at Time 3, and the mean score for Agency D showed a small increase from baseline to Time 2 and then a decrease at Time 3.
- Choice. In Figure 35, case managers' ratings of choice decreased by Time 3 for Agency A and Agency B and increased by Time 3 for Agency C and Agency D.
- When aggregating by intervention group, there were no significant differences for any of the Agency Recovery Orientation subscales for either the initial intervention group or the wait-list control group, comparing baseline with Time 2 or Time 2 with Time 3 (see Table 7F in Appendix A page 130). The lack of significant effects over time by intervention group, for any of the subscales, means that any differences were very small, too small to be statistically meaningful.

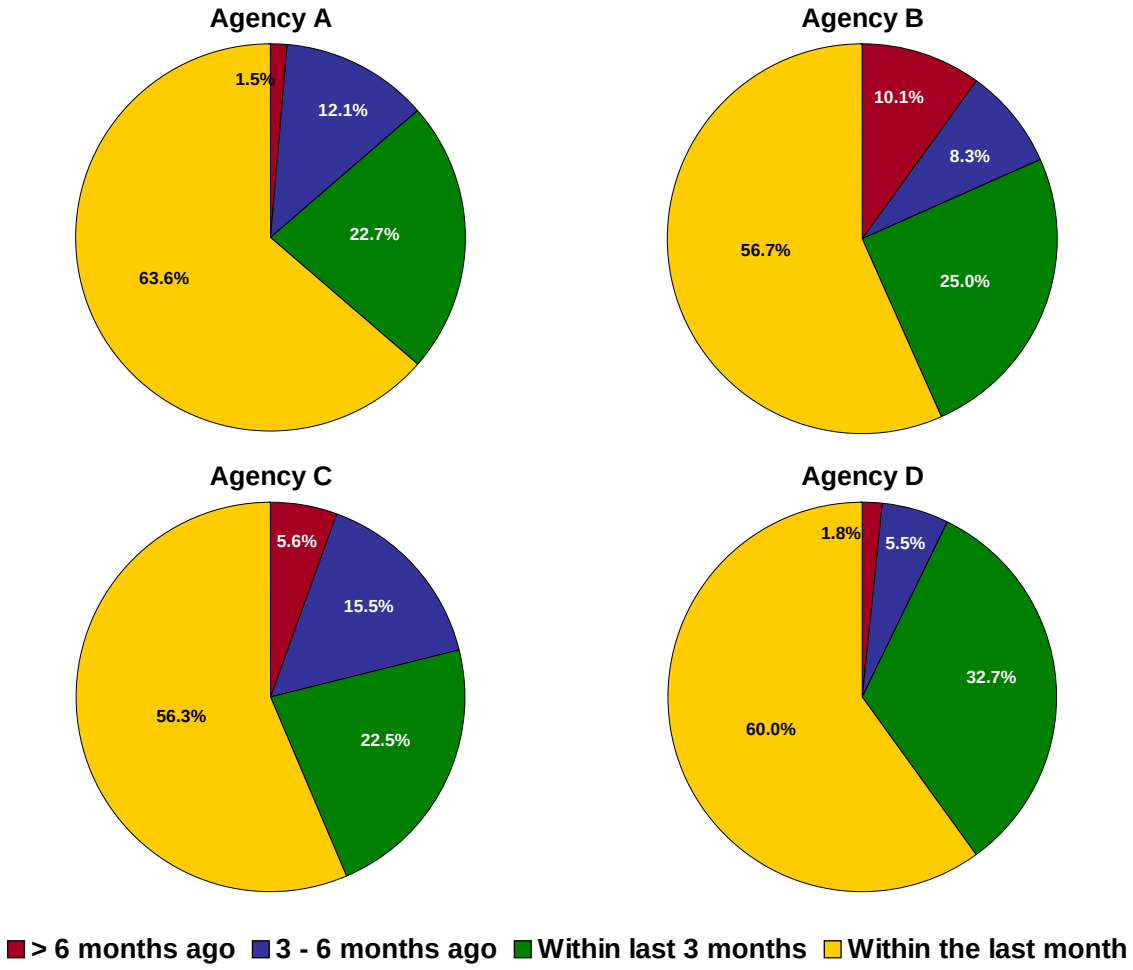
Figure 35. Changes in Agency Recovery Orientation Scores (Case Manager Responses: Life Goals, Involvement, and Treatment Diversity) by Time and by Agency



Satisfaction with Treatment Planning

Consumers. Figure 36 presents the results of chi-square analyses on consumers' responses of how recently consumers discussed their treatment plan with their case manager. Over three-quarters of consumers reported discussing treatment plans within the last three months. There were no statistically significant differences between the agencies at baseline which means any differences were small.

Figure 36. Consumers' Perceptions of Treatment Planning Recency at Baseline



- **Frequency of Talking with Case Manager.** One-way ANOVAs were conducted to determine if there were differences in consumers' responses of how often they talked with their case managers about their treatment plan. There were no statistically significant differences between the agencies at baseline (Total sample: $M = 2.46$, $SD = 1.00$; see Table 8A in Appendix A page 131). The mean, between a score of 2 (sometimes) and 3 (often) indicates that consumers perceived they talked about their treatment plan regularly with their case managers.

- Change over time. Paired *t*-tests were conducted by agency to determine any changes over time in consumers' responses on how often they talked with their case managers about their treatment plan (see Table 8A in Appendix page 131). There were no statistically significant changes over time for any of the agencies which mean the changes in mean scores were small.

- **Recent Changes in Treatment Planning.** One-way ANOVAs were conducted to determine if there were differences in consumers' responses of how much has changed in the last three to four months about how consumers and case managers complete treatment plans at baseline. There were no statistically significant differences between the agencies at baseline (Total sample: $M = 1.70$, $SD = .77$; see Table 8A in Appendix A page 131). The mean, between a score of 1 (none) and 2 (some) indicates that consumers perceive that the treatment planning process has not changed recently (at baseline).
  - Change over time. Paired *t*-tests were conducted by agency to determine any changes over time in consumers' perception of how much treatment planning has changed within the last few months (see Table 8A in Appendix page 131). There were no statistically significant differences over time for any of the agencies, which means the changes in mean scores were small.

Consumers – Satisfaction with Treatment Planning Scale. Satisfaction with treatment planning was assessed by asking consumers about their relationship with their case manager (Positive Case Manager Relationship subscale), whether they perceived case managers viewed them as an individual rather than focusing on their mental health condition (Normalization subscale), how often or frequently they talk about their treatment plan with their case manager (Frequency of Treatment Planning subscale), and perception of their control over what is on their treatment plan (Control subscale). Consumers used a 5-point rating scale ranging from 1 (strongly disagree) to 5 (strongly agree). See the Measures section for scale information; see Appendix B page 151 for a list of items within scales.

- At baseline, consumers across all agencies rated Positive Case Manager Relationship ($M = 4.19$), and Normalization ($M = 4.21$) higher than Frequency Treatment Planning ($M = 3.47$) and Control over treatment planning ($M = 3.52$). These high scores, above 4 (agree), indicate that consumers feel in general that they have positive relationships with their case managers and that their case managers see them, not just their illness.

- **Gender.** *T*-tests were conducted on the subscales to determine if there was a significant effect by gender; results did not show a statistically significant difference for Positive Case Manager Relationships, Frequency of Treatment Planning, or Control over Treatment Planning which means that males and females were similar. There was a statistically significant difference for the Normalization subscale; females had a higher mean score than males (see *t*-test results in Table 8B in Appendix A page 132).[‡‡]

[‡‡] GLM with Repeated Measures Analyses were conducted using both baseline and Time 2 data, with gender as a between subjects factor, dosage as a covariate, and intervention group (initial intervention group: Agencies A and B combined, and wait-list control group: Agencies C and D combined) showed no significant differences by gender. This would mean that while females may perceive that case managers view them as normal more than males, after including change over time, agency group, and accounting for the program (dose), males and females are not different.

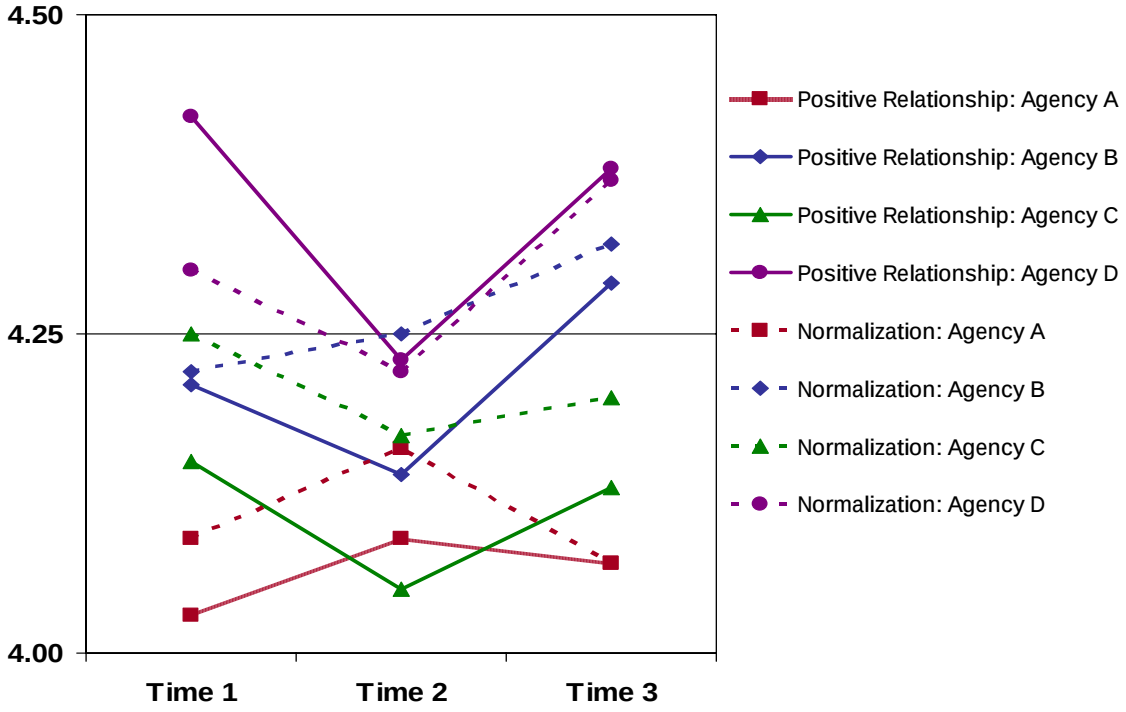
- **Differences by agency at baseline.** One-way ANOVAs were conducted to determine if there were differences in consumers' Satisfaction with Treatment Planning at baseline. Results showed only one significant difference between the agencies ($F = 3.00$, $p = .031$; see Table 8D in Appendix A page 133); consumers at Agency A had a higher mean for Positive Case Manager Relationship than consumers at Agency D (Agency A consumers' responses were not statistically different than Agency B or Agency C consumers' responses). There were no other significant differences at baseline between agencies for Positive Case Manager Relationship, Normalization, Frequency of Treatment Planning, or Control over Treatment Planning which means the differences were small.

- **Dosage.** Correlations were conducted to determine if there was an effect of dosage on subscales of the Satisfaction with Treatment Planning scale. Dosage was correlated with Satisfaction with Treatment Planning change scores (e.g., Time 2 Normalization score minus baseline Normalization score and Time 3 Normalization score minus Time 2 Normalization score). We hypothesized that consumers who received more of the intervention (i.e., a higher dose) would have greater Satisfaction with Treatment Planning change scores than consumers who had a lower dose.
  - Correlations were computed at Time 2 for Agency A and Agency B because the consumer and case manager training courses occurred between baseline and Time 2. There were no statistically significant correlations for either Agency A or Agency B on any of the Satisfaction with Treatment Planning subscales (see Table 8C in Appendix A page 132). This means that the intervention dosage did not influence consumers' Satisfaction with Treatment Planning, or that the changes were very small.
  - Correlations were computed at Time 3 for Agency C and Agency D because the consumer and case manager training courses occurred between Time 2 and Time 3. There were no statistically significant correlations for either Agency C or Agency D on consumers' perceptions of the Positive Therapeutic Relationship or Normalization subscales (see Table 8C in Appendix A page 132); for Frequency and Control subscales, correlations were unable to be computed because either the change score or dosage value did not vary. These results indicate that the intervention dosage did not influence consumers' Satisfaction with Treatment Planning, or that the changes were very small.

- **Change over time.** Paired *t*-tests were conducted to determine changes over time in consumers' perceptions of Satisfaction with Treatment Planning. We hypothesized that consumers in the initial intervention group would have significant differences (increases in Satisfaction with Treatment Planning mean scores over time) at Time 2 and that the wait-list control group would have significant differences at Time 3 (see Figures 37 and 38; the graphs are spread so that small changes are observable).

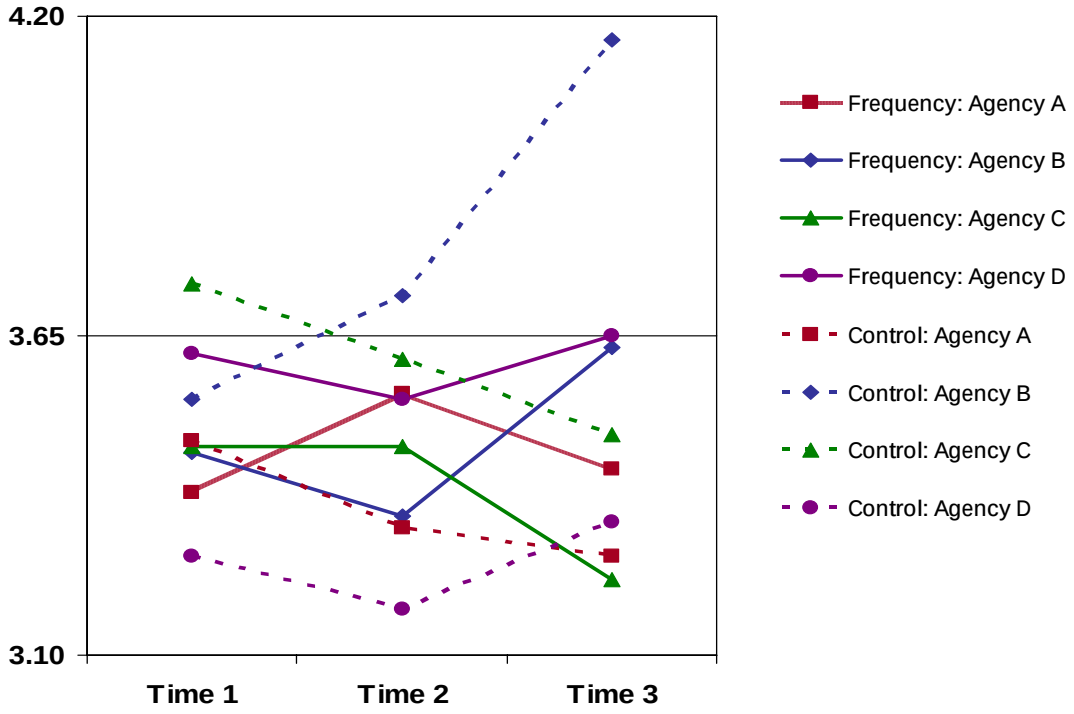
- Positive Therapeutic Relationship. Figure 37 shows the mean score for Agency A decreased at Time 2 and then increased at Time 3. For Agency B, Agency C, and Agency D, mean scores decreased at Time 2 and then increased at Time 3. However, none of the changes in mean scores were statistically significant over time for any of the agencies, which means the differences in mean scores were very small (see Table 8D in Appendix A page 133).
- Normalization. Figure 37 shows the mean score for Agency A increased at Time 2 and decreased at Time 3, the mean score for Agency B increase slightly at Time 2 and Time 3, and Agency C and Agency D mean scores decreased at Time 2 and increased at Time 3. However, none of the mean score changes were significantly different over time for any of the agencies meaning the differences were very small (see Table 8D in Appendix A page 133).

Figure 37. Changes in Consumers' Satisfaction with Treatment Planning (Positive Case Manager Relationship and Normalization Subscales) by Time and by Agency.



- Frequency of Treatment Planning. Figure 38 shows that the mean score for Agency A increased at Time 2 and decreased at Time 3, Agency B and Agency D mean scores decreased at Time 2 and increased at Time 3, and the mean score for Agency C remained relatively similar at Time 2 and decreased at Time 3. The only significant difference over time was the decrease in mean score from Time 2 to Time 3 for Agency C (see Table 8D in Appendix A page 133); all other comparisons by time and agency were non-significant, which means the changes were very small.
- Control over Treatment Planning. Figure 38 shows that Agency A and Agency C mean scores decreased at Time 2 and Time 3, the mean score for Agency B increased at Time 2 and Time 3, and the mean score for Agency D decreased at Time 2 and increased at Time 3. Only the increase in mean score for Agency B from Time 2 to Time 3 was significant (see Table 8D in Appendix A page 133); all other comparisons by time and agency were non-significant, which means the changes were very small.

Figure 38. Changes in Consumers' Satisfaction with Treatment Planning (Frequency and Control Subscales) by Time and by Agency



Consumers – Correlations between Satisfaction with Treatment Planning and Service Empowerment. The Satisfaction with Treatment Planning items were developed directly from consumer feedback provided during a focus group study, from the responses asking consumers what was most important to them in treatment planning (see lists of items within subscales in Appendix B pages 143 and 151). The items included similar ideas to the established Service Empowerment Scale (Service Decisions and Service Relationships subscales) items from the Longitudinal Consumer Outcomes Study (Crane-Ross, Lutz, & Roth, 2006). Correlations were computed between the baseline scale scores to determine how closely related these ideas were:

- Positive Case Manager Relationship was positively correlated with both Service Decisions ($r = .58$, $p = .000$) and Service Relationships ($r = .85$, $p = .000$).
- Normalization was positively correlated with both Service Decisions ($r = .49$, $p = .000$) and Service Relationships ($r = .60$, $p = .000$).
- Frequency of Treatment Planning was positively correlated with both Service Decisions ($r = .43$, $p = .000$) and Service Relationships ($r = .56$, $p = .000$).
- Control over the Treatment Plan was positively correlated with both Service Decisions ($r = .22$, $p = .000$) and Service Relationships ($r = .22$, $p = .000$).

The strongest correlation was between the Positive Case Manager Relationship subscale and the Service Relationships subscale, this strong association indicates that these items measure very similar ideas. The correlations between Positive Case Manager Relationship subscale and Service Decisions subscale, between the Normalization subscale and both Service Decisions and Service Relationships subscales, and between the Frequency of Treatment Planning subscale and both the Service Decisions and Service Relationships subscales were moderate. The moderate correlation means they capture some similar ideas, but also some different ideas. Correlations between Control over the treatment plan subscale and Service Decisions and Service Relationships subscales were significant but weak, meaning that have a few commonalities and generally measure different ideas.

Case Managers. Case managers rated their perception of consumers' Satisfaction with Treatment Planning using three subscales. Therapeutic Orientation includes items about the case managers' listening to consumers' needs and keeping confidences. Normalization includes case managers' perceptions of seeing the consumer as an individual as opposed to focusing on the mental illness. And Control items assess the case managers' perception of who (themselves or the consumer) has control over the treatment plan. Case managers rated these items on a 5-point scale ranging from 1 (strongly disagree) to 5 (strongly agree). See the Measures section for scale information; see Appendix B page 144 for a list of items within scales).

- At baseline, case managers rated their general therapeutic orientation toward consumers ($M = 4.56$) and their perception of consumers as individuals ($M = 4.41$) very positively; scores were between a 4 (agree) and 5 (strongly agree). Case managers rated their perception of consumers' control over the treatment planning process lower ($M = 3.27$), between 3 (uncertain) and 4 (agree), which may indicate they perceive the treatment planning to be more their responsibility than the consumers.

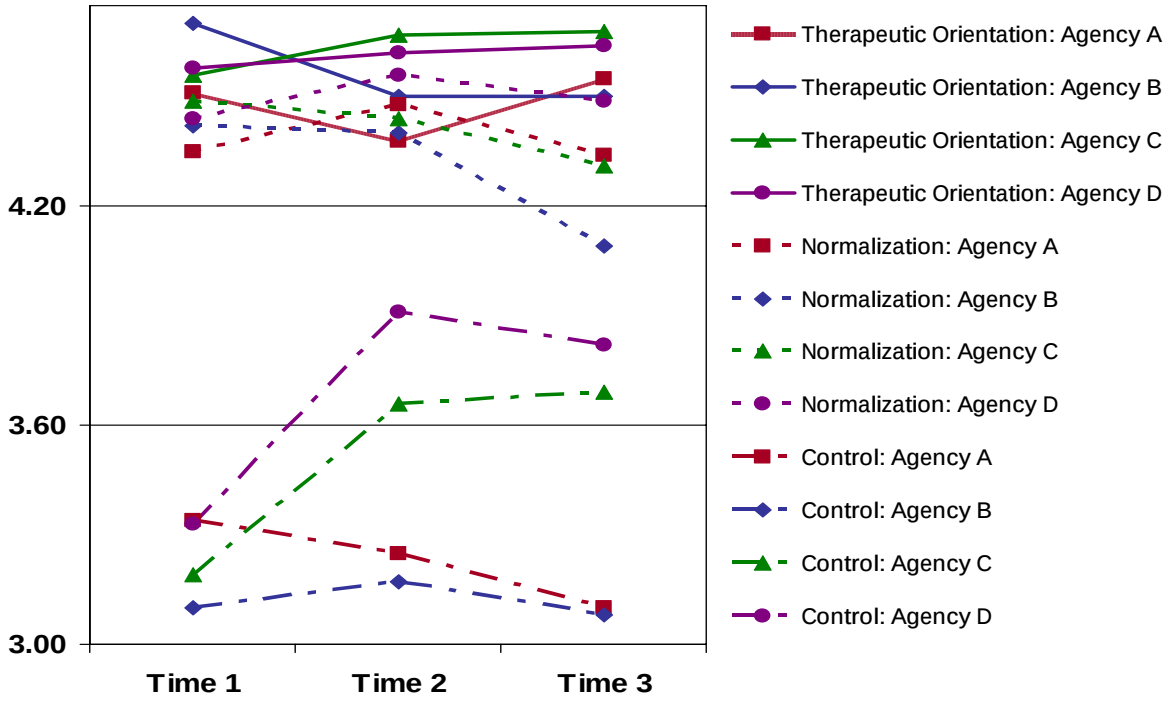
- **Gender.** *T*-tests were conducted on the subscales to determine if there was a significant effect by gender. There were no statistically significant differences by gender at baseline which means that males and females were similar (see *t*-test results in Table 8B in Appendix A page 132)

- **Differences by Intervention Group Agency at Baseline.** One-way ANOVAs were conducted to determine if there were differences in case managers' perceptions of treatment planning at baseline. Table 8E presents the means by agency (see also Figure 39; Table 8F presents the means and statistical tests by intervention group. There were no significant differences between the intervention groups at baseline for any of the treatment planning subscales, which means any differences were very small.

- **Change over time.** Paired *t*-tests were conducted to determine changes over time in case managers' perceptions of treatment planning (see Table 8E and Table 8F in Appendix A pages 134 and 135). We hypothesized that the initial intervention group Satisfaction with Treatment Planning mean scores would increase from baseline to Time 2 and the wait-list control group mean scores would increase from Time 2 to Time 3 see Figure 39; the graph is spread so that small changes are observable)
    - Therapeutic Orientation. In Figure 39, for Agency A, Agency C, and Agency D, there are small increases in mean scores at Time 2 and small decreases at Time 3. The mean score for Agency B decreased slightly over time. When aggregating by intervention group, the increase from baseline to Time 2 for the wait-list control group was statistically significant; and the decrease from Time 2 to Time 3 for the initial intervention group was statistically significant (see Table 8F in Appendix A page 135).
    - Normalization. In Figure 39, case managers' mean scores from all agencies increased slightly at Time 2 and decreased slightly at Time 3. When aggregating by intervention group, there were no significant differences for either intervention group over time which means these changes were very small (see Table 8F in Appendix A page 135).

- Control over treatment planning. In Figure 39, the mean score for Agency A decreased slightly over time, the mean score for Agency B increased at Time 2 and then decreased at Time 3, while Agency C and D mean scores increased at Time 2 and then remained somewhat similar at Time 3. When aggregating by intervention group, the only significant difference was for the increase of scores from baseline to Time 2 for the wait-list control group (see Table 8F in Appendix A page 135).

Figure 39. Changes in Case Managers' Satisfaction with Treatment Planning (Therapeutic Orientation, Normalization, and Control Subscales) by Time and by Agency



Knowledge of Consumer Outcomes

Consumers. Consumers answered questions about their knowledge of the Ohio Consumer Outcomes Survey using two subscales. One subscale included knowing things that are true, for example, that the Outcomes Survey can help identify strengths. The other subscale included knowing what was not true (false), for example, the Outcomes Survey can put you in the hospital. Consumers rated items on a 5-point scale, ranging from 1 (strongly disagree) to 5 (strongly agree). See the Measures section for scale information; see Appendix B page 153 for a list of items within scales. Only 25% of the sample responded to this question at baseline, and less than 10 consumers from each Agency completed both baseline and Time 2 questions. This limits the statistical analyses (some types of analyses are not valid with very small samples because variability is too limited) and limits the generalizability of analyses to the project sample and to the larger population.

- At baseline, for the few consumers who responded, across all agencies consumers rated their knowledge of both true ($M = 3.96$) and false ($M = 3.73$) statements about the Consumer Outcomes System. These means, close to 4 (agree) indicate that some consumers know about the Outcomes system.

- **Gender.** *T*-tests were conducted on the subscales to determine if there was a significant effect by gender at baseline. There were no statistically significant differences by gender at baseline which means that males and females were similar (see *t*-test results in Table 9A in Appendix A page 136).

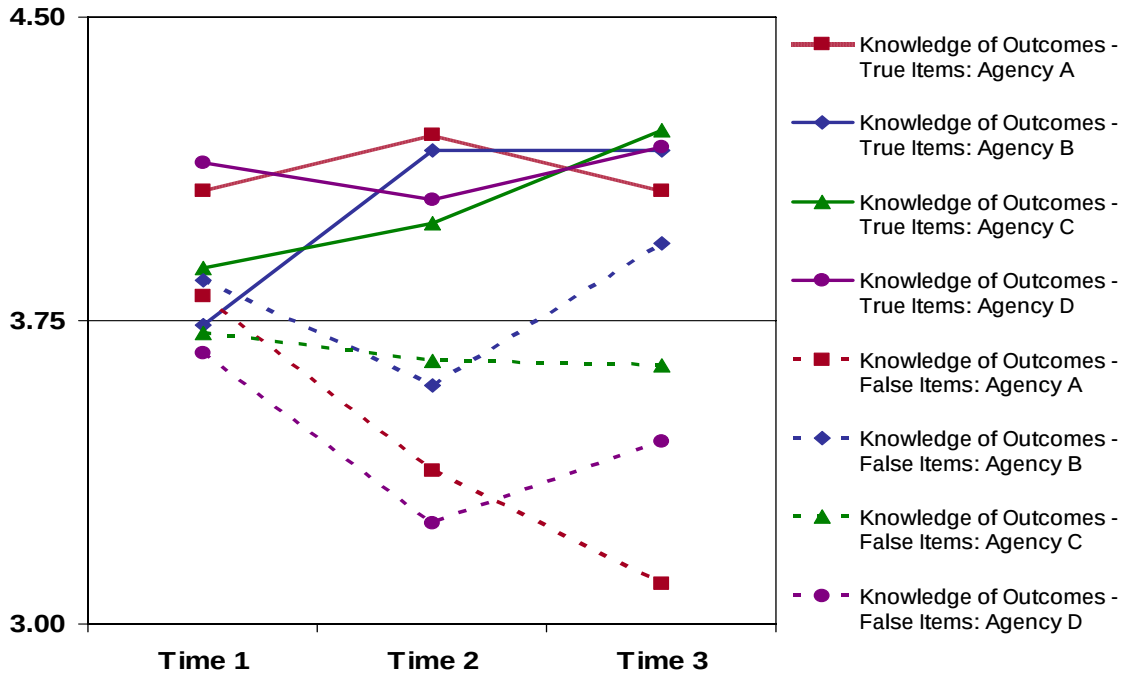
- **Differences by intervention group at baseline.** *T*-tests were conducted to determine differences in consumers' responses of Knowledge of Consumer Outcomes at baseline (*t*-tests were conducted between intervention groups because there were an insufficient number of consumers to compute One-way ANOVAs between agencies). Table 9B presents the means by agency; Table 9C presents the means and statistical tests by intervention group. There were no significant differences between the initial intervention group and the wait-list control group on Knowledge of Consumer Outcomes (True item subscale, or False item subscale).

- **Dosage.** Correlations between dosage and Knowledge of Consumer Outcomes change scores were not conducted because of the small number of consumers who responded at multiple time points.

- **Change over time.** Figure 40 presents the mean scores on Knowledge of Consumer Outcomes for each agency (the graph is spread so that small changes are observable; see also Table 9B and Table 9C in Appendix A pages 136 and 137). Because of the sample size within each agency, paired *t*-tests were conducted within intervention group to determine changes over time. We hypothesized that consumers in the initial intervention group would have significant differences (increases in Knowledge of Consumer Outcomes mean scores over time) between baseline and Time 2, and that the wait-list control group would have significant differences between Time 2 and Time 3 (see Table 9B in Appendix A page 136 for means over time by agency, and see Table 9C in Appendix A page 137 for means over time by intervention group and for *t*-test scores).

- Knowledge of Consumer Outcomes – True items. There was an insufficient number of consumers (<10) who responded to questions about consumer Outcomes at both Time 1 and Time 2, and Time 2 and Time 3, in the initial intervention group to conduct statistical tests. For the wait-list control group, there were no significant differences for understanding true items on the consumer Outcomes scales over time which means the differences were small.
- Knowledge of Consumer Outcomes – False items. There was an insufficient number of consumers (<10) who responded to questions about consumer Outcomes at both baseline and Time 2, and Time 2 and Time 3, in the initial intervention group to conduct statistical tests. The small change in mean score for the wait-list control group was not significant from baseline to Time 2, but was statistically significant for the increase between Time 2 and Time 3 (t = -2.06; see Table 9C in Appendix A page 137); this increase for the wait-list control group was consistent with our hypotheses.

Figure 40. Changes in Consumers' Knowledge of Consumer Outcomes Scores by Time and by Agency



Case Managers. Case managers rated their Knowledge of Consumer Outcomes (e.g., the Outcomes Survey can help consumers identify areas of their life where they are unhappy or dissatisfied). Case managers rated these items on a 5-point scale ranging from 1 (strongly disagree) to 5 (strongly agree). See the Measures section for scale information; see Appendix B page 153 for a list of items within scales. The baseline mean score for case managers' Knowledge of Consumer Outcomes baseline (Total sample: M = 3.49), was between a score of 3 (uncertain) and 4 (agree), which means case managers' have some knowledge but may not be aware of some of the functions or uses of the Outcomes system.

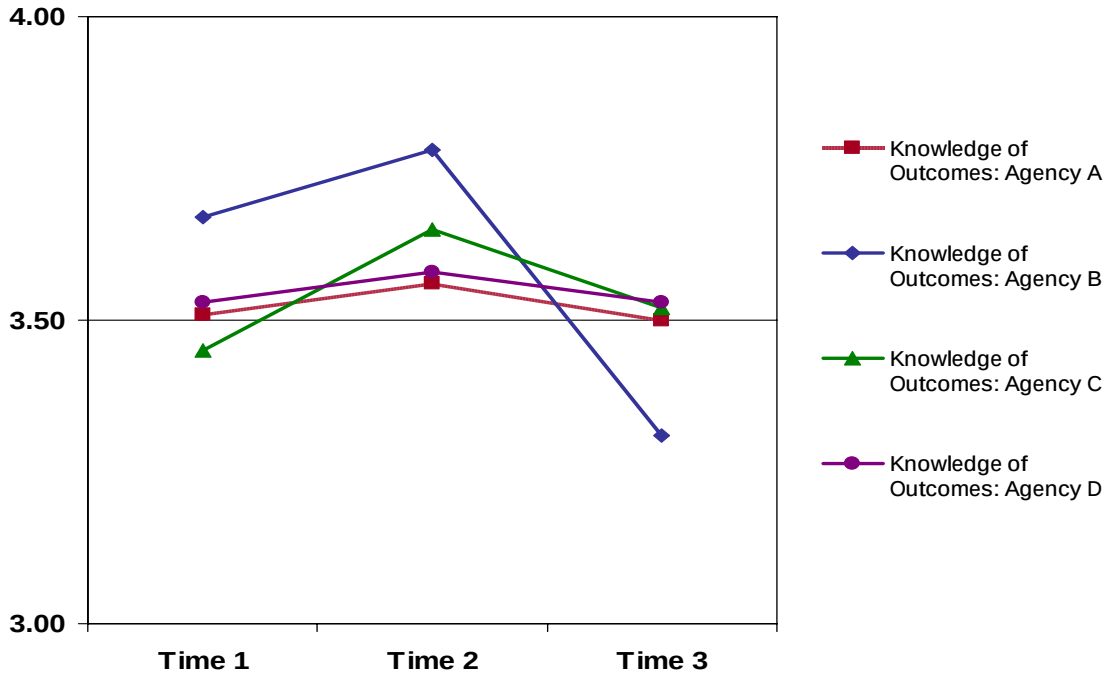
- **Gender.** *T*-tests were conducted on the subscales to determine if there was a significant effect by gender. There was not a statistically significant difference by gender at baseline which means that males and females were similar (see Table 9A in Appendix A page 136).

- **Differences by intervention group at baseline.** *T*-tests were conducted to determine if there were differences in case managers' responses on their Knowledge of Consumer Outcomes at baseline. Table 9B presents the means by agency (see also Figure 41; the graph is spread so that small changes are observable). Table 9C presents the means and statistical tests by intervention group. The difference in mean scores between the intervention groups was not significant at baseline, meaning the initial intervention group and wait-list control group mean scores were similar.

- **Change over time.** Paired *t*-tests were conducted to determine changes over time in case managers' ratings of their Knowledge of Consumer Outcomes (see Table 9C in Appendix A page 137). We hypothesized that the initial intervention group Knowledge of Consumer Outcomes scores would increase from baseline to Time 2 and the wait-list control group scores would increase from Time 2 to Time 3.

    - In Figure 41, for all agencies scores increased between baseline and Time 2, and then decreased at Time 3. When aggregating by intervention group, none of the changes in mean scores were significant for group across time which means these changes were small (see Table 9C in Appendix A page 137).

Figure 41. Changes in Case Managers' Knowledge of Consumer Outcomes Scores by Time and by Agency



Using Data in Treatment Planning

Consumers. Consumers answered questions about whether they use their answers on the Ohio Outcomes Survey to inform their goals during treatment planning with their case manager. Consumers responded using a 5-point scale ranging form 1 (strongly disagree) to 5 (strongly agree). See the Measures section for scale information; see Appendix B page 154 for a list of items within scales. Only 23% of the sample responded to this question at baseline, and less than 10 consumers from each Agency completed both baseline and Time 2 questions, and both Time 2 and Time 3 questions. This limits the statistical analyses available and limits the generalizability of analyses to the project sample and to the larger population.

- The baseline mean for consumers' ratings of Using Data in Treatment Planning (Total sample: $M = 3.38$) was between a score of 3 (undecided) and 4 (agree) which means that some consumers do use Outcomes, and some may need additional support or information to use Outcomes during the treatment planning process.

- **Gender.** *T*-tests were conducted on the Using Data in Treatment Planning scale to determine if there was a significant effect by gender. There was a statistically significant difference by gender for Using Data in Treatment Planning; females had a higher mean score than males at baseline (see *t*-test results in Table 10A in Appendix A page 138).[§§]

- **Differences by intervention group at baseline.** Because there were an insufficient number of consumers who responded to this question, a *t*-test between intervention groups was conducted to determine if there were differences in consumers' responses of Using Data in Treatment Planning at baseline. Table 10B (in Appendix A page 138) presents the means by agency (see also Figure 42; the graph is spread so that small changes are observable). Table 10C (in Appendix A page 139) presents the means and statistical tests by intervention group. The difference in mean scores between the intervention groups was not significant at baseline, meaning the difference was small.

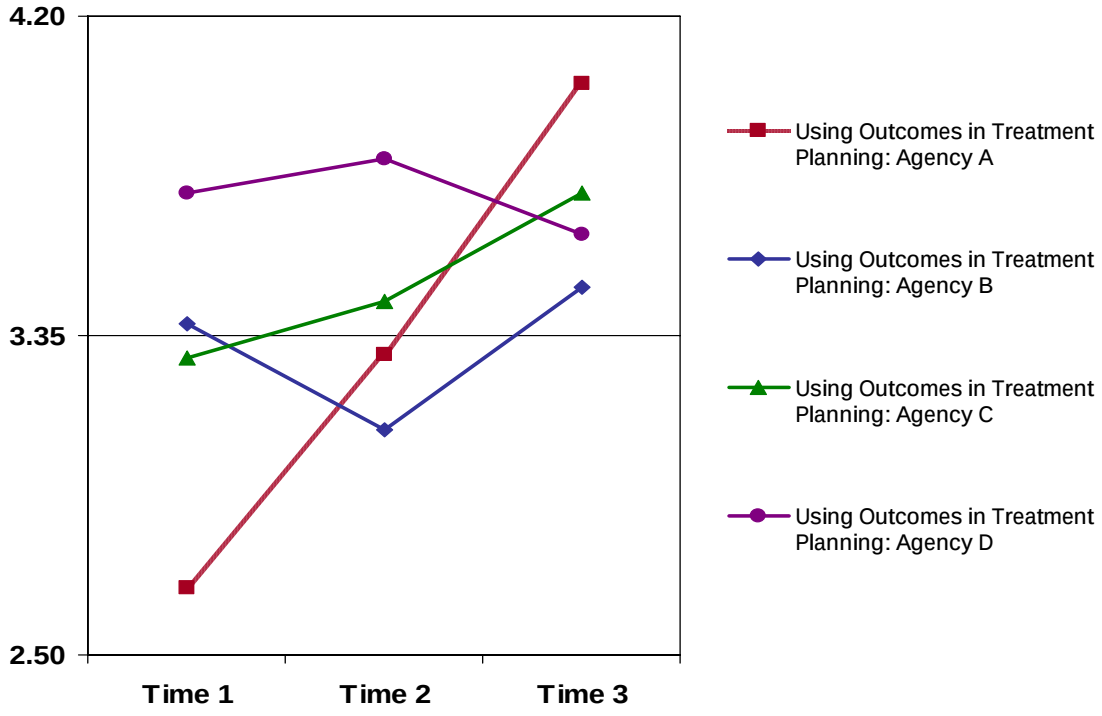
- **Dosage.** Correlations between dosage and Using Data in Treatment Planning change scores were not conducted because of the small number of consumers who responded.

- **Change over time.** Paired *t*-tests were conducted to determine changes over time in consumers' ratings of Using Consumer Outcomes. We hypothesized that consumers in the initial intervention group would have significant differences (increases in Using Data in Treatment Planning mean scores over time) between baseline and Time 2, and that the wait-list control group would have significant differences between Time 2 and Time 3 (see Table 10C in Appendix A page 139).

[§§] GLM with Repeated Measures Analyses were conducted using both baseline and Time 2 data by intervention group (initial intervention group: Agencies A and B combined, and wait-list control group: Agencies C and D combined), with gender as a between subjects factor. GLM results showed no significant differences by gender. This would mean that while females may use Outcomes in Treatment Planning more frequently than males overall, after including change over time and agency group males and females are not different.

- In Figure 42, the mean scores for Agency A and Agency C increased from baseline to Time 2 and then again at Time 3, the mean score for Agency B decreased at Time 2 and increased at Time 3, and the mean score for Agency D increased slightly at Time 2 and decreased at Time 3. When aggregating by intervention group, there was an insufficient number of consumers (<10) who responded to questions over multiple time-points in the initial intervention group to conduct a statistical test; however there were a sufficient number for the wait-list control group which showed a small but significant increase in the mean score from Time 2 to Time 3 (t = -1.78; see Table 10C in Appendix A page 139).

Figure 42. Changes in Consumers' Using Data in Treatment Planning Scores by Time and by Agency



Case Managers. Case managers rated their use of Consumer Outcomes in treatment planning with three subscales. Outcomes Communication items reflect how case managers explain the Outcomes Survey to consumers and how often case managers talk with consumers about their answers on the survey. Using Data in Treatment Planning items ask case managers about applying Outcomes scores to consumers' treatment plan goals. And the Strengths/Red Flags subscale items ask case managers about using the Strengths/Red Flags Reports. Case managers rated Outcomes Communication items using two 5-point scales, the first scale rated agreement and ranged from 1 (strongly disagree) to 5 (strongly agree); the second scale rated frequency and ranged from 1 (never) to 5 (always). The Using Data in Treatment Planning, and the Strengths/Red Flags subscales also used the 5-point frequency scale (see the Measures section for scale information; see Appendix B page 155 for a list of items within scales).

- Overall, at baseline, the baseline mean for case managers' perceptions of their Outcomes Communication (Total sample: $M = 2.92$) was close to a 3 (uncertain/sometimes). And the baseline mean for case managers' ratings of using data during treatment planning (Total sample: $M = 3.37$) was a little higher, between a mean of 3 (uncertain/sometimes) and 4 (agree/a lot), which may mean that case managers use the information on treatment planning, but may not talk about Outcomes with consumers as frequently. Only about one-third of case managers reported using the Strengths/Red Flags Reports at baseline.

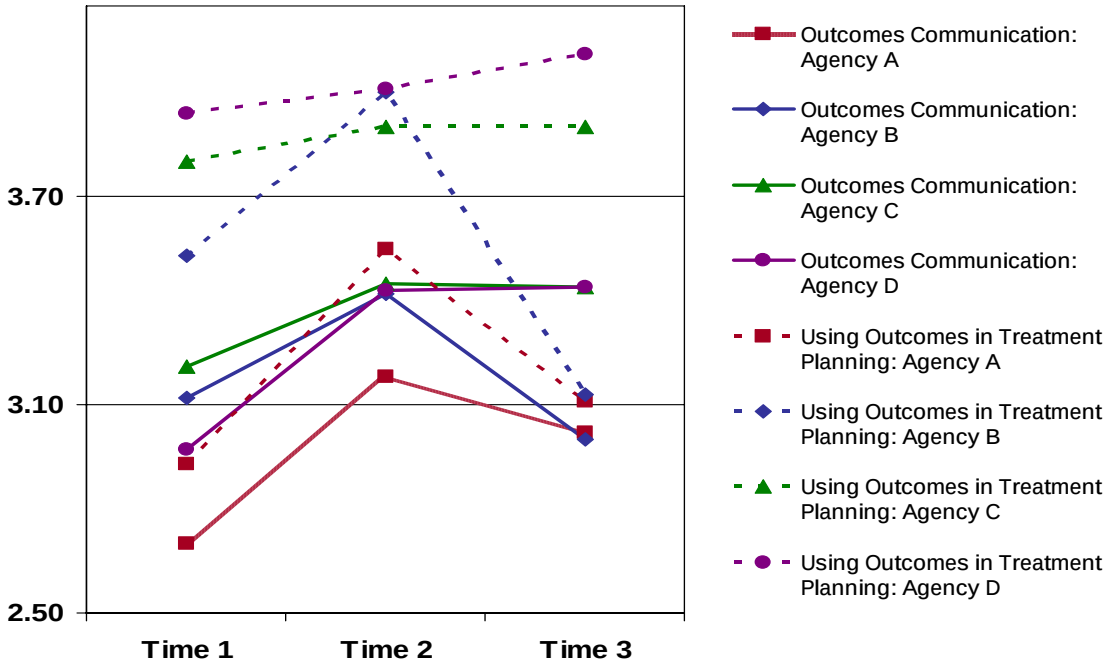
- **Gender.** *T*-tests were conducted on the subscales to determine if there was a significant effect by gender. There were no statistically significant differences by gender at baseline which means that males and females were similar (see Table 10A in Appendix A page 138).

- **Differences by intervention group at baseline.** *T*-tests were conducted to determine if there were significant differences in case managers' responses of Using Consumer Outcomes at baseline. Table 10B presents the means by agency (in Appendix A page 138; see also Figure 43; the graph is spread so that small changes are observable). Table 10C presents the means and statistical tests by intervention group (in Appendix A page 139).
    - There were significant differences in baseline means for Outcomes Communication and Using Data in Treatment Planning by intervention group, but not for Strengths/Red Flags Reports. The wait-list control group had significantly higher means at baseline than the intervention group, on both subscales (see Table 10B in Appendix A page 138); higher means at baseline may mean less room for change over time.

- **Change over time.** Paired *t*-tests were conducted to determine changes over time in case managers' ratings of Using of Consumer Outcomes (see Table 10C in Appendix A page 139). We hypothesized that case managers in the initial intervention group would have significant differences (increases in Using Data in Treatment Planning mean scores over time) between baseline and Time 2, and that the wait-list control group would have significant differences between Time 2 and Time 3.

- In Figure 43, Agency A and Agency B mean scores increased at Time 2 and decreased at Time 3 for both Outcomes Communication and Using Consumer Outcomes subscales. And for both subscales, mean scores for Agency C and Agency D increase at Time 2 and then remain stable or have slight increases at Time 3. When aggregating by intervention group, only the increase in scores on Outcomes Communication and Using Data subscales at both Time 2 and Time 3, for the initial intervention group, were statistically significant (see Table 10B in Appendix A page 138).

Figure 43. Changes in Case Managers' Using Data in Treatment Planning Scores (Outcomes Communication and Using Data in Treatment Planning Subscales) by Time and by Agency

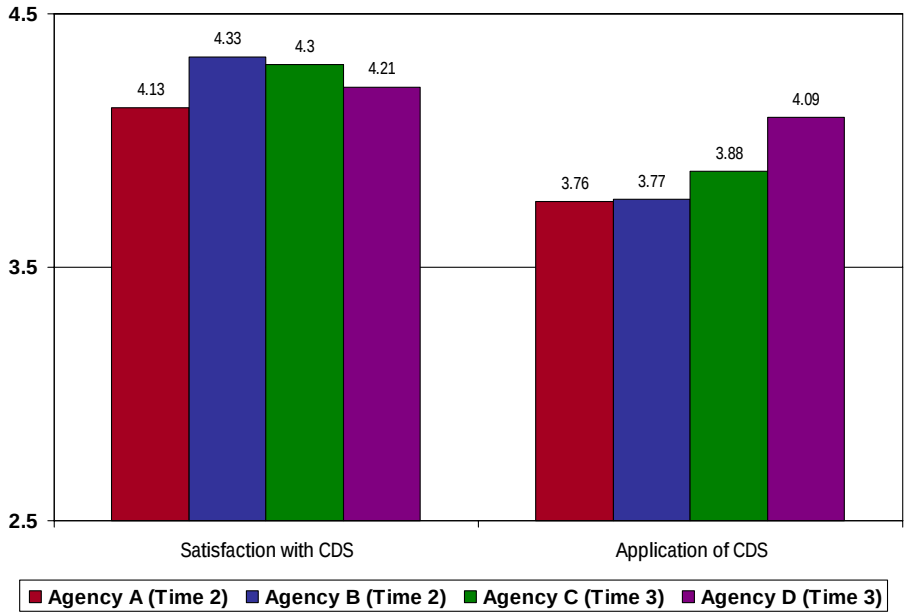


Workshop Evaluations

Climbing Into the Drivers Seat (Consumers). Consumers who participated in the Climbing Into the Drivers Seat workshop answered questions about their satisfaction with the two-day workshop and barriers to using the information with their case manager; consumers rated items on a 5-point scale ranging from 1 (strongly disagree) to 5 (strongly agree). See the Measures section for scale information; see Appendix B page 156 for a list of items within scales. These items were only included in the interview after consumers participated in the course (Time 2 for the initial intervention group and Time 3 for the wait-list control group).

- Figure 44 displays the means scores for consumers' satisfaction and application of CDS (the graph is spread so that small changes are observable; see Table 11 in Appendix A page 140).
  - Satisfaction with Climbing Into the Drivers' Seat. Consumers from all agencies reported mean scores above 4 (agree), indicating that, in general, consumers were satisfied with participating in CDS.
  - Application of Climbing Into the Drivers' Seat. Consumers' responses from Agency A, Agency B, and Agency C were between 3 (undecided), and 4 (agree), meaning that consumers in these agencies may have had some challenges with using the materials or ideas from the course. Consumers in Agency D had a higher mean score, indicating they perceived a little more success at using the CDS materials.

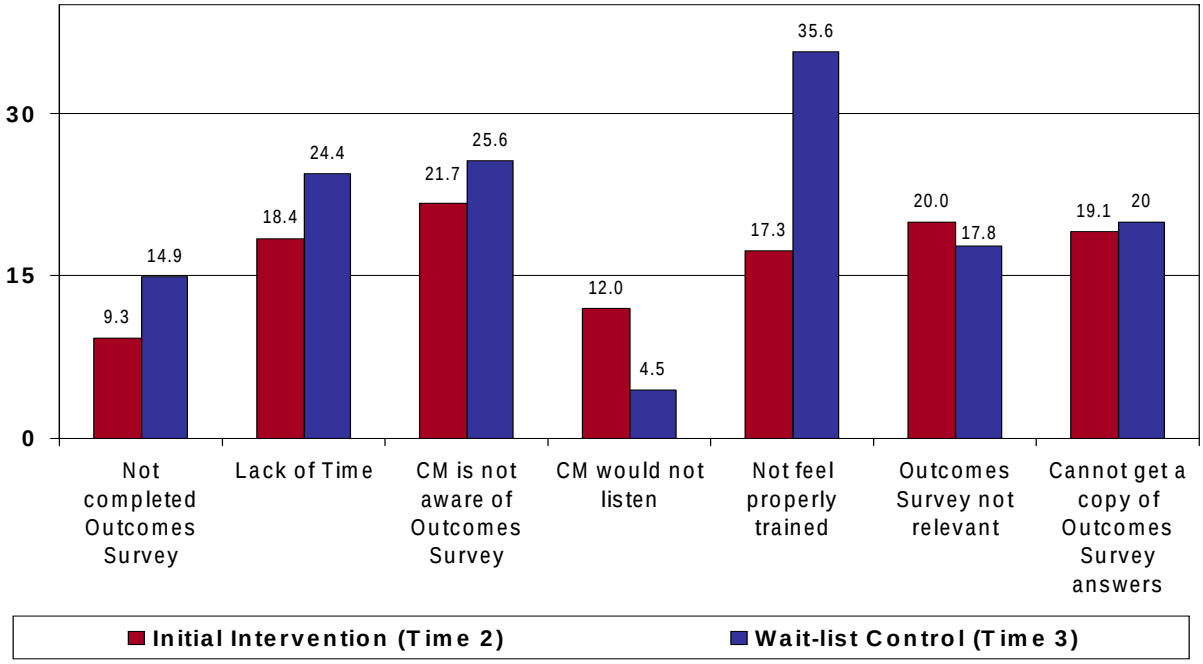
Figure 44. Satisfaction with CDS and Application of CDS by Agency (Mean scores)



Barriers to using Climbing Into the Drivers' Seat. Consumers also were asked to indicate whether any of seven barriers had kept them from talking with their case manager about the CDS course (see Figure 45; the graph is spread so that small changes are observable). Not all consumers completed this section of the survey, in the initial intervention group, 75 of 81 (93%) consumers who took the CDS course completed these questions at Time 2, and in the wait-list control group, 45 of 52 (87%) consumers who took the CDS course completed these questions at Time 3. Figure 45 presents the percentages of barriers consumers responded "Yes," that these things kept them from talking to their case managers about CDS or Outcomes scores.

- More than 15% of consumers from both the initial intervention group and the wait-list control group responded that: 1) Lack of Time, 2) Case Manager lack of awareness of the Outcomes Survey (as perceived by the consumer), 3) Not feeling properly trained, 4) Lack of relevancy of the Outcomes Survey, and 5) Lack of access (having a copy) of the Outcomes Survey were barriers to discussing Outcomes with their case manager.
- A few consumers reported they had not completed the Outcomes Survey, or that they perceived their case manager would not listen.

Figure 45. Barriers to using CDS information by intervention group (Percents)



- **Consumer Comments – Most Useful Ideas.** Consumers were asked which ideas were most useful to them when talking with their case mangers. Consumers in the initial intervention group responded to this question at Time 2, and consumers in the wait-list control group responded at Time 3 (116 consumers across both time periods responded to this question).

- Many respondents (55) indicated they had ***positive experiences*** associated with talking to their case managers about the Outcomes Survey.
  - Within this group of comments, participants most frequently mentioned discussing actionable supports and goals with their case managers. Such supports included employment, community involvement, financial management, medication, and treatment options. Some ideas respondents found useful during the conversation with their case manager were "utilizing skills, services at [agency], going to groups and utilizing resources in the community," and "finding out what kinds of meds I am taking. Finding out what I can do when I have a problem."
  - Respondents also commented that discussions with their case manager about the Outcomes Survey instilled feelings of empowerment and recovery. "I got a say in order to plan my own plan with my case worker and the doctor. I learned how to advocate for myself." Other comments included, "I learned I'm not alone - I could talk about my feelings. It's okay to be independent, confident and know where I stand in the community," and "It does put the patient in the driver's seat because it describes outcomes, not just directions – it's eye-opening."
- Additionally, many respondents (29) stated that they ***did not discuss the Outcomes Survey with their case manager***. One consumer elaborated by saying, "I have not been able to talk with my case manager. I just feel she doesn't care a lot about what I have to say about the CDS." Another participant commented, "I don't remember talking to her about it. We just filled it out and then she took me back home." These comments exemplify some of the barriers that participants have experienced when attempting to utilize the Outcomes Survey with their case managers.
- Several consumers (20) said that they ***did not remember*** discussing the Outcomes Survey with their case manager.

- **Consumer Comments – Lessons Learned, And Using Materials.** Consumers were asked if there was anything else they would like to share about the course, any lessons learned, how they would use the ideas with their case manager, or why they have not used the course ideas with their case manager. Consumers in the initial intervention group responded to this question at Time 2, and consumers in the wait-list control group responded at Time 3 (121 consumers across both time periods responded to this question).
  - Many respondents (67) reported a ***positive experience with Climbing Into the Driver's Seat***. Participants indicated that taking the course instilled feelings of empowerment and recovery. One consumer wrote, "I have actually used the ideas. What I liked about the course is that you actually set your own goals, you set the bar. The course was self-empowering, meaning it's about you and not where the case manager, therapist, etc wants you to be." Other examples of such comments include, "It's very effective and gives you a better way of working with the case manager. It also gives you a better idea about yourself and that helps because you can discuss it with your case worker," and "Good tools to be able to keep. I have more control in treatment planning, also, I realize I'm not alone - others have similar interests and issues." Another respondent stated, "I liked finding out more about my illness and how to work toward recovery and be more involved."

- Others discussed how they would use the ideas learned in the CDS course: "A good idea I put into practice was about making use of people in my life. I have reconnected with people in my life instead of isolating," and "It helped to put me in the right direction, clarified where I want to go." Another participant commented, "I need to further my education and get a diploma. It taught me how to keep busy. They taught me to do things I like to do."
- Several general positive comments were mentioned by consumers: "I really liked the class. We had a lot of fun there. I still have my T-shirt," "It's great to use as a reference point," "I feel CDS was beneficial," "It made me feel good about myself," "What I really liked about the course was how it branched off to more than just mental health, but about other aspects of life," and "It was very educational and interesting. There were things in the course that I didn't know about. I keep the booklet for reference."

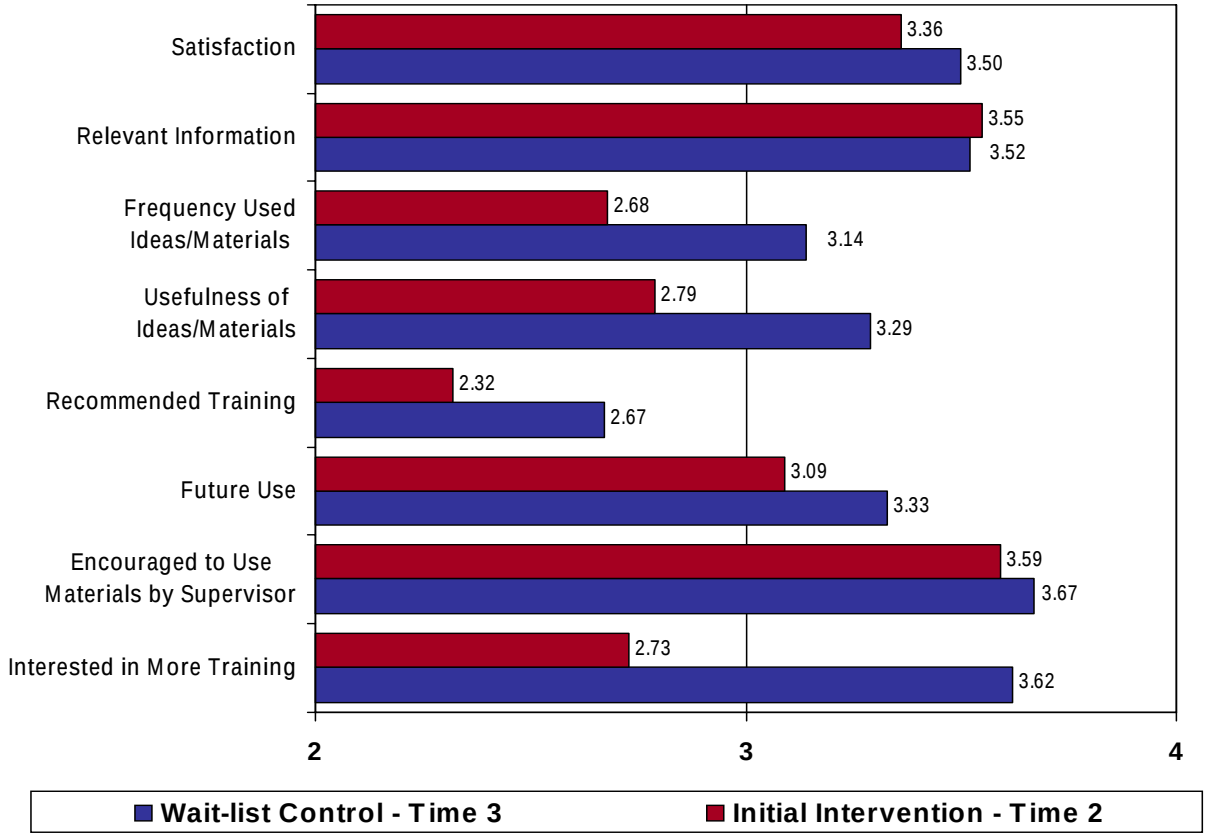
- Similar to the ***barriers*** included in Figure 45, some consumers indicated lack of Time, lack of case manager lack of awareness of the Outcomes Survey (as perceived by the consumer), lack of communication with case manager, and lack of access (having a copy) of the Outcomes Survey.
- ***Possible ideas to include in future CDS courses*** were also discussed by respondents. Several consumers mentioned that the course needs to be longer than two days to allow more time for training and workshops. Another participant suggested, "The instructions need to be more clear. Step by step instructions would help me."

Using Adult Consumer Outcomes to Support Service and Recovery Planning (Case Manager training). Case managers answered questions about their satisfaction with the training, and the usefulness of the training and materials; case managers in the initial intervention group answered questions at Time 2, and case managers in the wait-list control group answered questions at Time 3. Case managers rated their satisfaction on a 5-point scale ranging from 1 (not at all) to 5 (very much). See the Measures section for scale information; see Appendix B page 156 for a list of items within scales.

- Figure 46 presents the means for the individual questions by intervention group (the graph is spread so that small changes are observable).
  - Satisfaction and Relevant Information. Means scores for case managers in both the initial intervention group and the wait-list control group (between a 3 [some] and 4 [a lot]) indicated they were somewhat satisfied with the training and that the training provided relevant information.
  - Encouraged to Use Materials by Supervisor. Case managers in both the initial intervention group and the wait-list control group also reported that they were encouraged by their supervisors to apply the course information in their case management.
  - Frequency Used Ideas/Materials and Usefulness of Ideas/Materials. Case managers in the wait-list control group rated the frequency with which they used the ideas or materials and the usefulness of the ideas/materials higher than the initial intervention group (mean scores were between 2 [a little] and 3 [some]). However, case managers in both groups indicated to some extent they expected to use the ideas or materials in the future.

- Recommended Training and Interested in More Training. Case managers in the wait-list control group also had higher means than the initial intervention group for recommending the training to others, and higher means for interest in more training.

Figure 46. Case Managers' Satisfaction and Utility Ratings of the Using Adult Consumer Outcomes to Support Service and Recovery Planning Workshop by intervention group (Mean scores)



- **Case Manager Comments – Changes in Treatment Planning.** Case managers were asked to specify if they do anything differently in Treatment Planning as a result of the training. Case managers in the initial intervention group responded to this question at Time 2, and case managers in the wait-list control group responded at Time 3 (35 case managers across both time periods responded to this question).
  - The most common response (14 case managers) was that case managers ***discuss the outcomes results*** with the consumer before planning goals (e.g., prompting for additional information based on scores to use during planning), for example, one case manager commented, "I tend to ask more questions now regarding lifestyle, finances, housing in regards to recovery & ISP goals."
  - Several case managers (eight) indicated that they look at the ***strengths and weaknesses or areas of dissatisfaction*** (with or without Strengths/Red Flags Report) to find out how to incorporate them into the plan. One case manager commented "I use red flagged items to create goals."

- Additionally, several case managers (six) reported that the Outcomes scores help them to ***get to know the consumer better***, (e.g., additional family and/or childhood background); one case manager said that it helped him/her to not be scared to ask the consumer more questions.
- A few case managers (four) indicated that they ***review the Outcomes scores themselves*** more closely and a few (four) also indicated that they ***include Outcomes scores*** in the Treatment Plan Review.
- Some case managers (four) reported looking at the ***Outcomes change scores*** to show progress or lack of change.
- Additionally, some case managers (three) indicated that they had the consumers ***take the Outcomes more frequently, or do Outcomes test prior*** to developing a new treatment plan.
- A couple case managers reported especially looking at ***symptom distress scores*** to look at progress/symptom reduction, or how these symptoms were related to the consumers' diagnosis; one case manager commented, "I refer to the symptom distress score as a way to measure the client's progress on a symptom reduction/management goal."
- Additionally, one case manager reported ***discussing individual items throughout treatment***, not just during planning, one case manager said he/she utilized Outcomes more ***frequently, and one*** case manager said he/she ***spent more time with clients during Outcomes administrations.***

- **Case Manager Comments – Barriers.** Case managers were asked to describe anything that kept them from making use of the training materials. Case managers in the initial intervention group responded to this question at Time 2, and Case managers in the wait-list control group responded at Time 3 (17 case managers across both time periods responded to this question).
  - Six case managers reported ***time challenges***, particularly with ***large caseloads.***
  - A few case managers (three) reported consumers' ***cognitive issues*** (e.g., developmental disability) ***or mental health symptoms*** (e.g., paranoia or anxiety) prevented understanding/discussion of survey/results.
  - Despite attending training, two case managers reported ***lack of understanding*** of how to use materials in the Individual Service Plan.
  - Additionally, one case manager indicated lack of consumer interest as a barrier, one mentioned ***item wording*** in the Empowerment subscale was difficult for consumers, another mentioned ***consumers' resistance*** to using needs identified from Outcomes in their Treatment Plan, and another mentioned ***difficulty contacting the consumer*** to administer the Outcomes Survey.

Indicators of Consumer Recovery

The current study hypothesized that consumer recovery, as measured by the Ohio Outcomes System surveys, may increase if consumers were more empowered in their treatment planning. Consumers rated their Quality of Life and Financial Status, their Symptom Distress, and their Empowerment. Case managers rated consumers on Activities of Daily Living, Meaningful Activities, and overall Community Functioning (see the Measures section for scale information; see Appendix C page 157 for the actual Outcomes Surveys).

Ohio Outcomes Surveys were collected on a different schedule than the interviews and surveys collected of consumers and case managers as part of this project. Ohio Outcomes Surveys were collected yearly. The most recent survey completed prior to the project start date was selected as the pretest. The most recent Outcomes completed after the end of the project will be selected as the posttest. The current report presents the means on the survey subscales for the pretest data; posttest survey data will be included in a future report.

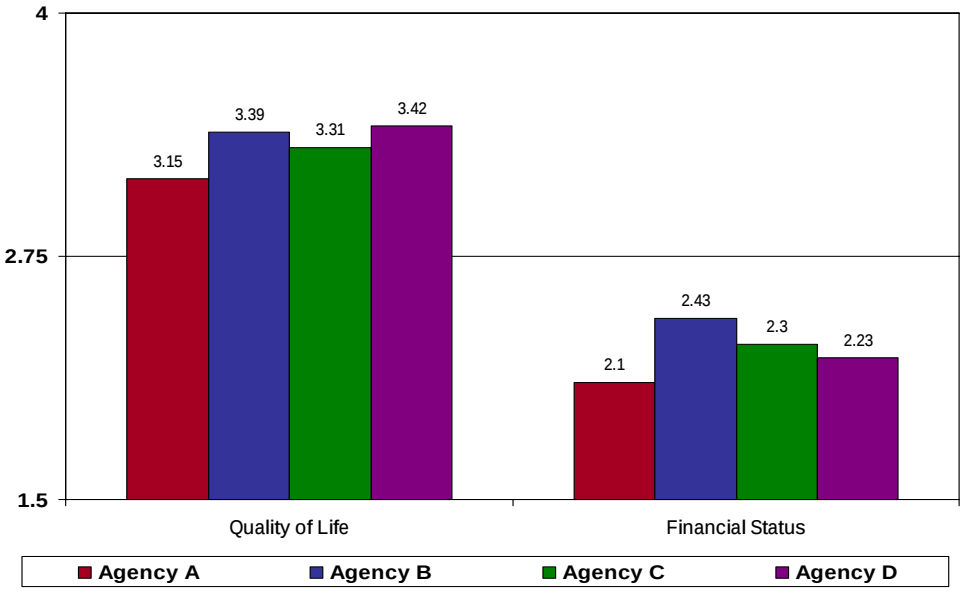
Quality of Life. Consumers rated their Quality of Life (e.g., amount of friendship, meaningful activity, amount of freedom) on two 5-point scales, a satisfaction scale, responses ranged from 1 (terrible) to 5 (very pleased), and a frequency scale, responses ranged from 1 (never) to 5 (always). Consumers also rated their Financial Status (e.g., amount of money) on the same 5-point satisfaction scale above. See the Measures section for scale information; see Appendix C page 157 for the Ohio Mental Health Consumer Outcomes System Adult Form.

- At baseline, consumers rated their Quality of Life as moderate (Total sample $M = 3.31$), between a score of 3 (equally satisfied/dissatisfied or sometimes) and 4 (mostly satisfied or often). This mean score is slightly higher (indicating a higher quality of life) than the statewide mean ($M = 2.91$, Ohio Department of Mental Health, 2005b).

- At baseline, consumers were less satisfied with their Financial Status (Total sample $M = 2.26$), closer to 2 (mostly dissatisfied). Again, the mean score on financial satisfaction, for the consumers participating in this project, was slightly higher (indicating higher satisfaction regarding financial status) than the statewide mean ($M = 2.05$, Ohio Department of Mental Health, 2005b).

- Figure 47 displays the mean scores for consumers' satisfaction on their Quality of Life, and Financial Status, by agency (the graph is spread so that small changes are observable). There were no statistically significant differences in the pretest scores between the agencies, which means the differences were small (see Table 12A in Appendix A page 141).

Figure 47. Quality of Life and Financial Status Subscales Pretest Mean Scores by Agency

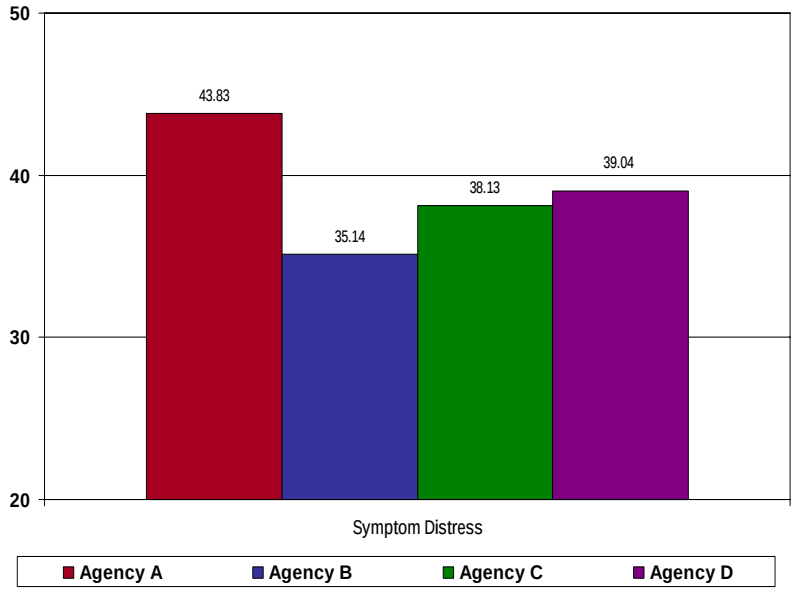


Symptom Distress. Consumers rated their perception of their Symptom Distress. The scale includes three components. Consumer rated their distress over symptoms (15 items, e.g., distressed or bothered by feeling fearful, feeling lonely, and heavy feelings in arms or legs) using a 5-point scale; responses ranged from 1 (not at all) to 5 (extremely). Consumers rated their symptom recognition (1 item, "How often can you tell when mental or emotional problems are about to occur?") and symptom prevention (1 item, "When you can tell, how often can you take care of the problems before they become worse?") with a 5-point frequency scale; responses ranged from 1 (never) to 5 (always). See the Measures section for scale information; see Appendix C page 157 for the Ohio Mental Health Consumer Outcomes System Adult Form.

- At baseline, consumers were a little bit distressed over their symptoms (Total sample *M* = 39.41). The mean score is slightly lower (indicating less symptom distress) than the statewide mean (*M* = 39.97, Ohio Department of Mental Health, 2005b).

- Figure 48 displays the mean scores for consumers' reports of Symptom Distress, by agency (the graph is spread so that small changes are observable). There was one statistically significant difference, consumers in Agency A had a higher mean on Symptom Distress (indicating less distress) as compared with consumers in Agency B (see Table 12A in Appendix A page 141). There were no other statistical differences between agencies, which means the differences were small.

Figure 48. Symptom Distress Pretest Mean Scores by Agency



Empowerment. Consumers rated their perceptions of their empowerment (e.g., overall fulfillment, purpose in life, hope for the future, and personal empowerment). The scale includes five subscales: 1) Self-Esteem/Self-Efficacy, 2) Power/Powerlessness, 3) Community Activism and Autonomy, 4) Optimism and Control Over the Future, and 5) Righteous Anger. Consumers responded to empowerment questions with a 4-point scale: 1 (strongly agree), 2 (agree), 3 (disagree), and 4 (strongly disagree). See the Measures section for scale information; see Appendix C page 157 for the Ohio Mental Health Consumer Outcomes System Adult Form.

- At baseline, consumers rated their overall empowerment (all subscales combined) as somewhat low (Total sample $M = 2.72$), between a score of 2 (agree) and 3 (disagree). This mean score is slightly higher (indicating less empowerment) than the statewide mean ($M = 2.63$, Ohio Department of Mental Health, 2005b).

- Figure 49 displays the mean scores for consumers' reports of empowerment, by subscale and by agency (the graph is spread so that small changes are observable). Table 12B in Appendix A page 142 presents the means and baseline statistical tests.

- **Self-Esteem/Self-Efficacy.** Across agencies, consumers rated their Self-Esteem/Self-Efficacy somewhat low (Total sample $M = 2.80$), close to a score of 3 (disagree). There were two statistically significant differences between agencies at baseline. Consumers in Agency A had a lower mean score (indicating more empowerment) than consumers in Agency B and Agency C.

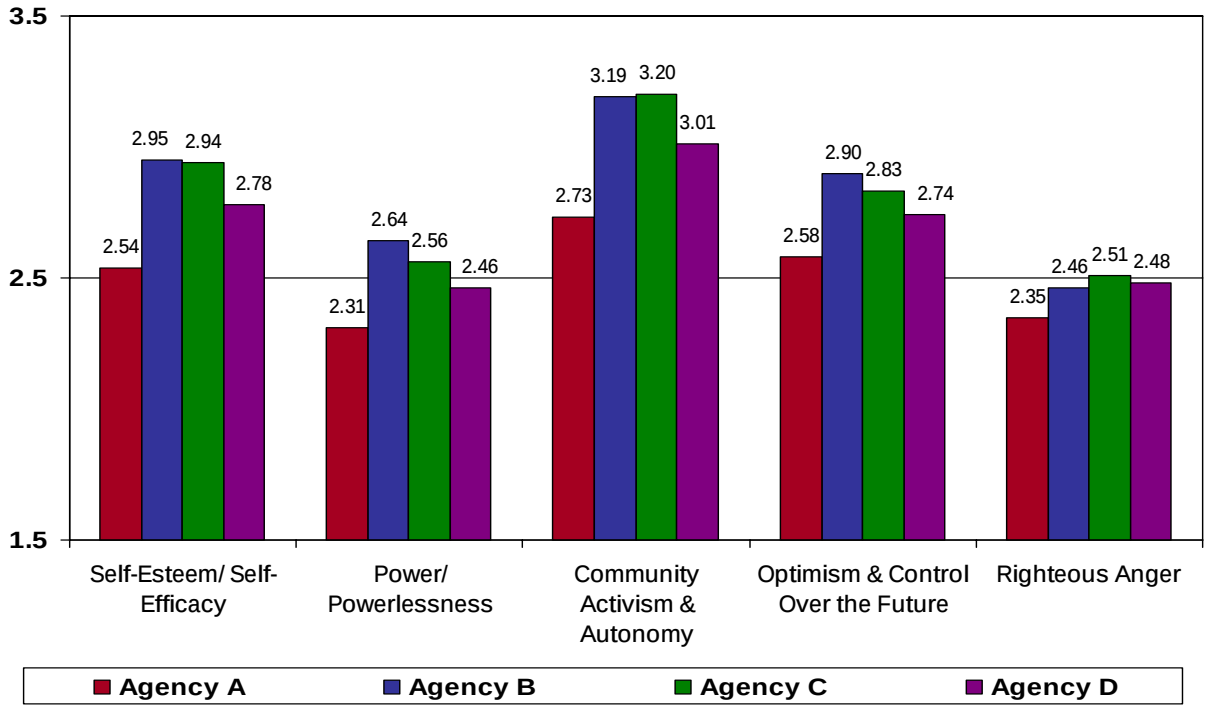
- **Power/Powerlessness.** Across agencies, consumers rated their Power/Powerlessness as fair (Total sample $M = 2.49$), midway between 2 (agree), and 3 (disagree). There were two statistically significant differences between agencies at baseline. Again, consumers in Agency A had a lower mean score (indicating more empowerment) than consumers in Agency B and Agency C.

- **Community Activism and Autonomy.** Across agencies, consumers rated their Community Activism and Autonomy as low (Total sample *M* = 3.04), above a mean of 3 (disagree). There were three statistically significant differences between agencies at baseline. Consumers in Agency A had a lower mean score (indicating more empowerment) than consumers in Agency B, Agency C, and Agency D.

- **Optimism and Control Over the Future.** Across agencies, consumers rated their Optimism and Control Over the Future as somewhat low (Total sample *M* = 2.76), close to a score of 3 (disagree). There were two statistically significant differences between agencies at baseline. Again, consumers in Agency A had a lower mean score (indicating more empowerment) than consumers in Agency B and Agency C.

- **Righteous Anger.** Across agencies, consumers rated their Righteous Anger as fair (Total sample *M* = 2.45), midway between 2 (agree), and 3 (disagree). There were no statistically significant differences between the agencies at baseline, which means the differences were small.

Figure 49. Consumer Empowerment Subscales Pretest Mean Scores by Agency

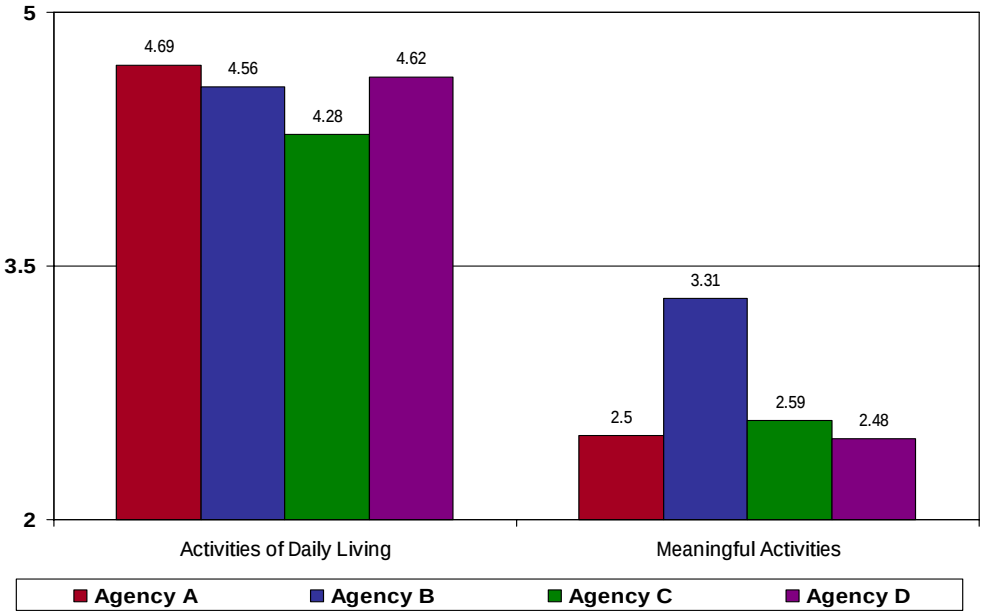


Community Functioning. As part of the Ohio Mental Health Consumer Outcomes System, the primary worker (usually the case manager) rated their perceptions of each individual consumer with whom they work. Workers rated individual's Community Functioning, including: Social Contact (1 item), Social Interaction (1 item), Social Support (1 item), Housing Stability (1 item), Forced Moves (1 item), Activities of Daily Living (8 items; e.g., hygiene, nutrition, transportation, and housekeeping), Meaningful Activities (6 items; e.g., work, school, volunteering, and leisure), Primary Role (1 item), Addictive Behaviors (1 item), Criminal Justice (1 item), and Aggressive Behavior (1 item). See Appendix C page 157 for the Ohio Mental Health Consumer Outcomes System Adult Form.

- Table 12A in Appendix A page 141 presents the means by agency and baseline statistical tests for workers' ratings of consumers' engagement in daily living activities, involvement in meaningful activities, and overall functioning in the community. See Figures 50 and 51 (the graphs are spread so that small changes are observable).

- **Activities of Daily Living.** Figure 50 displays the mean scores for workers' ratings of consumers' independence with daily living activities, by agency (the graph is spread so that small changes are observable). Across agencies, workers rated consumers as fairly independent in their daily living (Total sample $M = 4.53$); this mean score is very similar to the statewide mean ($M = 4.58$; Ohio Department of Mental Health, 2009).
  - There were three statistically significant differences between agencies at baseline. Workers' ratings of consumers in Agency C were lower (ratings indicated less independence in daily activities) than workers' ratings in Agency A, Agency B, and Agency D.

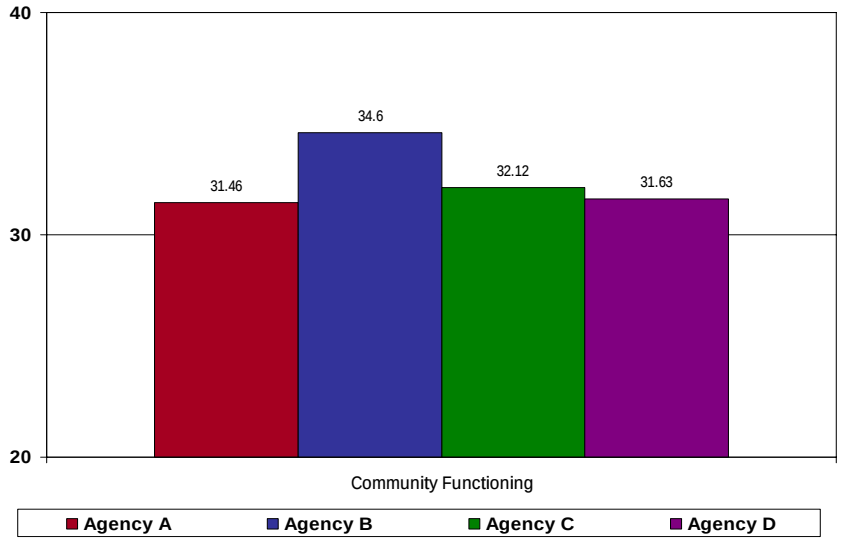
Figure 50. Activities of Daily Living, and Meaningful Activities Subscales Pretest Mean Scores by Agency



- **Meaningful Activities.** Figure 50 displays the means scores for workers' ratings of consumers' engagement in meaningful activities. Across agencies, workers indicated that on average consumers are engaged almost weekly in meaningful activities (Total sample *M* = 2.72); this mean score is slightly lower (less involvement in meaningful activities) than the statewide mean (*M* = 2.81; Ohio Department of Mental Health, 2009).
  - There were three statistically significant differences between agencies at baseline. Workers' ratings in Agency B were higher (more frequent engagement in meaningful activities) than workers' ratings in Agency A, Agency C, and Agency D.

- **Community Functioning.** Figure 51 displays the overall mean score for workers' ratings of consumers' community functioning. Across agencies, workers indicated that on average consumers have a satisfactory level of community functioning (*M* = 32.43); this mean scores is lower (poorer community functioning) than the statewide mean (*M* = 40.53; Ohio Department of Mental Health, 2009).
  - There were two statistically significant differences between agencies at baseline. Workers' ratings in Agency B were higher (better community functioning) than workers' ratings in Agency A; and workers' ratings in Agency C were higher than workers' ratings in Agency D.

Figure 51. Overall Community Functioning Pretest Mean Scores by Agency



CONCLUSIONS

After participating in the intervention there were fewer significant increases in scores of Service Empowerment, Satisfaction with Treatment Planning, and Using Data in Treatment Planning, than estimated. There are some possible explanations. First, the unique contribution of this intervention was that both consumers and case managers would participate in training and be empowered to work together. However, we only had about half of consumer participants attend training which may have affected the ability of the program to produce an effect. Of the consumers that did participate, almost all had positive ratings and comments about the value of the training, the participatory nature, and their sense of empowerment. Reports from the agencies' indicated that the time commitment (2 days, about 5 hours each day, with lunch) was often prohibitive as people had other obligations. Often symptoms of mental illness may interfere with an individual's ability to participate in a seated, group format. Another barrier was the availability of transportation to the training; public transportation was not universally available, and assisted transportation was only available in one location.

Second, the intervention was primarily designed to extend the use of data to treatment planning, for example in identifying goals and tracking progress. However, treatment planning occurs within the context of the relationship between consumers and case managers. This relationship is complex and influenced by multiple factors not accounted for or specified in this study. In a focus group with adult mental health consumers prior to this project, when asked about an ideal treatment planning process, consumers were quite expansive in their suggestions and often focused on their relationship with their case manager. Thus using data is one aspect of treatment planning and treatment planning is only one activity consumers and case managers engage in. Third, because the intervention was focused on treatment planning, and not the entire scope of the consumer–case manager relationship, the intervention may not have been sufficient to produce the expected changes in the measures used. Although the specificity of the intervention may have impacted our ability to detect a large impact, individual comments from consumers, case managers, and agency personnel indicated they valued the training programs.

Accrediting organizations often require that agencies collect data; the principles of the training program can be applied to any type of outcome measure that agencies find useful. Data can be used to identify strengths and weaknesses, help identify goals, help prompt further questions, and assist in justifying medical necessity. The utility depends on the agencies' goals and needs, and individual consumers' and case managers' background and training.

Two Purposes – While one purpose of this project was to examine program effectiveness around using data in treatment planning, the second purpose was to examine potential factors that may influence the treatment processes, in terms of organizational factors, agency orientation toward recovery, and consumer readiness for mental health treatment. These factors have been identified in the literature as related to consumer empowerment and recovery and important to investigate.

Organizational Factors/Readiness for Change – In particular, literature has shown that organizational factors such as motivation, resources, and communication influence how agencies adopt practices such as a new or increased orientation toward consumer involvement, person-centered planning, and recovery (Simpson, 2002). Lehman, Greener and Simpson (2002) identified motivational readiness, institutional resources, staff attributes, and organizational climate as predominant factors in organizational readiness to change; and these factors have been found to influence consumer treatment engagement, rapport with counselors, and consumer outcomes. Organizational climate measures have also been associated with program satisfaction, use of program materials, counseling skills, and therapeutic rapport (Greener, Joe, Simpson, Rowan-Szal, & Lehman, 2007; Simpson, Joe, & Rowan-Szal, 2007). Indeed, Regression analyses indicated that organizational factors explained 19% of the variance in rapport, and 27% of the variance in treatment satisfaction (Greener, et al., 2007). In the current study, case managers perceived external sources as strong pressures for change. And although case managers rated staffing resources lowest, they rated their efficacy highest. Additionally, case managers rated their job satisfaction second highest of all the organizational factors, signifying they like their jobs, feel appreciated, and value their work. This is particularly salient as higher job satisfaction has been associated with lower burnout and subsequently fewer turnover intentions. These results indicate the need for further study on how these organizational factors may be related to consumers' Service Empowerment and both consumers' and case managers' Agency Recovery Orientation.

Agency Recovery Orientation – Recovery-oriented environments encourage individuality, promote positive portrayals of persons with mental illness, fight discrimination, focus on strengths, use hopeful language, offer a variety of treatment and support options, involve all types of supports in programs and services, encourage advocacy, assist in community connections, and foster a variety of social interests and meaningful activities (O'Connell, Tondora, Croog, Evans, & Davidson, 2005). In this study, both consumers and case managers rated subscales similarly. Choice was rated highest, meaning agencies offer access to treatment records, allow consumers to choose providers and treatments, and that staff refrain from coercive measures to influence choice. Community Involvement was rated lowest indicating there is room for improvement involving consumers on agency advisory boards, program decisions, and facilitating community volunteering. Future work will look at how consumers' and case managers' ratings of the agency orientation toward recovery are associated with other variables included in this study, for example, with Organizational factors, and Service Empowerment.

Readiness for Mental Health Treatment – Previously, readiness to change models have been used with substance use disorders but have only recently been adapted for use with persons with mental illnesses (Bellis, 1993; Flinn, 2004; Hilburger & Lam, 1999; Heesch, Velasquez, & von Sternberg, 2005). Readiness to change was positively related to individual recovery, hope, asking for help, being goal directed, relying on others, and symptom coping (Flinn, 2004). A future report will examine Readiness for Mental Health Treatment in greater detail with this sample and how it may be related with Service Empowerment, and Agency Orientation toward Recovery, for example.

Additionally, we noticed that when both consumers and case managers rated variables, ratings were fairly similar. This appeared true for ratings of Service Empowerment, Satisfaction with Treatment Planning, and Agency Recovery Orientation. However we have not yet tested whether these apparent similarities are in fact statistically similar. A future report will test this using Hierarchical Linear Modeling (HLM). HLM is used because participating case managers may be associated with more than one consumer participating in the project.

Next Steps

The next step is to prepare small Bulletins to make the extensive material in this report more accessible for general audiences. These bulletins will focus on individual measures.

We also have additional data analyses to conduct. We will be comparing all measures rated by case managers (Organizational Culture/Readiness to Change, Agency Recovery Orientation, Service Empowerment, and Satisfaction with Treatment Planning). We will also compare all measures rated by consumers (Readiness for Mental Health Treatment, Agency Recovery Orientation, Service Empowerment, and Satisfaction with Treatment Planning).

A future report will also examine the relationship between these concepts, for example, how Consumer Readiness for Mental Health Treatment and Service Empowerment are related, or how Organizational Readiness to Change is related to Agency Recovery Orientation. Because participating case managers may be associated with more than one consumer participating in the project, we will use Hierarchical Linear Modeling (HLM) to test these relationships. Additionally we will be comparing data from this project with available historical data (for example with data from the Longitudinal Consumer Outcomes study conducted previously by this office).

REFERENCES

Adams, N., & Grieder, D. M. (2005). *Treatment Planning for Person-Centered Care: The Road to Mental Health and Addiction Recovery.* USA: Elsevier Academic Press.

Allen, A., Montgomery, M., Tubman, J., Frazier, L., & Escovar, L. (2003). The effects of assessment feedback on rapport-building and self-enhancement processes. *Journal of Mental Health Counseling, 36*(3), 165-181.

Bellis, J. (1993). The transtheoretical model of change applied to psychotherapy: a psychometric assessment of related instruments (Doctoral dissertation, University of Rhode Island, 1993). *Dissertation Abstracts International, 54,* 3845.

Commission on Accreditation of Rehabilitation Facilities (CARF) International (2009). Behavioral Health Standards Manual.

Crane-Ross, D., Lutz, W. J., & Roth, D. (2006). Consumer and case manager perspectives of Service Empowerment: Relationship to mental health recovery. *Journal of Behavioral health Services and Research, 33*(2), 142-155.

DiClemente, C. C., Marinilli, A. S., Singh, M., & Bellino, L. E. (2001). The role of feedback in the process of health behavior change. *American Journal of Health Behavior, 25*(3), 217-228.

Flinn, S. R., (2004). Reliability and validity of the Recovery Assessment Scale for consumers with severe mental illness living in group home settings. (Doctoral dissertation, Kent State University, 2004). *Dissertation Abstracts International, 65,* 4115.

Greener, J. M., Joe, G. W., Simpson, D. D., Rowan-Szal, G. A., & Lehman, W. E. K. (2007). Influence of organizational functioning on client engagement in treatment. *Journal of Substance Abuse Treatment, 33*(2), 139-147.

Harmon, C., Hawkins, E. J., Lambert, M. J., Slade, K., & Whipple, J. L. (2005). Improving outcomes for poorly responding clients: The use of clinical support tools and feedback to clients. *Journal of Clinical Psychology, 61*(2), 175-185.

Heesch, K. C., Velasquez, M. M., & von Sternberg, K. (2005). Readiness for mental health treatment and for changing alcohol use in patients with comorbid psychiatric and alcohol disorders: Are they congruent? *Addictive Behaviors, 30,* 531-543.

Hilburger, J., & Lam, C. S. (1999). Readiness for change among people with severe and persistent mental illness in a rehabilitation program. *Rehabilitation Counseling Bulletin, 43*(1), 12-19.

Hill, S. A., & Laugharne, R. (2006). Decision making and information seeking preferences among psychiatric patients. *Journal of Mental Health, 15*(1), 75-84.

Lehman, W. E. K., Greener, J. M., & Simpson, D. D. (2002). Assessing organizational readiness for change. *Journal of Substance Abuse Treatment, 22,* 197-209.

Linhorst, D. M. (2006). *Empowering people with severe mental illness: A practical guide.* Oxford University Press.

New Freedom Commission on Mental Health, (2003). *Achieving the Promise: Transforming Mental Health Care in America. Final Report.* DHHS Pub. No. SMA-03-3832. Rockville, MD.

O'Connell, M., Tondora, J., Croog, G., Evans, A., & Davidson, L. (2005). From rhetoric to routine: Assessing perceptions of recovery-oriented practices in a state mental health and addiction system. *Psychiatric Rehabilitation Journal, 28*(4), 378-386.

Ohio Department of Mental Health (2009). Data retrieved from the Ohio Mental Health Consumer Outcomes System Data Mart. Retrieved September 16, 2009 from http://mentalhealth.ohio.gov/what-we-do/protect-and-monitor/consumer-outcomes/data-mart/index.shtml

Ohio Department of Mental Health (2006). *Ohio Mental Health Consumer Outcomes System report 10: Adult Empowerment.* Columbus, OH: Ohio Department of Mental Health. Available online at: http://www.mh.state.oh.us/what-we-do/protect-and-monitor/consumer-outcomes/reports/quarterly-reports/index.shtml

Ohio Department of Mental Health (2005a). *Ohio Mental Health Consumer Outcomes System procedural manual, 7th ed.* Columbus, OH: Ohio Department of Mental Health.

Ohio Department of Mental Health (2005b). *Preliminary Normative Analysis – Adult Consumer Form A and Form B (Quality of Life, Financial Quality of Life, Symptom Distress, and Empowerment).* Columbus, OH: Ohio Department of Mental Health. Available online at: http://www.mh.state.oh.us/what-we-do/protect-and-monitor/consumer-outcomes/reports/statewide-norms.shtml

Ohio Mental Health Outcomes Task Force (2001). *Vital signs: A statewide approach to measuring consumer outcomes in Ohio's publicly-supported community mental health system.* Columbus, OH: Ohio Department of Mental Health.

Simpson, D. D. (2002). A conceptual framework for transferring research to practice. *Journal of Substance Abuse Treatment, 22*(4), 171-182.

Simpson, D. D., Joe, G. W., & Rowan-Szal, G. A. (2007). Linking the elements of change: Program and client responses to innovation. *Journal of Substance Abuse and Treatment, 33*(2), 201-209.

Substance Abuse and Mental Health Services Administration (2005). *Free to Choose: Transforming Behavioral Health Care to Self-Direction.* DHHS Publication No. SMA-05-3982. Rockville, MD: Center for Mental Health Services.

Texas Christian University Institute of Behavioral Research. (2002). *Organizational Readiness for Change Treatment Staff Version (TCU ORC-S).* Available online at: http://www.ibr.tcu.edu/pubs/datacoll/tcutreatment.html#ComOrganizationalAssessments

Wills, C. E., & Holmes-Rovner, M. (2006). Integrating decision making and mental health interventions research: Research directions. *Clinical Psychology: Science and Practice, 13*(1), 9-25.

APPENDIX A: TABLES

Table 1A. Percent of **Consumer Participants Demographic Variables** by state, by project total, and by Agency (Baseline)

		Statewide	All Project Agencies	Agency A	Agency B	Agency C	Agency D	χ^2
Sample Size	Total (at baseline)	n/a	272	71	63	78	60	
Gender	Male	58.8	34.6	36.4	32.8	36.4	37.3	0.32
	Female	41.2	62.1	63.8	67.2	63.6	62.7	
Race	White/Caucasian	74.6	62.9	52.1	65.1	64.1	71.7	12.79
	African American	20.5	18.8	18.3	19.0	21.8	15.0	
	Other	3.0	7.4	8.5	6.3	6.4	8.3	
	Unknown/Missing	1.9	11.0	21.1	9.5	7.7	5.0	
Age	Less than 25 years	15.3	7.0	0	7.9	10.3	10.0	23.42
	25-34	21.5	14.0	7.0	15.9	19.2	13.3	
	35-44	23.1	20.2	21.1	12.7	25.6	20.0	
	45-54	24.6	37.9	52.1	38.1	29.5	31.7	
	55-64	11.2	15.1	14.1	17.5	10.3	20.0	
	65+	4.4	2.9	1.4	3.2	3.8	3.3	
	Unknown/Missing	<0.1	2.9	4.2	4.8	1.3	1.7	
Marital Status	Never married	35.4	34.9	26.8	42.9	33.3	38.3	16.02
	Married	14.4	8.8	5.6	14.3	6.4	10.0	
	Separated/Divorced	27.7	41.5	49.3	27.0	48.7	38.3	
	Other[1]	7.4	4.4	2.8	4.8	3.8	6.7	
	Missing	15.2	10.3	15.5	11.1	7.7	6.7	

Notes. Differences are significant at * $p < .05$, ** $p < .01$, and *** $p < .001$. Statewide percentages were obtained from the Ohio Mental Health Consumer Outcomes System Report 19 (Revised December 2008) which presents percents statewide for 2007. Percents used were Outcomes Expected for gender, race, age, and primary diagnosis as these data are available from MACSIS; for all other variables, percents are Outcomes Received.

[1] Marital Status Other includes Widowed and Living together.

Table 1B. Percent of **Consumer Participants Demographic Variables** by state, by project total, and by Agency (Baseline)

		Statewide	All Project Agencies	Agency A	Agency B	Agency C	Agency D	χ^2
Education	Less than H.S. diploma/GED	26.8	27.6	26.8	15.9	37.2	28.3	13.93
	H.S. diploma/GED	32.0	31.6	29.6	34.9	26.9	36.7	
	More than H.S. diploma/ GED and less than 4 yr degree	24.5	25.7	23.9	33.3	21.8	25.0	
	4 yr degree and above	5.2	6.3	5.6	7.9	5.1	6.7	
	Unknown/Missing	11.5	8.8	14.1	7.9	9.0	3.3	
Living Situation	Own house/apartment	48.6	58.5	49.3	47.6	60.3	78.3	29.39 Agency A & D; Agency B & D
	Relatives home	19.2	11.4	11.3	17.5	7.7	10.0	
	Supervised living	6.2	10.3	8.5	15.9	12.8	3.3	
	Other[1]	15.0	12.1	23.9	7.9	11.5	3.3	
	Unknown/Missing	11.0	7.7	7.0	11.1	7.7	5.0	

Notes. Differences are significant at * $p < .05$, ** $p < .01$, and *** $p < .001$. Statewide percentages were obtained from the Ohio Mental Health Consumer Outcomes System Report 19 (Revised December 2008) which presents percents statewide for 2007. Percents used were Outcomes Expected for gender, race, age, and primary diagnosis as these data are available from MACSIS; for all other variables, percents are Outcomes Received.
[1]Other Living Situations includes: Friend's home, Nursing home, Foster care, MH Treatment Center, Homeless, Correctional facility, and Other.

Table 1C. Percent of **Consumer Participants Demographic Variables** by state, by project total, and by Agency (Baseline)

		Statewide	All Project Agencies	Agency A	Agency B	Agency C	Agency D	χ^2
Employment	Full time	10.4	1.8	4.2	1.6	0	1.7	23.56
	Part time	8.9	5.1	4.2	9.5	3.8	3.3	
	Unemployed	30.1	27.2	29.6	30.2	21.8	28.3	
	Disabled	24.7	51.5	40.8	46.0	62.8	55.0	
	Other[1]	10.7	7.0	14.1	1.6	3.8	8.3	
	Unknown/Missing	15.1	7.4	7.0	11.1	7.7	3.3	
Primary Diagnosis	Schizophrenia and Other Psychotic Disorders	18.9	37.8	31.3	35.7	39.1	46.3	9.92
	Mood Disorders[2]	55.1	59.8	67.2	60.7	59.4	50.0	
	All Other Diagnoses[3]	8.9	9.6	1.5	3.6	1.5	3.7	

Notes. Differences are significant at * $p < .05$, ** $p < .01$, and *** $p < .001$. Statewide percentages were obtained from the Ohio Mental Health Consumer Outcomes System Report 19 (Revised December 2008) which presents percents statewide for 2007. Percents used were Outcomes Expected for gender, race, age, and primary diagnosis as these data are available from MACSIS; for all other variables, percents are Outcomes Received.
[1]Other Employment includes: Sheltered employment, Homemaker, Student, Retired, Inmate, and Other.
[2]Mood Disorders includes Depressive disorders, Bipolar disorders, and Other Mood disorders.
[3]All Other Diagnoses includes Substance-Abuse Disorders, Anxiety Disorders, Adjustment Disorders, and Personality Disorders.

Table 2A. Percents **Case Manager Participants Demographic Variables** by project total, and by Agency (Baseline)

		All Project Agencies	**Agency A**	**Agency B**	**Agency C**	**Agency D**	χ^2
Sample Size	Total (at baseline)	66	31	10	16	9	
Gender	Male	27.3	38.7	20.0	18.8	11.1	4.08
	Female	72.7	61.3	80.0	81.3	88.9	
Race	White/Caucasian	77.3	64.5	90.0	93.8	77.8	6.27
	Black/African American, Other	22.7	35.5	10.0	6.3	22.2	
Age	Under 30	36.4	41.9	20.0	50.0	11.1	11.00
	31 – 40	28.8	32.3	40.0	18.8	22.2	
	41 – 50	24.2	22.6	30.0	12.5	44.4	
	51 or older	10.6	3.2	10.0	18.8	22.2	
Education	Less than H.S. diploma, HS diploma/GED, Trade/Tech school, Some college, 2 yr college/Associates	22.7	29.0	10.0	18.8	22.2	3.35
	4 yr college/ Undergraduate	47.0	45.2	40.0	50.0	55.6	
	Post-college education	30.3	25.8	50.0	31.3	22.2	
Discipline	Social Work	27.9	28.6	10.0	50.0	11.1	9.16
	Psychology	19.7	17.9	20.0	21.4	22.2	
	Sociology	13.1	10.7	30.0	7.1	11.1	
	Other or N/A	39.3	42.9	40.0	21.4	55.6	

Notes. Differences are significant at * $p < .05$, ** $p < .01$, and *** $p < .001$.

Table 2B. Percents **Case Manager Participants Demographic Variables** by project total, and by Agency.

		All Project Agencies	χ^2
Employed at current agency[1]	Less than one year	33.3	N/A
	1 – 2 years	22.7	
	3 – 6 years	19.7	
	6 or more years	24.2	
Case Management Experience[2]	Less than one year	28.8	N/A
	1 – 2 years	9.1	
	3 – 6 years	22.7	
	6 – 10 years	22.7	
	More than 10 years	16.7	
Mental Health System Experience[3]	Less than one year	22.7	N/A
	1 – 2 years	13.6	
	3 – 6 years	16.7	
	6 – 10 years	27.3	
	More than 10 years	19.7	
Active Caseload Size[4]	0 – 20	16.7	N/A
	21 – 30	18.2	
	31 – 40	22.7	
	41 – 50	28.8	
	More than 50	13.6	

Notes. Differences are significant at * $p < .05$, ** $p < .01$, and *** $p < .001$. [1, 2, 3, 4] There were insufficient cases within cells (categories by agency) to report chi-square analyses.

Table 3A. Reliability Estimates: Service Empowerment, Readiness for Mental Health Treatment, and Organizational Readiness to Change

		# items	Baseline α	Time 2 α	Time 3 α
Service Empowerment (Consumer)	Service Decisions	5	.76	.72	.76
	Service Relationship	19	.95	.94	.93
Service Empowerment (Case Manager)	Service Decisions	4	.73	.42	.52
	Understanding Consumers	2	.44	.26	.43
	Service Relationship	6	.75	.68	.67
	Share Self	2	.56	.59	.60
Readiness for Mental Health Treatment (Consumer)	Precontemplation	3	.46	.57	.63
	Contemplation	3	.72	.72	.70
	Action	3	.64	.76	.81
	Maintenance	3	.40	.39	.40
Organizational Readiness to Change (Case Manager)	Program Needs	8	.73	.84	.79
	Training Needs	8	.81	.85	.77
	Pressures for Change	7	.48	.66	.59
	Staffing Resources	6	.76	.68	.73
	Training Resources	4	.78	.60	.67
	Staff Efficacy	5	.61	.70	.57
	Staff Adaptability	4	.60	.56	.50
	Organizational Mission	5	.63	.59	.82
	Organizational Autonomy	5	.45	.49	.37
	Organizational Change	5	.55	.62	.68
	Training Utilization	3	.77	.73	.89
	Job Satisfaction	6	.72	.71	.83

Table 3B. Reliability Estimates: Agency Recovery Orientation and Satisfaction with Treatment Planning

		# items	Baseline α	Time 2 α	Time 3 α
Agency Recovery Orientation (Consumer)	Total Score	32	.93	.95	.94
	Life Goals	11	.84	.87	.82
	Involvement	5	.77	.78	.82
	Diversity of Treatment Options	5	.73	.80	.81
	Choice	5	.71	.74	.69
	Individually-Tailored Services	4	.73	.82	.77
Agency Recovery Orientation (Case Manager)	Total Score	32	.88	.92	.88
	Life Goals	11	.75	.78	.73
	Involvement	5	.81	.71	.78
	Diversity of Treatment Options	5	.74	.67	.67
	Choice	5	.56	.46	.46
	Individually-Tailored Services	4	.55	.51	.56
Satisfaction with Treatment Planning (Consumer)	Positive Therapeutic Relationship	8	.90	.92	.93
	Normalization	3	.73	.75	.76
	Frequency	2	.63	.66	.73
	Control	2	.57	.61	.61
Satisfaction with Treatment Planning (Case Manager)	Therapeutic Orientation	5	.74	.49	.60
	Normalization	5	.62	.49	.37
	Control	3	.44	.29	.54

Table 3C. Reliability Estimates: Knowledge of Consumer Outcomes, Using Data in Treatment Planning, and Workshop Evaluations

		# items	Baseline α	Time 2 α	Time 3 α
Knowledge of Consumer Outcomes (Consumer)	Knowledge of Consumer Outcomes – True items	5	.91	.89	.84
	Knowledge of Consumer Outcomes – False items	3	.43	.53	.24
Knowledge of Consumer Outcomes (Case Manager)		6	.87	.83	.85
Using Data in Treatment Planning (Consumer)		11	.96	.93	.93
Using Data in Treatment Planning (Case Manager)	Outcomes Communication	6	.86	.57	.66
	Using Data in Treatment Planning	4	.87	.77	.87
	Strengths/Red Flags	2	.51	.61	.53
CDS Workshop Evaluation (Consumer)	Satisfaction	6	n/a	.94	.99
	Application	4	n/a	.89	.94
Workshop Evaluation (Case Manager)		8	n/a	.89	-.10

Table 3D. Reliability Estimates: Indicators of Recovery (Ohio Outcomes System)

		# items	Pre-test α
Quality of Life (Consumer)	Quality of Life subscale	9	.82
	Financial Status subscale	3	.89
Symptom Distress (Consumer)		15	.93
Empowerment (Consumer)	Self-Esteem/Self Efficacy	9	.89
	Power/Powerlessness	8	.65
	Community Activism and Autonomy	6	.85
	Optimism and Control Over the Future	4	.53
	Righteous Anger	4	.45
Community Functioning (Provider rated)	Meaningful Activities	6	.85

Table 4A. Results of ANOVAs (comparing agencies at baseline) and paired *t*-tests (comparing over time within agency) for **Sufficiency of Contact and Say Over Services (Consumer)**

		Time 1			Time 2			Time 3			Baseline	Time 1 with Time 2		Time 2 With Time 3	
		N	***M***	*SD*	*N*	***M***	*SD*	*N*	***M***	*SD*	*F*	*N*	*t*	*N*	*t*
Frequency of Contact with People from the Mental Health Agency	Agency A	70	**3.54**	.61	61	**3.21**	.73	48	**3.35**	.84	n/a	61	**3.57*** **	46	-0.73
	Agency B	62	**3.42**	.90	46	**3.17**	.85	38	**3.08**	.88		46	1.35	37	-0.16
	Agency C	75	**3.87**	.68	71	**3.72**	.74	58	**3.69**	.84		68	**1.84**$^{+}$	52	0.35
	Agency D	59	**3.56**	.75	47	**3.26**	.87	40	**3.43**	.64		47	**2.34***	39	**-2.06***
Frequency of Contact with Case Manager	Agency A	70	**3.14**	.64	61	**2.98**	.50	48	**3.04**	.58	n/a	61	**3.08****	46	-0.20
	Agency B	62	**3.13**	.76	45	**2.93**	.65	38	**2.79**	.99		45	1.15	36	0.73
	Agency C	74	**3.55**	.69	70	**3.50**	.76	57	**3.46**	.71		67	0.71	52	1.06
	Agency D	59	**3.49**	.70	46	**3.39**	.61	39	**3.26**	.82		46	1.00	38	0.73
Importance of Contact with the Mental Health Agency	Agency A	70	**3.24**	.84	61	**3.38**	.73	48	**3.33**	.83	0.52	61	**-1.84**$^{+}$	46	0.18
	Agency B	62	**3.37**	.85	46	**3.28**	.86	38	**3.47**	.69		46	1.36	37	-0.42
	Agency C	75	**3.37**	73	71	**3.31**	.73	58	**3.19**	.85		68	0.87	52	1.23
	Agency D	59	**3.41**	.87	47	**2.98**	.94	40	**3.35**	.95		47	**2.63***	39	**-2.57***
Importance of Say in Services	Agency A	69	**3.45**	.76	60	**3.47**	.79	49	**3.47**	.62	0.39	59	0.00	47	0.00
	Agency B	62	**3.34**	.81	46	**6.50**	.66	38	**3.29**	.87		46	-1.03	37	1.67
	Agency C	73	**3.48**	.73	70	**3.33**	.76	56	**3.39**	.76		65	1.47	49	-0.17
	Agency D	59	**3.41**	.87	46	**3.28**	.69	39	**3.44**	.85		46	0.31	38	-1.23

Notes. Differences are significant at $^{+}p < .10$ * $p < .05$, ** $p < .01$, and *** $p < .001$. Means are reported for all consumers/case managers with data at the noted time-point. Sample size (*N*) for paired *t*-tests change because the statistics are computed only if the individual has data at both time points used in the comparison.

Table 4B. Results of *t*-tests Comparing **Service Empowerment by Gender** at Baseline

		Males		**Females**		
		M	*SD*	***M***	*SD*	*t*
Service Empowerment (Consumer)	Service Decisions	**2.58**	0.76	**2.90**	0.71	**-3.40****
	Service Relationship	**2.65**	0.67	**2.95**	0.78	**-3.05****
Service Empowerment (Case Manager)	Service Decisions	**3.70**	0.56	**3.81**	0.56	-0.72
	Understanding Consumers	**3.69**	0.49	**3.82**	0.41	-1.04
	Service Relationship	**4.47**	0.33	**4.58**	0.36	-1.10
	Share Self	**2.83**	0.87	**2.85**	0.69	-0.10

Notes. Differences are significant at * $p < .05$, ** $p < .01$, and *** $p < .001$.

Table 4C. Results of Correlations Comparing **Service Empowerment Change Scores** and Dose within Agency

		Initial intervention group: Compare Time 1 and 2 Change Scores with Dose at Time 2		Wait-list control group: Compare Time 2 and 3 Change Scores with Dose at Time 3	
		Agency A *r*	Agency B *r*	Agency C *r*	Agency D *r*
Service Empowerment (Consumer)	Service Decisions	-.11	-.02	-.08	-.18
	Service Relationship	-.16	-.13	.03	.18

Notes. Differences are significant at * $p < .05$, ** $p < .01$, and *** $p < .001$.

Table 4D. Results of ANOVAs (comparing agencies at baseline) and paired *t*-tests (comparing over time within agency) for **Service Empowerment (Consumer)**

		Time 1			Time 2			Time 3			Baseline	Time 1 with Time 2		Time 2 With Time 3	
		N	***M***	*SD*	*N*	***M***	*SD*	*N*	***M***	*SD*	*F*	*N*	*t*	*N*	*t*
Service Decisions	Agency A	70	**2.67**	.73	61	**2.77**	.77	49	**2.80**	.62	1.01	61	-1.25	47	-0.06
	Agency B	59	**2.88**	.74	45	**2.95**	.73	38	**2.93**	.73		45	-1.20	36	0.21
	Agency C	73	**2.78**	.67	70	**2.79**	.67	53	**2.88**	.73		65	-0.27	47	-0.45
	Agency D	59	**2.83**	.77	46	**2.85**	.70	40	**2.98**	.61		46	-1.04	39	-0.69
Service Relationship	Agency A	70	**2.63**	.82	61	**2.72**	.77	49	**2.78**	.72	**3.25*** Agency A vs. Agency D	61	-0.68	47	-0.78
	Agency B	60	**2.86**	.76	45	**2.85**	.84	37	**2.91**	.76		45	-0.03	35	0.37
	Agency C	74	**2.86**	.75	70	**2.75**	.65	53	**2.83**	.70		66	1.14	47	-0.66
	Agency D	59	**3.04**	.62	46	**3.07**	.51	40	**3.07**	.47		46	-0.72	39	0.19

Notes. Differences are significant at $^{+}p < .10$ * $p < .05$, ** $p < .01$, and *** $p < .001$. Means are reported for all consumers/case managers with data at the noted time-point. Sample size (*N*) for paired *t*-tests change because the statistics are computed only if the individual has data at both time points used in the comparison.

Table 4E. Means for **Service Empowerment (Case Manager)** by time and by Agency

		Time 1			Time 2			Time 3		
		N	***M***	*SD*	*N*	***M***	*SD*	*N*	***M***	*SD*
Service Decisions	Agency A	31	**3.75**	.62	24	**3.88**	.26	21	**4.00**	.43
	Agency B	10	**3.79**	.38	6	**3.88**	.44	6	**4.08**	.49
	Agency C	16	**3.66**	.52	22	**4.00**	.47	18	**4.00**	.49
	Agency D	9	**4.09**	.53	11	**4.12**	.59	11	**4.18**	.42
Understanding Consumers	Agency A	31	**3.66**	.45	24	**3.92**	.41	21	**4.05**	.38
	Agency B	10	**3.95**	.50	6	**3.75**	.42	6	**4.68**	.33
	Agency C	16	**3.88**	.34	22	**3.93**	.44	18	**3.94**	.38
	Agency D	8	**3.88**	.35	11	**4.00**	.45	11	**3.82**	.25
Service Relationship	Agency A	31	**4.45**	.31	24	**4.66**	.28	21	**4.59**	.27
	Agency B	10	**4.62**	.44	6	**4.64**	.29	6	**4.68**	.33
	Agency C	16	**4.57**	.36	22	**4.59**	.35	18	**4.62**	.30
	Agency D	9	**4.76**	.30	11	**4.63**	.25	11	**4.68**	.32
Share Self	Agency A	31	**2.76**	.55	24	**2.96**	.61	21	**2.69**	.62
	Agency B	10	**2.55**	.86	6	**2.92**	.20	6	**2.50**	.63
	Agency C	16	**3.28**	.93	22	**3.00**	.85	18	**2.56**	.51
	Agency D	9	**2.72**	.57	11	**2.59**	.66	11	**2.59**	.63

Notes. ANOVAs and paired *t*-tests were not conducted by agency because there were insufficient sample sizes (small numbers of case managers) in some agencies. Means are reported for all consumers/case managers with data at the noted time-point.

Table 4F. Results of *t*-tests (comparing intervention groups at baseline) and paired *t*-tests (comparing over time within intervention group) for **Service Empowerment (Case Manager)**

		Time 1			Time 2			Time 3			Baseline	Time 1 with Time 2		Time 2 With Time 3	
		N	***M***	*SD*	*N*	***M***	*SD*	*N*	***M***	*SD*	*t*	*N*	*t*	*N*	*t*
Service Decisions	Initial Intervention	41	**3.76**	.57	30	**3.88**	.30	27	**3.92**	.47	-0.37	22	-0.96	18	-1.51
	Wait-list Control	25	**3.81**	.55	33	**4.04**	.51	29	**4.07**	.46		20	**-1.91**$^{+}$	24	-1.10
Understanding Consumers	Initial Intervention	41	**3.73**	.48	30	**3.88**	.41	27	**4.06**	.40	-1.30	22	**-1.78**$^{+}$	18	-1.30
	Wait-list Control	24	**3.88**	.34	33	**3.95**	.44	29	**3.90**	.34		19	-0.68	24	0.40
Service Relationship	Initial Intervention	41	**4.49**	.35	30	**4.66**	.27	27	**4.61**	.28	-1.66	22	**-2.49***	18	1.15
	Wait-list Control	25	**4.64**	.35	33	**4.60**	.32	29	**4.64**	.30		20	0.79	24	-1.26
Share Self	Initial Intervention	41	**2.71**	.63	30	**2.95**	.55	27	**2.65**	.62	**-2.04***	22	**-1.87**$^{+}$	18	**2.40***
	Wait-list Control	25	**3.08**	.85	33	**2.86**	.80	29	**2.57**	.55		20	1.50	24	1.62

Notes. Differences are significant at $^{+}p < .10$ * $p < .05$, ** $p < .01$, and *** $p < .001$. ANOVAs and paired *t*-tests were conducted by intervention group (Initial Intervention [Agency A and Agency B] and Wait-list Control [Agency C and Agency D]) because there were insufficient sample sizes (small numbers of case managers) in some agencies. Means are reported for all consumers/case managers with data at the noted time-point. Sample size (*N*) for paired *t*-tests change because the statistics are computed only if the individual has data at both time points used in the comparison.

Table 5A. Results of *t*-tests Comparing **Consumer Readiness for Mental Health Treatment by Gender** at Baseline

		Males		**Females**		
		M	*SD*	***M***	*SD*	*t*
Readiness for Mental Health Treatment (Consumer)	Precontemplation	**2.39**	0.75	**2.02**	0.72	**3.82*** **
	Contemplation	**4.16**	0.58	**4.37**	0.55	**-2.81** **
	Action	**4.04**	0.63	**4.32**	0.55	**-3.74*** **
	Maintenance	**3.62**	0.69	**3.84**	0.75	**-2.24* **

Notes. Differences are significant at * $p < .05$, ** $p < .01$, and *** $p < .001$.

Table 5B. Results of Correlations Comparing **Readiness for Mental Health Treatment Change Scores (Consumer)** and Dose within Agency

		Initial intervention group: Compare Time 1 and 2 Change Scores with Dose at Time 2		Wait-list control group: Compare Time 2 and 3 Change Scores with Dose at Time 3	
		Agency A *r*	Agency B *r*	Agency C *r*	Agency D *r*
Readiness for Mental Health Treatment	Precontemplation	.07	-.07	-.07	-.09
	Contemplation	-.03	-.12	.14	-.19
	Action	-.14	-.01	.18	-.08
	Maintenance	-.18	-.20	.12	.20

Notes. Differences are significant at * $p < .05$, ** $p < .01$, and *** $p < .001$.

Table 5C. Results of *t*-tests (comparing intervention groups at baseline) and paired *t*-tests (comparing over time within intervention group) for **Consumer Readiness for Mental Health Treatment (Consumer)**

		Time 1			Time 2			Time 3			Time 1 with Time 2		Time 2 With Time 3	
		N	***M***	*SD*	*N*	***M***	*SD*	*N*	***M***	*SD*	*N*	*t*	*N*	*t*
Precontemplation (Participation Cluster)	Agency A	41	**1.79**	.76	37	**1.90**	.61	30	**1.89**	.56	37	-1.15	29	0.59
	Agency B	21	**2.06**	.86	18	**1.98**	.74	16	**2.08**	.74	18	0.35	16	-0.70
	Agency C	31	**2.02**	.72	24	**2.12**	1.13	21	**2.05**	.76	24	-1.12	18	0.05
	Agency D	32	**1.92**	.68	21	**2.19**	.92	19	**2.39**	.83	21	-0.20	19	-0.84
Precontemplation (Precontemplation Cluster)	Agency A	29	**2.25**	.76	24	**2.43**	.86	19	**2.53**	.91	24	-0.63	18	0.56
	Agency B	39	**2.38**	.67	28	**2.49**	.69	22	**2.42**	.95	28	-1.26	21	-0.23
	Agency C	41	**2.33**	.82	39	**2.33**	.66	27	**2.19**	.80	39	0.17	26	0.42
	Agency D	27	**2.40**	.46	25	**2.39**	.70	20	**2.24**	.51	25	0.10	20	0.88
Contemplation (Participation Cluster)	Agency A	41	**4.68**	.29	37	**4.40**	.51	30	**4.42**	.46	37	**3.95*****	29	0.60
	Agency B	21	**4.84**	.29	18	**4.56**	.55	16	**4.58**	.43	18	**1.77**$^{+}$	16	-0.64
	Agency C	31	**4.73**	.31	23	**4.64**	.40	21	**4.40**	.54	23	0.84	18	1.12
	Agency D	32	**4.71**	.33	21	**4.51**	.55	19	**4.53**	.49	21	1.42	19	-0.14
Contemplation (Precontemplation Cluster)	Agency A	29	**3.98**	.47	24	**4.13**	.69	19	**4.11**	.39	24	-0.72	18	0.13
	Agency B	39	**3.77**	.47	28	**3.89**	.64	22	**4.15**	.45	28	-1.34	21	**-1.94**$^{+}$
	Agency C	41	**3.90**	.46	39	**3.95**	.61	27	**4.20**	.66	39	-0.59	26	-1.25
	Agency D	27	**3.94**	.36	25	**4.09**	.49	20	**4.17**	.32	25	-1.52	20	-1.05

Notes. Differences are significant at $^{+}p < .10$ * $p < .05$, ** $p < .01$, and *** $p < .001$. Means are reported for all consumers/case managers with data at the noted time-point. Sample size (*N*) for paired *t*-tests change because the statistics are computed only if the individual has data at both time points used in the comparison.

Table 5D. Results of *t*-tests (comparing intervention groups at baseline) and paired *t*-tests (comparing over time within intervention group) for **Consumer Readiness for Mental Health Treatment (Consumer)**

		Time 1			Time 2			Time 3			Time 1 with Time 2		Time 2 With Time 3	
		N	***M***	*SD*	*N*	***M***	*SD*	*N*	***M***	*SD*	*N*	*t*	*N*	*t*
Action (Participation Cluster)	Agency A	41	**4.55**	.40	37	**4.25**	.42	30	**4.30**	.47	37	**3.63*** **	29	-0.46
	Agency B	21	**4.63**	.46	18	**4.31**	.63	16	**4.46**	.45	18	**2.08**$^{+}$	16	-0.88
	Agency C	31	**4.57**	.41	24	**4.43**	.46	21	**4.43**	.57	24	1.19	18	-0.62
	Agency D	32	**4.69**	.33	21	**4.48**	.40	19	**4.42**	.51	21	1.69	19	0.45
Action (Precontemplation Cluster)	Agency A	29	**3.77**	.63	24	**3.78**	.89	19	**3.75**	.81	24	0.00	18	0.17
	Agency B	39	**3.94**	.43	28	**3.93**	.67	22	**4.02**	.55	28	0.29	21	**-2.20***
	Agency C	41	**3.87**	.47	39	**3.98**	.58	27	**4.11**	.65	39	-0.76	26	-0.56
	Agency D	27	**3.78**	.51	25	**3.96**	.48	20	**3.78**	.65	25	**-2.27***	20	1.24
Maintenance (Participation Cluster)	Agency A	41	**3.98**	.69	37	**3.80**	.76	30	**3.89**	.84	37	1.42	29	-0.90
	Agency B	21	**3.98**	.73	18	**3.83**	.75	16	**3.97**	.66	18	0.73	16	-0.68
	Agency C	31	**4.19**	.61	24	**3.92**	.79	21	**3.89**	.54	24	1.60	18	0.57
	Agency D	32	**4.10**	.66	21	**4.02**	.59	19	**4.16**	.55	21	0.10	19	-1.09
Maintenance (Precontemplation Cluster)	Agency A	29	**3.71**	.58	24	**3.88**	.68	19	**3.74**	.62	24	-0.76	18	0.55
	Agency B	39	**3.33**	.68	28	**3.38**	.72	22	**3.64**	.73	28	-0.91	21	**-2.02**$^{+}$
	Agency C	41	**3.41**	.70	39	**3.69**	.62	27	**3.83**	.72	39	**-2.82** **	26	**-1.73**$^{+}$
	Agency D	27	**3.54**	.74	25	**3.52**	.57	20	**3.73**	.55	25	0.62	20	**-1.95**$^{+}$

Notes. Differences are significant at $^{+}p < .10$ * $p < .05$, ** $p < .01$, and *** $p < .001$. Means are reported for all consumers/case managers with data at the noted time-point. Sample size (*N*) for paired *t*-tests change because the statistics are computed only if the individual has data at both time points used in the comparison.

Table 6A. Results of *t*-tests Comparing **Organizational Readiness to Change (Case Manager) Scales by Gender** at Baseline

	Males		**Females**		
	M	*SD*	***M***	*SD*	*t*
Program Needs	**3.37**	0.43	**3.37**	0.56	-0.42
Training Needs	**2.90**	0.71	**3.12**	0.60	-1.29
Pressures for Change	**3.45**	0.44	**3.66**	0.40	-1.81
Staffing Resources	**2.84**	0.70	**2.77**	0.75	0.33
Training Resources	**3.40**	0.82	**3.23**	0.95	0.66
Staff Efficacy	**4.03**	0.49	**3.96**	0.45	0.55
Staff Adaptability	**3.71**	0.57	**3.53**	0.55	1.19
Organizational Mission	**3.40**	0.47	**3.36**	0.59	0.31
Organizational Autonomy	**3.12**	0.52	**3.29**	0.57	-1.08
Organizational Change	**3.39**	0.43	**3.22**	0.55	1.14
Training Utilization	**3.41**	0.62	**3.18**	0.75	1.15
Job Satisfaction	**3.83**	0.52	**3.9**	0.51	0.33

Notes. Differences are significant at * $p < .05$, ** $p < .01$, and *** $p < .001$.

Table 6B. Means of **Organizational Readiness to Change (Case Manager)** by time and Agency

		Time 1			Time 2			Time 3		
		N	***M***	*SD*	*N*	***M***	*SD*	*N*	***M***	*SD*
Program Needs	Agency A	30	**3.49**	.53	24	**3.03**	.57	21	**3.00**	.62
	Agency B	10	**3.08**	.43	6	**3.15**	.65	6	**3.19**	.39
	Agency C	16	**3.40**	.50	22	**3.28**	.87	17	**3.07**	.70
	Agency D	9	**3.25**	.58	11	**3.26**	.53	11	**3.29**	.62
Training Needs	Agency A	31	**3.20**	.63	24	**2.92**	.60	21	**2.94**	.55
	Agency B	10	**2.71**	.39	6	**2.83**	.67	6	**2.73**	.55
	Agency C	16	**2.85**	.63	22	**2.87**	.82	18	**2.99**	.89
	Agency D	9	**3.35**	.42	11	**3.18**	.45	11	**3.35**	.51
Pressures for Change	Agency A	30	**3.65**	.49	24	**3.52**	.50.	21	**3.40**	.59
	Agency B	10	**3.53**	.32	6	**3.36**	.56	6	**3.17**	.41
	Agency C	16	**3.54**	.37	21	**3.52**	.57	17	**3.43**	.40
	Agency D	9	**3.62**	.35	10	**3.77**	.45	11	**3.75**	.41
Staffing Resources	Agency A	31	**2.60**	.69	23	**3.13**	.72	21	**2.97**	.49
	Agency B	10	**2.66**	.87	6	**2.78**	.39	6	**2.39**	.40
	Agency C	16	**2.79**	.48	22	**2.88**	.63	18	**3.06**	.47
	Agency D	9	**3.60**	.60	10	**3.73**	.34	11	**3.83**	.25
Training Resources	Agency A	31	**3.57**	.83	24	**3.24**	.77	21	**3.38**	.74
	Agency B	10	**2.90**	.94	6	**3.25**	.57	6	**2.50**	.63
	Agency C	16	**2.67**	.60	22	**2.45**	.74	17	**2.51**	.58
	Agency D	9	**3.75**	1.02	11	**3.89**	.88	11	**3.68**	.90
Staff Efficacy	Agency A	31	**3.98**	.51	24	**4.14**	.57	21	**4.05**	.38
	Agency B	10	**3.94**	.40	6	**4.07**	.41	6	**4.07**	.24
	Agency C	16	**4.04**	.45	22	**4.14**	.44	18	**4.01**	.33
	Agency D	9	**3.93**	.40	11	**4.27**	.40	11	**4.27**	.33

Notes. ANOVAs and paired *t*-tests were not conducted by agency because there were insufficient sample sizes (small numbers of case managers) in some agencies. Means are reported for all consumers/case managers with data at the noted time-point.

Table 6C. Means for **Organizational Readiness to Change (Case Manager)** by time and Agency

		Time 1			Time 2			Time 3		
		N	***M***	*SD*	*N*	***M***	*SD*	*N*	***M***	*SD*
Staff Adaptability	Agency A	31	**3.62**	.56	23	**3.85**	.57	21	**3.77**	.46
	Agency B	10	**3.50**	.53	6	**3.54**	.60	6	**3.79**	.40
	Agency C	16	**3.36**	.58	22	**3.87**	.52	18	**3.82**	.34
	Agency D	9	**3.89**	.40	10	**3.90**	.53	11	**3.84**	.32
Organizational Mission	Agency A	31	**3.38**	.58	24	**3.51**	.63	21	**3.50**	.60
	Agency B	10	**3.38**	.53	6	**3.67**	.39	6	**3.20**	.66
	Agency C	16	**3.14**	.46	22	**3.28**	.50	18	**3.23**	.67
	Agency D	9	**3.73**	.55	11	**3.69**	.43	11	**4.04**	.39
Organizational Autonomy	Agency A	31	**3.28**	.53	24	**3.51**	.56	21	**3.46**	.55
	Agency B	10	**2.81**	.50	6	**3.27**	.62	6	**3.23**	.35
	Agency C	16	**3.13**	.46	22	**3.25**	.48	18	**3.33**	.44
	Agency D	9	**3.78**	.48	11	**3.87**	.46	11	**3.82**	.44
Organizational Change	Agency A	31	**3.42**	.53	23	**3.62**	.55	21	**3.51**	.67
	Agency B	10	**3.07**	.44	6	**3.40**	.28	6	**2.90**	.65
	Agency C	16	**3.11**	.29	22	**3.17**	.66	18	**3.15**	.56
	Agency D	9	**3.24**	.77	10	**3.46**	.45	11	**3.56**	.45
Training Utilization	Agency A	30	**3.41**	.69	22	**3.50**	.77	20	**3.17**	.68
	Agency B	10	**2.93**	.56	6	**3.06**	.44	6	**3.11**	.72
	Agency C	16	**2.92**	.65	22	**3.09**	.66	18	**2.81**	.66
	Agency D	9	**3.59**	.86	10	**3.52**	.74	11	**3.23**	.72
Job Satisfaction	Agency A	31	**3.83**	.44	24	**3.97**	.51	21	**3.89**	.64
	Agency B	10	**3.78**	.55	6	**2.83**	0.73	6	**3.86**	1.16
	Agency C	16	**3.54**	.36	22	**3.64**	.58	18	**3.71**	.49
	Agency D	9	**4.19**	.72	11	**4.23**	.77	11	**4.29**	.39

Notes. ANOVAs and paired *t*-tests were not conducted by agency because there were insufficient sample sizes (small numbers of case managers) in some agencies. Means are reported for all consumers/case managers with data at the noted time-point.

Table 6D. Results of *t*-tests (comparing intervention groups at baseline) and paired *t*-tests (comparing over time within intervention group) for **Organizational Readiness to Change (Case Manager)**

		Time 1			Time 2			Time 3			Baseline	Time 1 with Time 2		Time 2 With Time 3	
		N	***M***	*SD*	*N*	***M***	*SD*	*N*	***M***	*SD*	*t*	*N*	*t*	*N*	*t*
Program Needs	Initial Intervention	40	**3.39**	.53	30	**3.05**	.58	27	**3.04**	.58	0.33	21	**1.96**$^{+}$	18	-0.81
	Wait-list Control	25	**3.35**	.52	33	**3.27**	.76	28	**3.16**	.67		20	1.13	23	0.49
Training Needs	Initial Intervention	41	**3.08**	.62	30	**2.90**	.60	27	**2.89**	.54	0.33	21	1.10	18	0.30
	Wait-list Control	25	**3.03**	.60	33	**2.97**	.72	29	**3.13**	.78		20	0.88	24	-0.82
Pressures for Change	Initial Intervention	40	**3.62**	.45	30	**3.49**	.51	27	**3.35**	.55	0.49	22	1.15	18	0.88
	Wait-list Control	25	**3.57**	.36	31	**3.60**	.54	28	**3.55**	.43		20	0.46	22	-0.38
Staffing Resources	Initial Intervention	41	**2.62**	.73	29	**3.06**	.67	27	**2.84**	.53	**-2.63***	22	**-2.98****	17	1.32
	Wait-list Control	25	**3.08**	.65	32	**3.15**	.68	29	**3.35**	.55		20	0.82	23	**-2.30***
Training Resources	Initial Intervention	41	**3.41**	.90	30	**3.24**	.73	27	**3.19**	.80	1.52	22	1.13	18	0.98
	Wait-list Control	25	**3.06**	.93	33	**2.93**	1.04	28	**2.97**	.92		20	**2.47***	23	-0.37
Staff Efficacy	Initial Intervention	41	**3.97**	.48	30	**4.12**	.54	27	**4.05**	.35	-0.24	22	-1.22	18	0.35
	Wait-list Control	25	**4.00**	.42	33	**4.18**	.43	29	**4.11**	.35		20	**-1.74**$^{+}$	24	0.92

Notes. Differences are significant at $^{+}p < .10$ * $p < .05$, ** $p < .01$, and *** $p < .001$. ANOVAs and paired *t*-tests were conducted by intervention group (Initial Intervention [Agency A and Agency B] and Wait-list Control [Agency C and Agency D]) because there were insufficient sample sizes (small numbers of case managers) in some agencies. Means are reported for all consumers/case managers with data at the noted time-point. Sample size (*N*) for paired *t*-tests change because the statistics are computed only if the individual has data at both time points used in the comparison.

Table 6E. Results of *t*-tests (comparing intervention groups at baseline) and paired *t*-tests (comparing over time within intervention group) for **Organizational Readiness to Change (Case Manager)**

		Time 1			Time 2			Time 3			Baseline	Time 1 with Time 2		Time 2 With Time 3	
		N	***M***	*SD*	*N*	***M***	*SD*	*N*	***M***	*SD*	*t*	*N*	*t*	*N*	*t*
Staff Adaptability	Initial Intervention	41	**3.59**	.55	29	**3.79**	.58	27	**3.78**	.44	0.29	22	-0.14	17	-0.07
	Wait-list Control	25	**3.55**	.57	32	**3.88**	.52	29	**3.83**	.33		20	**-2.37***	23	1.12
Organizational Mission	Initial Intervention	41	**3.38**	.56	30	**3.54**	.58	27	**3.44**	.61	0.16	22	0.25	18	0.12
	Wait-list Control	25	**3.35**	.56	33	**3.41**	.51	29	**3.54**	.70		20	**1.98**$^{+}$	24	-0.60
Organizational Autonomy	Initial Intervention	41	**3.16**	.56	30	**3.46**	.57	27	**3.42**	.51	-1.46	22	-0.68	18	0.28
	Wait-list Control	25	**3.37**	.55	33	**3.46**	.55	29	**3.52**	.49		20	-0.66	24	-0.31
Organizational Change	Initial Intervention	41	**3.36**	.53	29	**3.57**	.51	27	**3.38**	.51	1.33	22	-1.03	17	1.39
	Wait-list Control	25	**3.16**	.50	32	**3.23**	.61	29	**3.31**	.55		20	1.15	23	-0.83
Training Utilization	Initial Intervention	40	**3.29**	.68	28	**3.40**	.73	26	**3.15**	.67	0.71	20	-0.64	16	0.48
	Wait-list Control	25	**3.16**	.79	32	**3.22**	.70	29	**2.97**	.70		20	**2.22***	23	1.21
Job Satisfaction	Initial Intervention	41	**3.82**	.46	30	**3.98**	.55	27	**3.88**	.76	0.32	22	-0.12	18	0.99
	Wait-list Control	25	**3.77**	.59	33	**3.84**	.70	29	**3.93**	.53		20	1.03	24	0.24

Notes. Differences are significant at $^{+}p < .10$ * $p < .05$, ** $p < .01$, and *** $p < .001$. ANOVAs and paired *t*-tests were conducted by intervention group (Initial Intervention [Agency A and Agency B] and Wait-list Control [Agency C and Agency D]) because there were insufficient sample sizes (small numbers of case managers) in some agencies. Means are reported for all consumers/case managers with data at the noted time-point. Sample size (*N*) for paired *t*-tests change because the statistics are computed only if the individual has data at both time points used in the comparison.

Table 7A. Results of *t*-tests Comparing **Agency Recovery Orientation Scales by Gender** at Baseline

		Males		**Females**		
		M	*SD*	***M***	*SD*	*t*
Agency Recovery Orientation (Consumer)	Total score	**3.62**	0.54	**3.72**	0.63	-1.27
	Life Goals	**3.70**	0.57	**3.84**	0.66	-1.69
	Involvement	**3.23**	0.79	**3.18**	0.87	0.40
	Diversity of Treatment Options	**3.37**	0.72	**3.41**	0.86	-0.37
	Choice	**3.82**	0.63	**3.97**	0.75	-1.56
	Individually-Tailored Services	**3.76**	0.66	**3.90**	0.80	-1.40
Agency Recovery Orientation (Case Manager)	Total Score	**3.53**	0.42	**3.57**	0.43	-0.38
	Life Goals	**3.66**	0.40	**3.78**	0.46	-1.00
	Involvement	**3.09**	0.75	**2.95**	0.65	0.75
	Diversity of Treatment Options	**3.44**	0.51	**3.51**	0.52	-0.47
	Choice	**3.78**	0.56	**3.90**	0.51	-0.81
	Individually-Tailored Services	**3.31**	0.82	**3.34**	0.60	-0.15

Notes. Differences are significant at * $p < .05$, ** $p < .01$, and *** $p < .001$.

Table 7B. Results of Correlations Comparing **Agency Recovery Orientation Change Scores** and Dose within Agency

		Initial intervention group: Compare Time 1 and 2 Change Scores with Dose at Time 2		Wait-list control group: Compare Time 2 and 3 Change Scores with Dose at Time 3	
		Agency A *r*	Agency B *r*	Agency C *r*	Agency D *r*
Agency Recovery Orientation (Consumer)	Total score	.01	-.01	.08	-.04
	Life Goals	-.00	.03	.06	.02
	Involvement	.00	-.02	.00	.03
	Diversity of Treatment Options	-.06	-.05	.16	-.22
	Choice	.12	.12	.11	.03
	Individually-Tailored Services	-.01	-.02	.22	-.08

Notes. Differences are significant at * $p < .05$, ** $p < .01$, and *** $p < .001$.

Table 7C. Results of ANOVAs (comparing agencies at baseline) and paired *t*-tests (comparing over time within agency) for **Agency Recovery Orientation (Consumer)**

		Time 1			Time 2			Time 3			Baseline	Time 1 with Time 2		Time 2 With Time 3	
		N	***M***	*SD*	*N*	***M***	*SD*	*N*	***M***	*SD*	*F*	*N*	*t*	*N*	*t*
RSA Total Score	Agency A	70	**3.49**	.66	61	**3.62**	.67	49	**3.73**	.76	**4.18**** Agency A vs. Agency D	61	-1.55	47	0.22
	Agency B	60	**3.69**	.57	46	**3.68**	.62	38	**3.75**	.53		46	0.25	37	-0.03
	Agency C	67	**3.72**	.60	67	**3.66**	.68	51	**3.66**	.72		58	0.67	46	-0.10
	Agency D	58	**3.85**	.56	45	**3.84**	.46	40	**3.79**	.48		44	**-1.76**$^{+}$	38	0.75
Life Goals	Agency A	70	**3.66**	.64	61	**3.74**	.63	49	**3.80**	.51	1.73	61	-0.68	47	-0.08
	Agency B	60	**3.79**	.63	46	**3.81**	.66	38	**3.84**	.59		46	-0.14	37	0.56
	Agency C	66	**3.81**	.66	67	**3.74**	.72	50	**3.72**	.66		58	0.51	45	0.08
	Agency D	58	**3.91**	.58	45	**3.91**	.48	39	**3.88**	.49		44	-1.50	37	0.87
Involvement	Agency A	69	**3.08**	.91	61	**3.29**	.84	49	**3.38**	.77	2.10	61	-1.22	47	-0.06
	Agency B	59	**3.06**	.84	44	**3.10**	.83	38	**3.09**	.82		44	-0.13	35	-0.10
	Agency C	65	**3.28**	.85	67	**3.36**	.84	49	**3.41**	.96		56	-0.41	44	-0.55
	Agency D	56	**3.39**	.75	46	**3.40**	.77	39	**3.31**	.77		45	-1.54	38	1.18

Notes. Differences are significant at $^{+}p < .10$ * $p < .05$, ** $p < .01$, and *** $p < .001$. Means are reported for all consumers/case managers with data at the noted time-point. Sample size (*N*) for paired *t*-tests change because the statistics are computed only if the individual has data at both time points used in the comparison.

Table 7D. Results of ANOVAs (comparing agencies at baseline) and paired *t*-tests (comparing over time within agency) for **Agency Recovery Orientation (Consumer)**

		Time 1			Time 2			Time 3			Baseline	Time 1 with Time 2		Time 2 With Time 3	
		N	***M***	*SD*	*N*	***M***	*SD*	*N*	***M***	*SD*	*F*	*N*	*t*	*N*	*t*
Diversity of Treatment Options	Agency A	70	**3.16**	.89	61	**3.34**	.89	49	**3.48**	.74	**3.43*** Agency A vs. Agency D	61	-1.13	47	-0.95
	Agency B	60	**3.43**	.81	44	**3.40**	.78	38	**3.35**	.84		44	0.39	35	0.76
	Agency C	66	**3.43**	.74	66	**3.45**	.81	50	**3.35**	.96		56	0.30	44	0.17
	Agency D	58	**3.60**	.76	43	**3.55**	.66	38	**3.46**	.73		42	-0.33	34	1.06
Choice	Agency A	69	**3.71**	.80	61	**3.83**	.70	49	**3.78**	.61	**3.25*** Agency A vs. Agency D	61	-1.33	47	1.31
	Agency B	59	**4.03**	.63	46	**3.91**	.70	38	**4.16**	.51		45	1.51	37	**-2.25***
	Agency C	66	**3.86**	.76	66	**3.76**	.75	51	**3.91**	.70		58	1.38	46	-0.90
	Agency D	57	**4.06**	.63	44	**4.05**	.61	40	**4.06**	.54		43	-1.21	37	-0.26
Individually-Tailored Services	Agency A	67	**3.61**	.84	60	**3.77**	.79	49	**3.73**	.76	**4.09**** Agency A vs. Agency D	59	-1.34	47	0.29
	Agency B	58	**3.87**	.64	43	**3.82**	.82	38	**3.95**	.71		41	0.00	35	-0.21
	Agency C	63	**3.85**	.78	66	**3.77**	.83	48	**3.73**	.83		54	0.89	44	0.52
	Agency D	56	**4.08**	.67	44	**3.94**	.61	38	**4.03**	.54		41	**1.73**$^{+}$	35	-1.39

Notes. Differences are significant at $^{+}p < .10$ * $p < .05$, ** $p < .01$, and *** $p < .001$. Means are reported for all consumers/case managers with data at the noted time-point. Sample size (*N*) for paired *t*-tests change because the statistics are computed only if the individual has data at both time points used in the comparison.

Table 7E. Means for **Agency Recovery Orientation (Case Manager)** by time and by Agency

		Time 1			Time 2			Time 3		
		N	***M***	*SD*	*N*	***M***	*SD*	*N*	***M***	*SD*
RSA Total Score	Agency A	31	**3.58**	.40	22	**3.70**	.45	21	**3.64**	.38
	Agency B	10	**3.58**	.35	6	**3.59**	.35	6	**3.37**	.57
	Agency C	16	**3.42**	.33	22	**3.61**	.44	18	**3.60**	.30
	Agency D	9	**3.72**	.66	11	**3.90**	.41	11	**3.79**	.32
Life Goals	Agency A	31	**3.78**	.46	22	**3.91**	.44	21	**3.89**	.34
	Agency B	10	**3.84**	.39	6	**3.70**	.37	6	**3.55**	.54
	Agency C	16	**3.56**	.37	22	**3.71**	.43	17	**3.66**	.35
	Agency D	9	**3.87**	.54	11	**4.07**	.43	11	**4.03**	.39
Involvement	Agency A	30	**3.09**	.71	23	**3.37**	.66	21	**3.24**	.65
	Agency B	10	**2.96**	.49	6	**3.07**	.56	6	**2.80**	.55
	Agency C	15	**2.92**	.59	20	**3.18**	.59	17	**3.06**	.68
	Agency D	7	**2.77**	.96	11	**3.25**	.54	11	**2.98**	.70
Diversity of Treatment Options	Agency A	29	**3.54**	.46	22	**3.42**	.70	21	**3.41**	.60
	Agency B	9	**3.48**	.32	6	**3.43**	.37	6	**3.20**	.66
	Agency C	16	**3.28**	.57	21	**3.49**	.49	17	**3.52**	.39
	Agency D	9	**3.73**	.65	11	**3.82**	.39	11	**3.58**	.46
Choice	Agency A	28	**3.84**	.54	22	**3.88**	.41	21	**3.79**	.47
	Agency B	10	**3.90**	.55	6	**3.87**	.30	6	**3.60**	.61
	Agency C	16	**3.86**	.43	22	**3.89**	.48	18	**3.97**	.25
	Agency D	9	**3.91**	.67	11	**4.06**	.45	11	**4.16**	.40
Individually-Tailored Services	Agency A	27	**3.40**	.71	22	**3.60**	.49	21	**3.51**	.59
	Agency B	7	**3.29**	.51	6	**3.67**	.26	6	**3.50**	.59
	Agency C	15	**3.15**	.52	19	**3.42**	.58	17	**3.44**	.43
	Agency D	8	**3.50**	.87	10	**3.98**	.61	11	**3.70**	.56

Notes. ANOVAs and paired *t*-tests were not conducted by agency because there were insufficient sample sizes (small numbers of case managers) in some agencies. Means are reported for all consumers/case managers with data at the noted time-point.

Table 7F. Results of *t*-tests (comparing intervention groups at baseline) and paired *t*-tests (comparing over time within intervention group) for **Agency Recovery Orientation (Case Manager)**

		Time 1			Time 2			Time 3			Baseline	Time 1 with Time 2		Time 2 With Time 3	
		N	***M***	*SD*	*N*	***M***	*SD*	*N*	***M***	*SD*	*t*	*N*	*t*	*N*	*t*
RSA Total Score	Initial Intervention	41	**3.58**	.39	28	**3.68**	.43	27	**3.58**	.43	0.47	20	-1.31	16	0.55
	Wait-list Control	25	**3.53**	.48	33	**3.71**	.45	29	**3.68**	3.15		20	0.64	24	0.29
Life Goals	Initial Intervention	41	**3.80**	.44	28	**3.87**	.43	27	**3.81**	.41	1.08	20	-1.23	16	-0.07
	Wait-list Control	25	**3.67**	.45	33	**3.83**	.46	28	**3.81**	.41		20	-0.15	23	0.08
Involvement	Initial Intervention	40	**3.05**	.66	29	**4.60**	3.31	27	**3.14**	.65	1.00	20	-1.50	17	-0.06
	Wait-list Control	22	**2.88**	.71	31	**3.21**	.56	28	**3.03**	.68		18	0.20	23	1.16
Diversity of Treatment Options	Initial Intervention	38	**3.52**	.43	28	**3.42**	.63	27	**3.36**	.61	0.62	18	0.65	16	1.03
	Wait-list Control	25	**3.44**	.63	32	**3.60**	.48	28	**3.54**	.41		20	0.69	23	-0.07
Choice	Initial Intervention	38	**3.85**	.54	28	**3.88**	.38	27	**3.75**	.50	-0.19	19	-1.06	16	0.64
	Wait-list Control	25	**3.88**	.52	33	**3.94**	.47	29	**4.04**	.32		20	1.64	24	-1.96
Individually-Tailored Services	Initial Intervention	34	**3.38**	.67	28	**3.62**	.44	27	**3.51**	.58	0.57	16	-0.74	16	0.56
	Wait-list Control	23	**3.27**	.67	29	**3.61**	.64	28	**3.54**	.49		18	-1.05	22	1.56

Notes. Differences are significant at $^{+}p < .10$ * $p < .05$, ** $p < .01$, and *** $p < .001$. ANOVAs and paired *t*-tests were conducted by intervention group (Initial Intervention [Agency A and Agency B] and Wait-list Control [Agency C and Agency D]) because there were insufficient sample sizes (small numbers of case managers) in some agencies. Means are reported for all consumers/case managers with data at the noted time-point. Sample size (*N*) for paired *t*-tests change because the statistics are computed only if the individual has data at both time points used in the comparison.

Table 8A. Results of ANOVAs (comparing agencies at baseline) and paired *t*-tests (comparing over time within agency) for **Treatment Planning with Case Manager (Consumer)**

		Time 1			Time 2			Time 3			Baseline	Time 1 with Time 2		Time 2 With Time 3	
		N	***M***	*SD*	*N*	***M***	*SD*	*N*	***M***	*SD*	*F*	*N*	*t*	*N*	*t*
Frequency of discussing Treatment Plan with Case Manager	Agency A	70	**2.26**	1.05	59	**2.34**	.94	49	**2.24**	1.01	1.41	59	-0.12	46	-0.17
	Agency B	61	**2.51**	1.04	46	**2.37**	1.10	37	**2.49**	1.17		46	0.43	36	0.53
	Agency C	73	**2.51**	.90	69	**2.35**	1.08	55	**2.18**	1.16		65	1.32	48	1.18
	Agency D	57	**2.60**	1.02	46	**2.48**	1.21	38	**2.61**	.97		44	-0.74	37	-0.28
Recent Change in Treatment Plan Process	Agency A	68	**1.71**	.73	59	**1.73**	.76	48	**1.60**	.77	1.47	57	0.12	46	0.92
	Agency B	57	**1.53**	.66	45	**1.47**	.66	37	**1.51**	.69		43	0.37	35	-0.53
	Agency C	70	**1.80**	.86	65	**1.72**	.80	48	**1.63**	.82		58	0.29	40	1.46
	Agency D	57	**1.75**	.79	43	**1.63**	.73	36	**1.78**	.76		42	0.84	34	-1.09

Notes. Differences are significant at $^{+}$ p < .10 * *p* < .05, ** *p* < .01, and *** *p* < .001. Means are reported for all consumers/case managers with data at the noted time-point. Sample size (*N*) for paired *t*-tests change because the statistics are computed only if the individual has data at both time points used in the comparison.

Table 8B. Results of *t*-tests Comparing **Satisfaction with Treatment Planning Scales by Gender** at Baseline

		Males		**Females**		
		M	*SD*	***M***	*SD*	*t*
Satisfaction with Treatment Planning (Consumer)	Positive Therapeutic Relationship	**4.10**	0.68	**4.24**	0.79	-1.43
	Normalization	**4.05**	0.67	**4.30**	0.73	**-2.72***
	Frequency	**3.39**	0.99	**3.52**	1.03	-0.96
	Control	**3.44**	0.94	**3.55**	1.12	-0.83
Satisfaction with Treatment Planning (Case Manager)	Therapeutic Orientation	**4.68**	0.32	**4.52**	0.42	1.48
	Normalization	**4.36**	0.38	**4.42**	0.41	-0.66
	Control	**3.14**	1.00	**3.31**	0.88	-0.69

Notes. Differences are significant at * $p < .05$, ** $p < .01$, and *** $p < .001$.

Table 8C. Results of Correlations Comparing **Satisfaction with Treatment Planning Change Scores** and Dose within Agency

		Initial intervention group: Compare Time 1 and 2 Change Scores with Dose at Time 2		Wait-list control group: Compare Time 2 and 3 Change Scores with Dose at Time 3	
		Agency A *r*	Agency B *r*	Agency C *r*	Agency D *r*
Satisfaction with Treatment Planning (Consumer)	Positive Therapeutic Relationship	-.14	.06	.01	-.04
	Normalization	-.22	-.21	.00	-.05
	Frequency	-.06	.08	§	§
	Control	.12	-.22	§	§

Notes. Differences are significant at * $p < .05$, ** $p < .01$, and *** $p < .001$. § Correlations could not be computed because either the change score or the dose was constant (the value did not vary).

Table 8D. Results of ANOVAs (comparing agencies at baseline) and paired *t*-tests (comparing over time within agency) for **Satisfaction with Treatment Planning (Consumer)**

		Time 1			Time 2			Time 3			Baseline	Time 1 with Time 2		Time 2 With Time 3	
		N	***M***	*SD*	*N*	***M***	*SD*	*N*	***M***	*SD*	*F*	*N*	*t*	*N*	*t*
Positive Therapeutic Relationship	Agency A	70	**4.03**	.88	60	**4.09**	.72	49	**4.07**	.80	**3.00*** Agency A vs. Agency D	60	0.46	47	0.04
	Agency B	61	**4.21**	.77	46	**4.14**	.84	38	**4.29**	.73		46	0.82	37	-0.60
	Agency C	74	**4.15**	.69	71	**4.05**	.76	56	**4.13**	.80		67	1.08	50	-0.77
	Agency D	59	**4.42**	.59	46	**4.23**	.62	40	**4.38**	.50		46	1.67	39	-1.44
Normalization	Agency A	70	**4.09**	.67	60	**4.16**	.54	49	**4.07**	.68	0.99	60	-0.32	47	1.07
	Agency B	61	**4.22**	.87	46	**4.25**	.71	38	**4.32**	.68		46	0.20	37	0.19
	Agency C	74	**4.25**	.66	71	**4.17**	.68	55	**4.20**	.73		67	0.84	49	0.15
	Agency D	59	**4.30**	.64	45	**4.22**	.65	40	**4.37**	.56		45	0.30	39	-1.08
Frequency of Treatment Planning	Agency A	70	**3.38**	1.01	60	**3.55**	.82	49	**3.42**	1.09	0.63	60	0.61	47	0.55
	Agency B	61	**3.45**	1.01	46	**3.34**	.98	38	**3.63**	1.04		46	1.39	37	-1.14
	Agency C	74	**3.46**	1.03	69	**3.46**	.96	56	**3.23**	1.07		65	0.78	48	**2.23***
	Agency D	59	**3.62**	.98	45	**3.54**	1.00	39	**3.65**	.79		45	0.65	38	-0.45
Control	Agency A	70	**3.47**	1.10	60	**3.32**	1.06	49	**3.27**	1.10	2.24	60	0.88	47	0.00
	Agency B	61	**3.54**	.98	46	**3.72**	1.03	38	**4.16**	.99		46	-0.99	37	**-2.71****
	Agency C	74	**3.74**	.98	71	**3.61**	.97	54	**3.48**	.99		67	1.09	48	0.47
	Agency D	59	**3.27**	1.12	46	**3.18**	1.14	40	**3.33**	1.12		46	0.59	39	-1.06

Notes. Differences are significant at $^{+}$ p < .10 * *p* < .05, ** *p* < .01, and *** *p* < .001. Means are reported for all consumers/case managers with data at the noted time-point. Sample size (*N*) for paired *t*-tests change because the statistics are computed only if the individual has data at both time points used in the comparison.

Table 8E. Means for **Satisfaction with Treatment Planning (Case Manager)** by time and by Agency

		Time 1			Time 2			Time 3		
		N	***M***	*SD*	*N*	***M***	*SD*	*N*	***M***	*SD*
Therapeutic Orientation	Agency A	31	**4.51**	.42	24	**4.68**	.30	21	**4.55**	.36
	Agency B	10	**4.70**	.36	6	**4.50**	.24	6	**4.50**	.33
	Agency C	16	**4.56**	.32	22	**4.67**	.32	18	**4.68**	.36
	Agency D	9	**4.58**	.52	11	**4.62**	.41	11	**4.64**	.42
Normalization	Agency A	31	**4.35**	.44	24	**4.48**	.41	21	**4.34**	.37
	Agency B	10	**4.42**	.38	6	**4.40**	.25	6	**4.09**	.42
	Agency C	16	**4.49**	.33	22	**4.44**	.37	18	**4.31**	.28
	Agency D	9	**4.44**	.47	11	**4.56**	.33	11	**4.49**	.42
Control	Agency A	31	**3.34**	.81	24	**3.25**	.86	21	**3.10**	.85
	Agency B	10	**3.10**	1.02	6	**3.17**	1.13	6	**3.08**	1.16
	Agency C	16	**3.19**	1.06	22	**3.66**	.73	18	**3.69**	.71
	Agency D	9	**3.33**	.94	11	**3.91**	.74	11	**3.82**	.56

Notes. ANOVAs and paired *t*-tests were not conducted by agency because there were insufficient sample sizes (small numbers of case managers) in some agencies. Means are reported for all consumers/case managers with data at the noted time-point.

Table 8F. Results of *t*-tests (comparing intervention groups at baseline) and paired *t*-tests (comparing over time within intervention group) for **Satisfaction with Treatment Planning (Case Manager)**

		Time 1			Time 2			Time 3			Baseline	Time 1 with Time 2		Time 2 With Time 3	
		N	***M***	*SD*	*N*	***M***	*SD*	*N*	***M***	*SD*	*t*	*N*	*t*	*N*	*t*
Therapeutic Orientation	Initial Intervention	41	**4.56**	.41	30	**4.65**	.30	27	**4.54**	.35	-0.17	22	-1.30	18	**2.37***
	Wait-list Control	25	**4.57**	.39	33	**4.65**	.34	29	**4.66**	.38		20	**-2.22***	24	-0.60
Normalization	Initial Intervention	41	**4.37**	.42	30	**4.47**	.38	27	**4.29**	.39	-0.99	22	-1.15	18	1.62
	Wait-list Control	25	**4.47**	.37	33	**4.48**	.36	29	**4.38**	.35		20	0.00	24	0.39
Control	Initial Intervention	41	**3.28**	.86	30	**3.23**	.90	27	**3.09**	.90	0.17	22	0.61	18	0.50
	Wait-list Control	25	**3.24**	1.00	33	**3.74**	.73	29	**3.74**	.65		20	**-2.29***	24	-0.56

Notes. Differences are significant at $^{+}$ p < .10 * *p* < .05, ** *p* < .01, and *** *p* < .001. ANOVAs and paired *t*-tests were conducted by intervention group (Initial Intervention [Agency A and Agency B] and Wait-list Control [Agency C and Agency D]) because there were insufficient sample sizes (small numbers of case managers) in some agencies. Means are reported for all consumers/case managers with data at the noted time-point. Sample size (*N*) for paired *t*-tests change because the statistics are computed only if the individual has data at both time points used in the comparison.

Table 9A. Results of *t*-tests Comparing **Knowledge of Consumer Outcomes by Gender** at Baseline

		Males		**Females**		
		M	*SD*	***M***	*SD*	*t*
Knowledge of Consumer Outcomes (Consumer)	Knowledge of Consumer Outcomes – True items	**3.98**	0.66	**3.96**	0.82	0.94
	Knowledge of Consumer Outcomes – False items	**3.69**	0.61	**3.72**	0.76	0.87
Knowledge of Consumer Outcomes (Case Manager)		**3.51**	0.54	**3.48**	0.77	1.81

Notes. Differences are significant at * $p < .05$, ** $p < .01$, and *** $p < .001$.

Table 9B. Means for **Knowledge of Consumer Outcomes** by time and by Agency

		Time 1			Time 2			Time 3		
		N	***M***	*SD*	*N*	***M***	*SD*	*N*	***M***	*SD*
Knowledge of Consumer Outcomes – True items (Consumer)	Agency A	7	**4.07**	.69	8	**4.21**	.55	7	**4.07**	.46
	Agency B	13	**3.74**	.95	21	**4.17**	.61	16	**4.17**	.67
	Agency C	25	**3.88**	.66	17	**3.99**	.58	28	**4.22**	.49
	Agency D	24	**4.14**	.80	16	**4.05**	.34	28	**4.18**	.39
Knowledge of Consumer Outcomes – False items (Consumer)	Agency A	7	**3.81**	.69	8	**3.38**	.61	7	**3.10**	.66
	Agency B	13	**3.85**	.74	21	**3.59**	.93	16	**3.94**	.59
	Agency C	26	**3.72**	.64	17	**3.65**	.71	29	**3.64**	.71
	Agency D	24	**3.67**	.85	16	**3.25**	.45	28	**3.45**	.51
Knowledge of Consumer Outcomes (Case Manager)	Agency A	31	**3.51**	.69	24	**3.56**	.62	21	**3.50**	.75
	Agency B	10	**3.67**	.42	6	**3.78**	.49	6	**3.31**	.96
	Agency C	16	**3.45**	.68	22	**3.65**	.63	18	**3.52**	.62
	Agency D	9	**3.53**	1.06	11	**3.58**	.67	11	**3.53**	.55

Notes. ANOVAs and paired *t*-tests were not conducted by agency because there were insufficient sample sizes (small numbers of case managers) in some agencies. Means are reported for all consumers/case managers with data at the noted time-point.

Table 9C. Results of ANOVAs (comparing agencies at baseline) and paired *t*-tests (comparing over time within intervention group) for **Knowledge of Consumer Outcomes**

		Time 1			Time 2			Time 3			Baseline	Time 1 with Time 2		Time 2 With Time 3	
		N	***M***	*SD*	*N*	***M***	*SD*	*N*	***M***	*SD*	*t*	*N*	*t*	*N*	*t*
Knowledge of Consumer Outcomes – True items (Consumer)	Initial Intervention	20	**3.86**	.87	29	**4.18**	.59	23	**4.14**	.61	-0.73	Insufficient Sample		Insufficient Sample	
	Wait-list Control	49	**4.01**	.73	33	**4.02**	.47	56	**4.20**	.44		17	-0.55	21	-1.02
Knowledge of Consumer Outcomes – False items (Consumer)	Initial Intervention	20	**3.83**	.71	29	**3.53**	.85	23	**3.68**	.72	0.73	Insufficient Sample		Insufficient Sample	
	Wait-list Control	50	**3.69**	.74	33	**3.45**	.62	57	**3.55**	.62		18	0.29	22	**-2.06**$^{+}$
Knowledge of Consumer Outcomes (Case Manager)	Initial Intervention	41	**3.55**	.64	30	**3.60**	.60	27	**3.46**	.79	0.93	22	0.42	18	-0.95
	Wait-list Control	25	**3.38**	.82	33	**3.62**	.64	29	**3.52**	.58		20	-1.05	24	0.24

Notes. Differences are significant at $^{+}p < .10$ * $p < .05$, ** $p < .01$, and *** $p < .001$. ANOVAs and paired *t*-tests were conducted by intervention group (Initial Intervention [Agency A and Agency B] and Wait-list Control [Agency C and Agency D]) because there were insufficient sample sizes (small numbers of case managers) in some agencies. Means are reported for all consumers/case managers with data at the noted time-point. Sample size (*N*) for paired *t*-tests change because the statistics are computed only if the individual has data at both time points used in the comparison.

Table 10A. Results of *t*-tests Comparing **Using Data in Treatment Planning** by Gender at Baseline

		Males		**Females**		
		M	*SD*	***M***	*SD*	*t*
Using Data in Treatment Planning (Consumer)		**2.84**	1.04	**3.57**	1.01	**-2.31***
Using Data in Treatment Planning (Case Manager)	Outcomes Communication	**2.90**	0.70	**2.93**	0.76	-0.17
	Using Data in Treatment Planning	**3.06**	0.89	**3.47**	0.85	-1.66
	Strengths/Red Flags	**3.00**	0.77	**3.11**	0.93	-0.26

Notes. Differences are significant at * $p < .05$, ** $p < .01$, and *** $p < .001$.

Table 10B. Means for **Using Data in Treatment Planning** by time and by Agency

		Time 1			Time 2			Time 3		
		N	***M***	*SD*	*N*	***M***	*SD*	*N*	***M***	*SD*
Using Data in Treatment Planning (Consumer)	Agency A	7	**2.68**	1.27	8	**3.30**	1.03	6	**4.02**	.86
	Agency B	13	**3.38**	.98	21	**3.10**	.97	14	**3.48**	.95
	Agency C	24	**3.29**	1.01	17	**3.44**	.68	28	**3.73**	.85
	Agency D	20	**3.73**	1.03	12	**3.82**	.55	24	**3.62**	.74
Using Data in Treatment Planning: Outcomes Communication (Case Manager)	Agency A	31	**2.70**	.69	24	**3.18**	.65	21	**3.02**	.63
	Agency B	10	**3.12**	.41	6	**3.42**	.64	6	**3.00**	.67
	Agency C	16	**3.21**	.84	22	**3.45**	.64	18	**3.44**	.59
	Agency D	9	**2.97**	.89	11	**3.43**	.48	11	**3.44**	.57
Using Data in Treatment Planning (Case Manager)	Agency A	30	**2.93**	.86	23	**3.55**	.69	19	**3.11**	.72
	Agency B	9	**3.53**	.61	6	**4.00**	.72	6	**3.13**	.75
	Agency C	16	**3.80**	.54	22	**3.90**	.62	18	**3.90**	.80
	Agency D	9	**3.94**	.93	11	**4.02**	.67	11	**4.11**	.55
Using Data in Treatment Planning: Strengths/Red Flags (Case Manager)	Agency A	3	**3.17**	.76	5	**2.90**	.65	1	**2.50**	.
	Agency B	0			1	**1.00**		1	**4.00**	
	Agency C	14	**3.43**	.92	19	**3.53**	.99	18	**3.97**	.63
	Agency D	7	**2.36**	.24	7	**2.14**	.94	9	**2.22**	.91

Notes. ANOVAs and paired *t*-tests were not conducted by agency because there were insufficient sample sizes (small numbers of case managers) in some agencies. Means are reported for all consumers/case managers with data at the noted time-point.

Table 10C. Results of ANOVAs (comparing agencies at baseline) and paired *t*-tests (comparing over time within intervention group) for **Using Data in Treatment Planning**

		Time 1			Time 2			Time 3			Baseline	Time 1 with Time 2		Time 2 With Time 3	
		N	***M***	*SD*	*N*	***M***	*SD*	*N*	***M***	*SD*	*F/t*	*N*	*t*	*N*	*t*
Using Data in Treatment Planning (Consumer)	Initial Intervention	20	**3.14**	1.11	29	**3.15**	.97	20	**3.64**	.93	0.22	Insufficient Sample		Insufficient Sample	
	Wait-list Control	44	**3.49**	1.03	29	**3.61**	.65	52	**3.68**	.80		15	-0.18	19	**-1.78**$^{+}$
Outcomes Communication (Case Manager)	Initial Intervention	41	**2.80**	.65	30	**3.23**	.65	27	**3.01**	.62	**-1.72**$^{+}$	22	**-3.37****	18	0.66
	Wait-list Control	25	**3.12**	.85	33	**3.44**	.59	29	**3.44**	.57		20	-1.50	24	-0.05
Using Data in Treatment Planning (Case Manager)	Initial Intervention	39	**3.06**	.84	29	**3.65**	.71	25	**3.11**	.71	**-3.90*****	21	**-2.62***	15	**2.78***
	Wait-list Control	25	**3.85**	.69	33	**3.94**	.63	29	**3.98**	.71		20	-0.64	24	-0.95
Strengths/Red Flags (Case Manager)	Initial Intervention	3	**3.17**	.76	6	**2.58**	.97	2	**3.25**	1.06	0.17	Insufficient Sample		Insufficient Sample	
	Wait-list Control	21	**3.07**	.91	26	**3.15**	1.15	27	**3.39**	1.10		14	0.00	18	-0.40

Notes. Differences are significant at $^{+}p < .10$ * $p < .05$, ** $p < .01$, and *** $p < .001$. ANOVAs and paired *t*-tests were conducted by intervention group (Initial Intervention [Agency A and Agency B] and Wait-list Control [Agency C and Agency D]) because there were insufficient sample sizes (small numbers of case managers) in some agencies. Means are reported for all consumers/case managers with data at the noted time-point. Sample size (*N*) for paired *t*-tests change because the statistics are computed only if the individual has data at both time points used in the comparison.

Table 11. Mean Scores for **Climbing Into the Drivers' Seat Workshop Evaluation** by Agency (Consumer)

			N	***M***	*SD*
CDS Evaluation – Satisfaction	Agency A	Time 2	45	**4.13**	.81
	Agency B	Time 2	31	**4.33**	.69
	Agency C	Time 3	26	**4.33**	.65
	Agency D	Time 3	21	**4.30**	.60
CDS Evaluation – Application	Agency A	Time 2	45	**3.76**	.79
	Agency B	Time 2	31	**3.77**	1.08
	Agency C	Time 3	26	**4.00**	.90
	Agency D	Time 3	21	**3.88**	.50

Table 12A. Results of ANOVAs (comparing agencies at baseline) for **Indicators of Consumer Recovery (Outcomes)** by Agency

		N	***M***	*SD*	*F*
Quality of Life Subscale (Consumer)	Agency A	61	**3.15**	.85	1.33
	Agency B	50	**3.39**	.79	
	Agency C	71	**3.31**	.75	
	Agency D	55	**3.42**	.77	
Financial Subscale (Consumer)	Agency A	61	**2.10**	1.16	0.85
	Agency B	51	**2.43**	1.16	
	Agency C	69	**2.30**	1.09	
	Agency D	56	**2.23**	1.13	
Symptom Distress (Consumer)	Agency A	60	**43.83**	13.43	**3.82*** Agency A vs. Agency B
	Agency B	51	**35.14**	14.82	
	Agency C	71	**38.13**	12.69	
	Agency D	54	**39.04**	14.92	
Activities of Daily Living (Provider)	Agency A	66	**4.69**	.59	**6.25*** ** Agency A, Agency B, & Agency D vs. Agency C
	Agency B	58	**4.56**	.55	
	Agency C	73	**4.28**	.62	
	Agency D	57	**4.62**	.58	
Meaningful Activities (Provider)	Agency A	63	**2.50**	.59	**9.00*** ** Agency B vs. Agency A, Agency C, & Agency D
	Agency B	58	**3.31**	.55	
	Agency C	73	**2.59**	.62	
	Agency D	52	**2.48**	.58	
Community Functioning (Provider)	Agency A	62	**31.46**	5.96	**4.66** ** Agency B vs. Agency A, Agency C, & Agency D
	Agency B	58	**34.60**	4.28	
	Agency C	71	**32.12**	4.52	
	Agency D	55	**31.63**	5.79	

Notes. Differences are significant at $^{+}p < .10$ * $p < .05$, ** $p < .01$, and *** $p < .001$. Means are reported for all consumers/case managers with data at the noted time-point. Sample size (*N*) for paired t-tests change because the statistics are computed only if the individual has data at both time points used in the comparison.

Table 12B. Results of ANOVAs (comparing agencies at baseline) for **Consumer Empowerment Outcomes Subscales** by Agency

		N	***M***	*SD*	*F*
Self-Esteem/ Self-Efficacy Subscale (Consumer)	Agency A	56	**2.54**	.57	**6.39*** ** Agency A vs. Agency B & Agency C
	Agency B	44	**2.95**	.53	
	Agency C	70	**2.94**	.61	
	Agency D	53	**2.78**	.49	
Power/ Powerlessness Subscale (Consumer)	Agency A	55	**2.31**	.44	**5.34*** ** Agency A vs. Agency B & Agency C
	Agency B	45	**2.64**	.46	
	Agency C	70	**2.56**	.44	
	Agency D	52	**2.46**	.45	
Community Activism and Autonomy Subscale (Consumer)	Agency A	55	**2.73**	.78	**9.36*** ** Agency A vs. Agency B, Agency C, & Agency D
	Agency B	43	**3.19**	.38	
	Agency C	69	**3.20**	.42	
	Agency D	51	**3.01**	.46	
Optimism and Control Over the Future Subscale (Consumer)	Agency A	52	**2.58**	.52	**4.11** ** Agency A vs. Agency B & Agency C
	Agency B	43	**2.90**	.43	
	Agency C	69	**2.83**	.48	
	Agency D	51	**2.74**	.49	
Righteous Anger Subscale (Consumer)	Agency A	55	**2.35**	.53	1.15
	Agency B	44	**2.46**	.54	
	Agency C	69	**2.51**	.54	
	Agency D	47	**2.48**	.39	

Notes. Differences are significant at $^{+}$ $p < .10$ * $p < .05$, ** $p < .01$, and *** $p < .001$. Means are reported for all consumers/case managers with data at the noted time-point. Sample size (*N*) for paired t-tests change because the statistics are computed only if the individual has data at both time points used in the comparison.

APPENDIX B: ITEMS WITHIN SCALES AND SUBSCALES

Service Empowerment – Consumer Interview

Service Decisions:

Response categories:

None	A little	Some	Quite a bit	Complete/ Completely	Don't Know N/A	Refuse/ Non-response
0	1	2	3	4	99	96

- How much control do you have over the types of mental health treatment or services you receive?
- How much are you involved in developing your treatment plan/care plan?
- How much does your treatment plan fit what you want?
- How much responsibility do you have for carrying out your treatment plan or meeting your treatment goals?
- When you experience a crisis, how much are you involved in resolving it?

Service Relationships:

Response categories:

Not at all	A little bit	Moderately	Quite a bit	Extremely	Don't Know N/A	Refuse/ Non -response
0	1	2	3	4	99	96

- How well are you currently getting along with your case manager?
- How well do you know your case manager?
- How well does your case manager know you?
- How much does your case manager help you learn to make your own decisions about your life?
- How much does your case manager really understand what you need?

Response categories:

Never	Seldom/ Rarely	Sometimes	Often	Always	Don't Know N/A	Refuse/ Non -response
0	1	2	3	4	99	96

- How often does your case manager take into account your ideas and opinions?
- How often do you take into account your case manager's ideas and opinions?
- How often does your case manager consider what you say to be important or valid?
- How often do you consider what your case manager says to be important?
- How often does your case manager take time to encourage you?
- How often does your case manager help you?
- How often does your case manager treat you with courtesy and respect?
- How often does your case manager ask about your feelings or personal issues?
- How often does your case manager share personal information with you about his/her life?
- How often does your case manager talk with you about his or her own limitations or admit when he/she has made a mistake?
- How often do you talk about personal matters or your feelings with your case manager?
- How often do you feel that your case manager really understands you?
- When you need help, how often do you turn to your case manager?
- How often do you feel that your case manager accepts you the way you are?

Service Empowerment – Case Manager Survey

Response categories:

None	A little	Some	Quite a Bit	Completely	Don't Know N/A	Refuse/ Non-response
1	2	3	4	5	99	96

Service Decisions:

- How much are consumers involved in developing their treatment plans?
- How much do treatment plans fit with what the consumers want?
- How much responsibility do consumers have for carrying out their treatment plans or meeting their treatment goals?
- How much are consumers involved in decisions about the amount or kind of medication they are prescribed?

Understanding Consumers:

- How much do you really understand what consumers need?
- How much do you help consumers learn to make decisions about their own lives?

Response categories:

Never	Seldom/ Rarely	Sometimes	Often	Always	Don't Know N/A	Refuse/ Non-response
1	2	3	4	5	99	96

Service Relationship:

- How often do you take into account consumers' ideas and opinions?
- How often do you consider what consumers say to be important or valid?
- How often do you encourage consumers?
- How often do you treat consumers with courtesy and respect?
- How often do you accept consumers the way they are?
- How often do you ask consumers about their feelings or personal issues?

Share Self:

- How often do you share personal information about your life with consumers?
- How often do you talk with consumers about your own limitations or admit when you have made a mistake?

Readiness for Mental Health Treatment – Consumer Interview

Instructions: Each statement describes how a person might feel when experiencing *mental or emotional problems*. Please indicate the extent to which you tend to agree or disagree with each statement. In each case, make your choice in terms of how you feel RIGHT NOW, not what you have felt in the past or would like to feel. Remember, in the statements, the "problem" refers to any *mental or emotional problem* you may have. "Here" refers to this mental health agency.

Response categories:

strongly disagree	Disagree	Undecided	Agree	strongly agree	Don't Know	Refuse/ Non -response
1	2	3	4	5	99	96

Precontemplation:
- Being here is pretty much a waste of time for me because the problem doesn't have to do with me.
- I guess I have faults, but there's nothing that I really need to change.
- I may be part of the problem, but I don't really think so.

Contemplation:
- I have a mental or emotional problem and I really think I should work on it.
- I'm hoping this place will help me to better understand myself.
- Maybe this place will be able to help me.

Action:
- I am really working hard to change.
- Anyone can talk about changing; I'm actually doing something about it.
- I am actively working on my mental or emotional problem.

Maintenance:
- I'm here to prevent myself from having a relapse of my mental or emotional problem.
- I thought once I had resolved the mental or emotional problem I would be free of it, but sometimes I still find myself struggling with it.
- It is frustrating, but I feel I might be having a recurrence of a mental or emotional problem I thought I had resolved.

Organizational Readiness to Change – Case Manager Survey

Instructions: Please CIRCLE the number below which reflects how accurately the following statements describe the activities, values, and practices of this agency.

Response categories:

Disagree Strongly	Disagree	Uncertain	Agree	Agree Strongly	Don't Know Not applicable
1	2	3	4	5	99

Motivational Readiness: Program Needs:
Your agency needs additional guidance in –
- Assessing consumer needs.
- Matching needs with services.
- Increasing agency participation by consumers.
- Measuring consumer outcomes.
- Developing more effective group sessions.
- Raising overall quality of case management.
- Using consumer assessments to guide clinical and agency decisions.
- Using consumer assessments to document agency effectiveness.

Motivational Readiness: Training Needs:
I need more training for –
- Assessing consumer problems and needs.
- Increasing consumer participation in treatment.
- Monitoring consumer progress.
- Improving rapport with consumers.
- Improving consumer thinking and problem solving skills.
- Improving behavioral management of consumers.
- Improving cognitive focus of consumers during case management.
- Using computerized consumer assessments.

Motivational Readiness: Pressures for Change:
Current pressures to make agency changes come from –
- Consumers in the agency.
- Agency staff members.
- Agency supervisors or managers.
- Agency board members.
- Community action groups.
- Funding and oversight agencies.
- Accrediting or licensing authorities.

Institutional Resources: Staffing:
How strongly do you agree or disagree with each of the following statements?
- There are enough case managers here to meet current consumer needs.
- A larger support staff is needed to help meet agency needs. (R)
- Frequent case manager turnover is a problem for this agency. (R)
- Case managers here are able to spend enough time with consumers.
- Support staff here have the skills they need to do their jobs.
- Case managers here are well trained.

Organizational Readiness to Change – Continued:

Institutional Resources: Training:
How strongly do you agree or disagree with each of the following statements?
- Staff training and continuing education are priorities at this agency.
- I learned new skills or techniques at a professional conference or off-site training in the past year.
- The budget here allows staff to attend professional conferences or off-site training each year.
- This agency holds regular in-service training.

Staff Attributes: Efficacy:
How strongly do you agree or disagree with each of the following statements?
- I have the skills needed to work effectively with groups.
- I consistently plan ahead and carry out my plans.
- I usually accomplish whatever I set my mind to.
- I am effective and confident in doing my job.
- I have the skills needed to conduct effective individual case management.

Staff Attributes: Adaptability:
How strongly do you agree or disagree with each of the following statements?
- I am willing to try new ideas even if some staff members are reluctant.
- Learning and using new procedures are easy for me.
- I am sometimes too cautious or slow to make changes. (R)
- I am able to adapt quickly when I have to shift focus.

Organizational Climate: Mission:
How strongly do you agree or disagree with each of the following statements?
- Some staff get confused about the main goals for this agency. (R)
- Agency staff understand how this agency fits as part of the treatment system in the community.
- My duties are clearly related to the goals of this agency.
- This agency operates with clear goals and objectives.
- Management here has a clear plan for this agency.

Organizational Climate: Autonomy:
How strongly do you agree or disagree with each of the following statements?
- Treatment planning decisions for consumers here often have to be revised by a clinical supervisor. (R)
- Management here fully trusts my professional judgment.
- Case managers here are given broad authority in treating their own consumers.
- Case managers here often try out different techniques to improve their effectiveness.
- Staff members are given too many rules here. (R)

Organizational Climate: Change:
How strongly do you agree or disagree with each of the following statements?
- Novel treatment ideas by staff are discouraged. (R)
- It is easy to change procedures here to meet new conditions.
- I frequently hear good ideas from staff for improving treatment.
- The general attitude here is to use new and changing technology.
- I am encouraged here to try new and different techniques.

Job Satisfaction:
How strongly do you agree or disagree with each of the following statements?
- I am satisfied with my present job.
- I would like to find a job somewhere else. (R)
- I feel appreciated for the job I do.
- I like the colleagues I work with.
- I give high value to the work I do here.
- I am proud to tell others where I work.

Organizational Readiness to Change – Continued:

Training Utilization:

Response categories:

Never	Rarely	Sometimes	A Lot	Almost Always	Don't Know Not applicable
1	2	3	4	5	99

- How often do new interventions or techniques that the staff from your agency learn at workshops get adopted for general use?
- How often do new ideas learned from workshops get discussed or presented at your staff meetings?
- How often does the management at your agency recommend or support new ideas or techniques for use by all case managers?

Agency Recovery Orientation – Consumer Interview

Response categories:

strongly disagree 1	Disagree 2	Undecided 3	Agree 4	strongly agree 5	Don't Know Not applicable 99

Life Goals:
- Staff encourage you to have hope and high expectations for yourself and your recovery.
- Staff believe that you can recover.
- Staff believe that you have the ability to manage your own symptoms.
- Staff believe that you can make your own life choices regarding things such as where to live, when to work, who to be friends with, etc.
- Staff encourage you to take risks and try new things.
- Staff help you to develop and plan for life goals beyond managing symptoms or staying stable (e.g., employment, education, physical fitness, connecting with family and friends, hobbies).
- Staff help you to find jobs.
- Staff help you to get involved in non-mental health/addiction related activities, such as church groups, adult education, sports, or hobbies.
- Staff work hard to help you fulfill your personal goals.
- Staff are knowledgeable about special interest groups and activities in the community.
- Agency staff are diverse in terms of culture, ethnicity, lifestyle, and interests.

Involvement:
- Staff help you to find ways to give back to your community, (i.e., volunteering, community services, neighborhood watch/cleanup).
- You are encouraged to help staff with the development of new groups, programs, or services.
- You are encouraged to be involved in the evaluation of this agency's services and service providers.
- You are encouraged to attend agency advisory boards and/or management meetings if you want.
- You are/can be involved with staff trainings and education programs at this agency.

Diversity of Treatment Options:
- You are given opportunities to discuss your spiritual needs and interests when you wish.
- You are given opportunities to discuss your sexual needs and interests when you wish.
- Staff introduce you to people in recovery who can serve as role models or mentors.
- Staff offer to help you connect with self-help, peer support, or consumer advocacy groups and programs.
- Staff talk with you about what it would take to complete or exit this program.

Choice:
- You can change your clinician or case manager if you want to.
- You can easily access your treatment records if you want to.
- Staff do not use threats, bribes, or other forms of pressure to get you to do what they want.
- Staff listen to you and respect your decisions about your treatment and care.
- Staff help you keep track of the progress you are making toward your personal goals.

Individually Tailored Services:
- Staff regularly ask you about your interests and the things you would like to do in the community.
- This agency offers specific services that fit your unique culture and life experiences.
- Staff help you to include people who are important to you in your recovery/treatment planning (such as family, friends, clergy, or an employer).
- Staff listen, and respond, to your cultural experiences, interests, and concerns.

The following two RSA items were not included in this study due to reliability issues:
- Staff welcome you and help you feel comfortable in this agency.
- The physical space of this agency (e.g., the lobby, waiting rooms, etc.) feels inviting and dignified.

Agency Recovery Orientation – Case Manager Interview

Response categories:

strongly disagree	Disagree	Uncertain	Agree	strongly agree	Don't Know Not applicable
1	2	3	4	5	99

Life Goals:
- Staff encourage consumers to have hope and high expectations for their recovery.
- Staff believe in the ability of consumers to recover.
- Staff believe that consumers have the ability to manage their own symptoms.
- Staff believe that consumers can make their own life choices regarding things such as where to live, when to work, who to be friends with, etc.
- Staff encourage consumers to take risks and try new things.
- Staff help consumers to develop and plan for life goals beyond managing symptoms or staying stable (e.g., employment, education, physical fitness, connecting with family and friends, hobbies).
- Staff routinely assist consumers with getting jobs.
- Staff actively help consumers to get involved in non-mental health/addiction related activities, such as church groups, adult education, sports, or hobbies.
- The primary role of agency staff is to assist a person with fulfilling his/her own goals and aspirations.
- Staff are knowledgeable about special interest groups and activities in the community.
- Agency staff are diverse in terms of culture, ethnicity, lifestyle, and interests.

Involvement:
- Staff actively help people find ways to give back to their community (i.e., volunteering, community services, neighborhood watch/cleanup).
- Consumers are encouraged to help staff with the development of new groups, agencies, or services.
- Consumers are encouraged to be involved in the evaluation of this agency's services, and/or staff.
- Consumers are encouraged to attend agency advisory boards and management meetings.
- Consumers are involved with facilitating staff trainings and education at this agency.

Diversity of Treatment Options:
- Staff offer consumers opportunities to discuss their spiritual needs and interests when they wish.
- Staff offer consumers opportunities to discuss their sexual needs and interests when they wish.
- Staff actively introduce consumers to persons in recovery who can serve as role models or mentors.
- Staff actively connect consumers with self-help, peer support, or consumer advocacy groups.
- Staff talk with consumers about what it takes to complete treatment.

Choice:
- Consumers can change their clinician or case manager if they wish.
- Consumers can easily access their treatment records if they wish.
- Staff do not use threats, bribes, or other forms of pressure to influence the behavior of consumers.
- Staff listen to and respect the decisions that consumers make about their treatment and care.
- Progress made toward an individual's own personal goals is tracked regularly.

Individually Tailored Services:
- Staff regularly ask consumers about their interests and the things they would like to do in the community.
- This agency offers specific services that fit each consumer's unique culture and life experiences
- Staff work hard to help consumers include people who are important to the consumer in their recovery/treatment planning (such as family, friends, clergy, or an employer).
- Staff at this agency regularly attend trainings on cultural competency.

The following two RSA items were not included in this study due to reliability issues:
- Staff make a concerted effort to welcome consumers and help them to feel comfortable in this agency.
- This agency offers an inviting and dignified physical environment (e.g., the lobby, waiting rooms, etc.)

Satisfaction with Treatment Planning – Consumer Interview

Response categories:

strongly disagree	Disagree	Undecided	Agree	strongly agree	Don't Know N/A	Refuse/ Non-response
1	2	3	4	5	99	96

Positive CM Relationship:
- Your case manager listens to what you have to say.
- You can talk with your case manager about your needs.
- Your case manager respects that you know what is best for you.
- Your case manager keeps in confidence the things that you tell him/her.
- You can talk with your case manager about how your mental illness impacts your life.
- Your case manager wants to help you identify goals about your life and recovery.
- You feel like your case manager is your partner in figuring out where you want to go and how to get there.
- Your case manager acts as an advocate for you.

Normalization:
- Your case manager sees you, not the illness.
- Your case manager believes that you are like everyone else – that you have strengths and weaknesses, skills, and abilities.
- Your case manager believes that with some supports, you can recover.

Frequency of Treatment Planning:
- You and your case manager, discuss your treatment plan often enough.
- You and your case manager change your treatment plan often enough.

Control:
- Your case manager is only concerned with you keeping appointments and taking your medication. (R)
- Your case manager fills out your treatment plan by him/herself and asks you to sign it. (R)

Satisfaction with Treatment Planning – Case Manager Survey

Response categories:

strongly disagree	Disagree	Undecided	Agree	strongly agree	Don't Know N/A	Refuse/ Non-response
1	2	3	4	5	99	96

Therapeutic Orientation:

- I listen to what consumers want to include in their treatment plans.
- Consumers with whom I work can talk to me about their needs.
- I keep in confidence the things that consumers tell me.
- Consumers with whom I work can talk with me about how their illness impacts their lives.
- I want to help consumers with whom I work identify goals about their lives and their recovery.

Normalization

- I see the consumer, not the illness.
- I believe that the consumers with whom I work are like everyone else – they have strengths and weaknesses, skills, and abilities.
- I believe that with some supports, consumers can recover.
- I feel like the consumer is an equal in the therapeutic relationship in figuring out what goals are important and how to reach those goals.
- I act as an advocate for consumers.

Control:

- My primary concerns for consumers' treatment plans are keeping appointments and medication management.
- I fill out treatment plans and then ask the consumers to sign them.

Knowledge of Consumer Outcomes – Consumer Interview

Response categories:

strongly disagree	Disagree	Undecided	Agree	strongly agree	Don't Know Not applicable
1	2	3	4	5	99

Knowledge of Outcomes Survey - True items:

- Your answers on the Outcomes Survey can help you identify your strengths.
- Your answers on the Outcomes Survey can help you identify the parts of your life in which you are unhappy or dissatisfied.
- You can use the Outcomes Survey to tell how you are doing in your recovery.
- You can use the Outcomes Survey to identify goals for your treatment plan.
- If you complete the Outcomes Survey more than once, you can look at the Outcomes Survey and see how your answers have changed.

Knowledge of Outcomes Survey - False items:

- Filling out the Outcomes Survey will not result in changes in financial services or programs you receive.
- Answering the questions on the Outcomes Survey can "pink slip" or put you in the hospital. (R)
- Answering the questions on the Outcomes Survey can give you a diagnosis or name for your problems. (R)

Knowledge of Consumer Outcomes – Case Manager Survey

Response categories:

strongly disagree	Disagree	Uncertain	Agree	strongly agree	Don't Know Not applicable
1	2	3	4	5	99

- The Ohio Outcomes Survey can help consumers identify their strengths.
- The Ohio Outcomes Survey can help consumers identify areas of their life in which they are unhappy or dissatisfied.
- The Ohio Outcomes Survey can help consumers understand how they are doing in their recovery program.
- The Ohio Outcomes Survey can help consumers identify goals for their treatment and/or recovery plan.
- If the Ohio Outcomes Survey has been completed more than once, the consumers can see how their answers have changed over time.
- Answering the questions on the Ohio Outcomes Survey can result in a diagnosis.

Using Data in Treatment Planning – Consumer Interview

Response categories:

strongly disagree	Disagree	Undecided	Agree	strongly agree	Don't Know Not applicable
1	2	3	4	5	99

- You and your case manager discussed your Strengths or Red Flags reports.
- You and your case manager discussed your answers to individual items on the Outcomes Survey.
- You and your case manager discussed how your answers on the Outcomes Survey fit with your life history.
- You and your case manager discussed how your answers on the Outcomes Survey can help you determine things you want to change.
- You and your case manager discussed how s/he views you similarly or differently than what you said on the Outcomes Survey.
- You and your case manager discussed how you answered questions about your *quality of life* on the Outcomes Survey. (Some sample questions on the survey about quality of life include: The amount of friendship in your life; How comfortable and well-off you are financially; How you and your family act towards each other; and How you feel about your housing and living arrangements).
- You and your case manager made goals on your treatment plan about your *quality of life*.
- You and your case manager discussed how you answered questions about *how much your symptoms are bothering you.* (These questions on the survey ask about how you are feeling in the past 7 days, some of these questions include: Feeling fearful; Nervousness or shakiness inside; Feeling lonely even when you are with people; and Feeling weak in parts of your body).
- You and your case manager made goals on your treatment plan about your *symptom distress*.
- You and your case manager discussed how you answered questions about your feelings of *empowerment* on the Outcomes Survey. (Some sample empowerment questions include: People working together can have an effect on their community; I feel powerless most of the time; Making waves never gets you anywhere; and I see myself as a capable person).
- You and your case manager made goals on your treatment plan about *empowerment*.

The following items were not included in the scale:

- When you fill out an Outcomes Survey, does your case manager give you a copy of the Strengths or Red Flags reports? (Yes/no)
- In your last treatment planning session, you and your case manager made changes on your treatment plan.
- You have taken the Outcomes Survey more than once. (Yes/no)
- If YES on the previous question, you and your case manager have discussed any changes you have made over time on the Outcomes Survey.

Using Data in Treatment Planning – Case Manager Survey

Response categories:

strongly disagree	Disagree	Uncertain	Agree	Strongly Agree	Don't Know Not applicable
1	2	3	4	5	99

Never	Seldom/ Rarely	Sometimes	Often	Always	Don't Know Not applicable
1	2	3	4	5	99

Outcomes Communication:

- Using the Ohio Outcomes Consumer survey helps me get to know the consumers I work with better.
- Using the Ohio Outcomes Consumer survey helps me to better understand a consumer's point of view.
- How often do you discuss with consumers how they are doing on certain subscales on the Outcomes Survey?
- If the consumer has taken the Outcomes Survey more than once, how often do you discuss changes on specific items or subscales with them?
- How often do you talk with consumers about how their answers on the Outcomes Survey fit with their life history?

Using Data in Treatment Planning:

- How often do you discuss with consumers their answers to individual items on the Outcomes Survey with them?
- How often do you use the Outcomes Survey to talk with the consumer about what areas they would like to make changes or create goals?
- How often do you use the Outcomes Survey with consumers to dialogue about which services and supports are available to meet their needs?
- My supervisor supports and encourages me to use the Outcomes Survey information in treatment planning with consumers.
- How often do you discuss an individual consumer's answers on the Outcomes Survey with your supervisor?

Strengths/Red Flags:

- How frequently do you produce Strengths or Red Flags reports?
- How often do you give copies of the Strengths or Red Flags reports to consumers with whom you work?

The following item was not included in the scale:

- Do you use the Strengths or Red Flags reports? (Yes/No)
- How often do you talk with consumers about information on the Provider Survey?

Workshop Evaluation – Consumer Interview

Response categories:

strongly disagree	Disagree	Undecided	Agree	strongly agree	Don't Know Not applicable
1	2	3	4	5	99

CDS Evaluation – Satisfaction:

- Overall, you are satisfied with the Climbing Into the Driver's Seat (CDS) course.
- In the CDS course you got the kind of information you needed.
- In general, CDS staff were competent.
- You felt safe talking about personal matters with CDS staff.
- You feel comfortable voicing your opinions (positive or negative) about this course.
- You have used some of the ideas from the CDS course with your case manager.
- You would recommend the CDS course to other mental health consumers.

CDS Evaluation – Application :

- The CDS course helped you become knowledgeable about your mental health issues.
- The CDS course helped you become more aware of how you are doing with your mental illness.
- The CDS course made a positive difference in how you feel about yourself as a person.

Workshop Evaluation – Case Manager Survey

Response categories:

Not at All	A Little	Some	A Lot	Very Much	Don't Know Not applicable
1	2	3	4	5	99

- How satisfied were you with the training "Using the ODMH Consumer Outcomes Instruments as Tools in a Person-Centered Recovery Planning Process" provided in the workshop?
- The information covered in the course is relevant to the needs of your clients.
- How often have you used any ideas or materials from the workshop?
- How useful were they?
- Have you recommended or discussed any ideas with others?
- How often do you expect to use these ideas or materials in the future?
- Your supervisor supports and encourages you to apply the course information in your case management.
- Are you interested in further, more specialized training?

APPENDIX C: OHIO OUTCOMES SYSTEM INSTRUMENTS

Ohio Mental Health Consumer Outcomes System
Adult Consumer Form

Today's Date ___ ___ / ___ ___ / ___ ___ ___ ___

Name _____

Date of Birth ___ ___ / ___ ___ / ___ ___ ___ ___

Gender (check one): Male ☐ Female ☐

Agency Use Only

Client's Medical Record Number

_____

We are very interested in how you are doing, and how our services may or may not be helping you. Please answer all of the questions below, then give the questionnaire to your case manager or another staff person at the mental health agency.

Part 1

Below are some questions about how satisfied you are with various aspects of your life in *the past 6 months*. For each question, checkmark ☑ the answer that best describes how you feel.

How do you feel about:

1. The amount of friendship in your life?

- ☐ Terrible
- ☐ Mostly dissatisfied
- ☐ Equally satisfied/dissatisfied
- ☐ Mostly satisfied
- ☐ Very pleased

2. The amount of money you get?

- ☐ Terrible
- ☐ Mostly dissatisfied
- ☐ Equally satisfied/dissatisfied
- ☐ Mostly satisfied
- ☐ Very pleased

3. How comfortable and well-off you are financially?

- ☐ Terrible
- ☐ Mostly dissatisfied
- ☐ Equally satisfied/dissatisfied
- ☐ Mostly satisfied
- ☐ Very pleased

4. How much money you have to spend for fun?

- ☐ Terrible
- ☐ Mostly dissatisfied
- ☐ Equally satisfied/dissatisfied
- ☐ Mostly satisfied
- ☐ Very pleased

5. The amount of meaningful activity in your life (such as work, school, volunteer activity, leisure activity)?

- ☐ Terrible
- ☐ Mostly dissatisfied
- ☐ Equally satisfied/dissatisfied
- ☐ Mostly satisfied
- ☐ Very pleased

6. The amount of freedom you have?

- ☐ Terrible
- ☐ Mostly dissatisfied
- ☐ Equally satisfied/dissatisfied
- ☐ Mostly satisfied
- ☐ Very pleased

7. The way you and your family act toward each other?

- ☐ Terrible
- ☐ Mostly dissatisfied
- ☐ Equally satisfied/dissatisfied
- ☐ Mostly satisfied
- ☐ Very pleased
- ☐ Does not apply

Please turn to the next page ➔

8. **Your personal safety?**
   - ☐ Terrible
   - ☐ Mostly dissatisfied
   - ☐ Equally satisfied/dissatisfied
   - ☐ Mostly satisfied
   - ☐ Very pleased

9. **The neighborhood in which you live?**
   - ☐ Terrible
   - ☐ Mostly dissatisfied
   - ☐ Equally satisfied/dissatisfied
   - ☐ Mostly satisfied
   - ☐ Very pleased

10. **Your housing/living arrangements?**
    - ☐ Terrible
    - ☐ Mostly dissatisfied
    - ☐ Equally satisfied/dissatisfied
    - ☐ Mostly satisfied
    - ☐ Very pleased

11. **Your health in general?**
    - ☐ Terrible
    - ☐ Mostly dissatisfied
    - ☐ Equally satisfied/dissatisfied
    - ☐ Mostly satisfied
    - ☐ Very pleased

12. **How often do you have the opportunity to spend time with people you really like?**
    - ☐ Never
    - ☐ Seldom/rarely
    - ☐ Sometimes
    - ☐ Often
    - ☐ Always

Part 2

The next few items ask you about your health and medications ***within the past 6 months***.

13. **How often does your physical condition interfere with your day-to-day functioning?**
    - ☐ Never
    - ☐ Seldom/rarely
    - ☐ Sometimes
    - ☐ Often
    - ☐ Always

14. **Concerns about my medications (such as side effects, dosage, type of medication) are addressed:**
    - ☐ Never
    - ☐ Seldom/rarely
    - ☐ Sometimes
    - ☐ Often
    - ☐ Always
    - ☐ Not applicable/no medications

The next two items deal with how you have been treated by other people.

---

15. **I have been treated with dignity and respect at this agency.**
    - ☐ Never
    - ☐ Seldom/rarely
    - ☐ Sometimes
    - ☐ Often
    - ☐ Always

16. **How often do you feel threatened by people's reactions to your mental health problems?**
    - ☐ Never
    - ☐ Seldom/rarely
    - ☐ Sometimes
    - ☐ Often
    - ☐ Always

Part 3

The following questions ask you about how much you were distressed or bothered by some things ***during the last seven days***. Please mark the answer that best describes how you feel.

During the past 7 days, about how much were you distressed or bothered by:

17. **Nervousness or shakiness inside**
    - ☐ Not at all
    - ☐ A little bit
    - ☐ Some
    - ☐ Quite a bit
    - ☐ Extremely

Please turn to the next page ➔

18. Being suddenly scared for no reason

- ☐ Not at all
- ☐ A little bit
- ☐ Some
- ☐ Quite a bit
- ☐ Extremely

19. Feeling fearful

- ☐ Not at all
- ☐ A little bit
- ☐ Some
- ☐ Quite a bit
- ☐ Extremely

20. Feeling tense or keyed up

- ☐ Not at all
- ☐ A little bit
- ☐ Some
- ☐ Quite a bit
- ☐ Extremely

21. Spells of terror or panic

- ☐ Not at all
- ☐ A little bit
- ☐ Some
- ☐ Quite a bit
- ☐ Extremely

22. Feeling so restless you couldn't sit still

- ☐ Not at all
- ☐ A little bit
- ☐ Some
- ☐ Quite a bit
- ☐ Extremely

23. Heavy feelings in arms or legs

- ☐ Not at all
- ☐ A little bit
- ☐ Some
- ☐ Quite a bit
- ☐ Extremely

24. Feeling afraid to go out of your home alone

- ☐ Not at all
- ☐ A little bit
- ☐ Some
- ☐ Quite a bit
- ☐ Extremely

25. Feeling of worthlessness

- ☐ Not at all
- ☐ A little bit
- ☐ Some
- ☐ Quite a bit
- ☐ Extremely

26. Feeling lonely even when you are with people

- ☐ Not at all
- ☐ A little bit
- ☐ Some
- ☐ Quite a bit
- ☐ Extremely

27. Feeling weak in parts of your body

- ☐ Not at all
- ☐ A little bit
- ☐ Some
- ☐ Quite a bit
- ☐ Extremely

28. Feeling blue

- ☐ Not at all
- ☐ A little bit
- ☐ Some
- ☐ Quite a bit
- ☐ Extremely

29. Feeling lonely

- ☐ Not at all
- ☐ A little bit
- ☐ Some
- ☐ Quite a bit
- ☐ Extremely

30. Feeling no interest in things

- ☐ Not at all
- ☐ A little bit
- ☐ Some
- ☐ Quite a bit
- ☐ Extremely

31. Feeling afraid in open spaces or on the streets

- ☐ Not at all
- ☐ A little bit
- ☐ Some
- ☐ Quite a bit
- ☐ Extremely

Please turn to the next page ➔

32. How often can you tell when mental or emotional problems are about to occur?

- ☐ Never
- ☐ Seldom/rarely
- ☐ Sometimes
- ☐ Often
- ☐ Always

33. When you can tell, how often can you take care of the problems before they become worse?

- ☐ Never
- ☐ Seldom/rarely
- ☐ Sometimes
- ☐ Often
- ☐ Always

Part 4

Below are several statements relating to one's view about life and having to make decisions. Please check the response that is closest to how you feel about the statement. Check the word or words that best describes how you feel now.

34. I can pretty much determine what will happen in my life.

- ☐ Strongly agree
- ☐ Agree
- ☐ Disagree
- ☐ Strongly Disagree

35. People are limited only by what they think is possible.

- ☐ Strongly agree
- ☐ Agree
- ☐ Disagree
- ☐ Strongly Disagree

36. People have more power if they join together as a group.

- ☐ Strongly agree
- ☐ Agree
- ☐ Disagree
- ☐ Strongly Disagree

37. Getting angry about something never helps.

- ☐ Strongly agree
- ☐ Agree
- ☐ Disagree
- ☐ Strongly Disagree

38. I have a positive attitude toward myself.

- ☐ Strongly agree
- ☐ Agree
- ☐ Disagree
- ☐ Strongly Disagree

39. I am usually confident about the decisions I make.

- ☐ Strongly agree
- ☐ Agree
- ☐ Disagree
- ☐ Strongly Disagree

40. People have no right to get angry just because they don't like something.

- ☐ Strongly agree
- ☐ Agree
- ☐ Disagree
- ☐ Strongly Disagree

41. Most of the misfortunes in my life were due to bad luck.

- ☐ Strongly agree
- ☐ Agree
- ☐ Disagree
- ☐ Strongly Disagree

42. I see myself as a capable person.

- ☐ Strongly agree
- ☐ Agree
- ☐ Disagree
- ☐ Strongly Disagree

43. Making waves never gets you anywhere.

- ☐ Strongly agree
- ☐ Agree
- ☐ Disagree
- ☐ Strongly Disagree

Please turn to the next page ➔

44. People working together can have an effect on their community.

- ☐ Strongly agree
- ☐ Agree
- ☐ Disagree
- ☐ Strongly Disagree

45. I am often able to overcome barriers.

- ☐ Strongly agree
- ☐ Agree
- ☐ Disagree
- ☐ Strongly Disagree

46. I am generally optimistic about the future.

- ☐ Strongly agree
- ☐ Agree
- ☐ Disagree
- ☐ Strongly Disagree

47. When I make plans, I am almost certain to make them work.

- ☐ Strongly agree
- ☐ Agree
- ☐ Disagree
- ☐ Strongly Disagree

48. Getting angry about something is often the first step toward changing it.

- ☐ Strongly agree
- ☐ Agree
- ☐ Disagree
- ☐ Strongly Disagree

49. Usually I feel alone.

- ☐ Strongly agree
- ☐ Agree
- ☐ Disagree
- ☐ Strongly Disagree

50. Experts are in the best position to decide what people should do or learn.

- ☐ Strongly agree
- ☐ Agree
- ☐ Disagree
- ☐ Strongly Disagree

51. I am able to do things as well as most other people.

- ☐ Strongly agree
- ☐ Agree
- ☐ Disagree
- ☐ Strongly Disagree

52. I generally accomplish what I set out to do.

- ☐ Strongly agree
- ☐ Agree
- ☐ Disagree
- ☐ Strongly Disagree

53. People should try to live their lives the way they want to.

- ☐ Strongly agree
- ☐ Agree
- ☐ Disagree
- ☐ Strongly Disagree

54. You can't fight city hall (authority).

- ☐ Strongly agree
- ☐ Agree
- ☐ Disagree
- ☐ Strongly Disagree

55. I feel powerless most of the time.

- ☐ Strongly agree
- ☐ Agree
- ☐ Disagree
- ☐ Strongly Disagree

56. When I am unsure about something, I usually go along with the rest of the group.

- ☐ Strongly agree
- ☐ Agree
- ☐ Disagree
- ☐ Strongly Disagree

57. I feel I am a person of worth, at least on an equal basis with others.

- ☐ Strongly agree
- ☐ Agree
- ☐ Disagree
- ☐ Strongly Disagree

Please turn to the next page ➔

58. People have a right to make their own decisions, even if they are bad ones.

- ☐ Strongly agree
- ☐ Agree
- ☐ Disagree
- ☐ Strongly Disagree

59. I feel I have a number of good qualities.

- ☐ Strongly agree
- ☐ Agree
- ☐ Disagree
- ☐ Strongly Disagree

60. Very often a problem can be solved by taking action.

- ☐ Strongly agree
- ☐ Agree
- ☐ Disagree
- ☐ Strongly Disagree

61. Working with others in my community can help to change things for the better.

- ☐ Strongly agree
- ☐ Agree
- ☐ Disagree
- ☐ Strongly Disagree

Part 5

Please tell us some things about yourself.

62. What was the last school grade you completed?

- ☐ Less than 1st grade
- ☐ 1st grade
- ☐ 2nd grade
- ☐ 3rd grade
- ☐ 4th grade
- ☐ 5th grade
- ☐ 6th grade
- ☐ 7th grade
- ☐ 8th grade
- ☐ 9th grade
- ☐ 10th grade
- ☐ 11th grade
- ☐ High school diploma/GED
- ☐ Trade/Tech school
- ☐ Some college
- ☐ 2 yr college/Associate degree
- ☐ 4 yr college/Undergraduate degree
- ☐ Graduate school courses
- ☐ Graduate degree
- ☐ Post-graduate studies
- ☐ Further special studies

63. Race (check all that apply):

- ☐ White
- ☐ Native American/Pacific Islander
- ☐ Black/African American
- ☐ Hispanic/Latino
- ☐ Asian
- ☐ Other _____

64. What is your marital status?

- ☐ Never married
- ☐ Married
- ☐ Separated
- ☐ Divorced
- ☐ Widowed
- ☐ Living together

65. What is your current living situation?

- ☐ Your own house/apartment
- ☐ Friend's home
- ☐ Relative's home
- ☐ Supervised group living
- ☐ Supervised apartment
- ☐ Boarding home
- ☐ Crisis residential
- ☐ Child foster care
- ☐ Adult foster care
- ☐ Intermediate care facility
- ☐ Skilled nursing facility
- ☐ Respite care
- ☐ MR intermediate care facility
- ☐ Licensed MR facility
- ☐ State MR institution
- ☐ State MH institution
- ☐ Hospital
- ☐ Correctional facility
- ☐ Homeless
- ☐ Rest home
- ☐ Other _____

66. What is your employment status?

- ☐ Employed full time
- ☐ Employed part time
- ☐ Sheltered employment
- ☐ Unemployed
- ☐ Student
- ☐ Homemaker
- ☐ Retired
- ☐ Disabled
- ☐ Inmate of institution

67. Are you in treatment because you want to be?

- ☐ Yes
- ☐ No

Please stop here. Thanks!

Ohio Mental Health Consumer Outcomes System
Provider Adult Form

Today's Date ___ ___ / ___ ___ / ___ ___ ___ ___	Consumer's Medical Record Number
Consumer's Name _____	_____

Please circle the appropriate response for each statement that corresponds with the consumer's highest level of functioning *in the past 6 months*.

1. Does the consumer initiate non-professional social contact or respond to others' initiation of social contact?

Withdrawn/ Isolated	Minimal Contact	Moderate Contact	Optimal Contact	Unsure

2. How effectively does this consumer interact with others? NOTE: "Effectively" refers to how successfully and appropriately the consumer behaves in social settings (i.e., how well she/he minimizes interpersonal friction, meets personal needs, achieves personal goals in a socially appropriate manner).

Very Ineffectively	Ineffectively	Mixed or Dubious Effectiveness	Effectively	Very Effectively	Unsure

3. How effective is the consumer's social support network in helping the consumer meet his/her needs? NOTE: A support network may consist of interested family, friends, acquaintances, co-workers, peers, social clubs, etc.

Very Ineffective	Ineffective	Mixed or Dubious Effectiveness	Effective	Very Effective	Unsure

4. Please rate the consumer's housing stability

Moved Very Frequently	Moved Often	Moved a Few Times	Moved Once	Did Not Move	Unsure

5. Has the consumer been forced/compelled to move from his/her living arrangements?

Yes	No	Unsure

Please turn to the next page ➔

6. **How well does the consumer perform independently in the following day-to-day living activities?**

	Task is not completed	Someone other than the consumer completes task	Consumer needs extensive supervision or assistance	Consumer needs some supervision or assistance	Consumer acts independently	Unsure or not applicable
A. Personal Hygiene	1	2	3	4	5	?
B. Dressing Appropriately	1	2	3	4	5	?
C. Obtaining Regular Nutrition	1	2	3	4	5	?
D. Using Public Transportation	1	2	3	4	5	?
E. Shopping	1	2	3	4	5	?
F. Doing Laundry	1	2	3	4	5	?
G. Housekeeping	1	2	3	4	5	?
H. Managing Money	1	2	3	4	5	?

7. **To what extent has the consumer engaged in the following meaningful activities?**

	Almost Never (<1x/month)	Seldom (<1x/week)	Sometimes (1-2x/week)	Often (3-4x/week)	Almost Always (≥5x/week)	Unsure or not applicable
A. Work	1	2	3	4	5	?
B. School	1	2	3	4	5	?
C. Volunteer Activity	1	2	3	4	5	?
D. Parenting	1	2	3	4	5	?
E. Homemaking	1	2	3	4	5	?
F. Leisure Activity	1	2	3	4	5	?

8. **Of the roles listed above, in general how well is the consumer performing in his/her primary role?**

Extremely Poorly | Poorly | Satisfactorily | Well | Extremely Well | Unsure

9. **How frequently is the consumer's functioning compromised by addictive or compulsive behaviors (e.g., alcohol abuse, drug abuse, gambling)?**

Almost Always (≥5x/week) | Often (3-4x/week) | Sometimes (1-2x/week) | Seldom (<1x/week) | Almost Never (<1x/month) | Unsure

Please turn to the next page ➔

10. Has the consumer abided by the law sufficiently to avoid incarceration and/or the criminal justice system?

No Yes Unsure

11. Has the consumer attempted to or actually physically harmed someone?

Yes No Unsure

12. Has the consumer been a victim of:

A. Rape	Yes _____	No _____	Unsure _____
B. Assault	Yes _____	No _____	Unsure _____
C. Threats	Yes _____	No _____	Unsure _____
D. Exploitation	Yes _____	No _____	Unsure _____
E. Harassment	Yes _____	No _____	Unsure _____
F. Suicide Attempt	Yes _____	No _____	Unsure _____
G. Other Types of Harm to Self	Yes _____	No _____	Unsure _____
H. Hate Crimes	Yes _____	No _____	Unsure _____
I. Theft, Robbery, Vandalism	Yes _____	No _____	Unsure _____

Please stop here. Thanks!

APPENDIX D: GLOSSARY

ANOVA. Analysis of Variance. A statistical procedure used to test differences between means of more than two groups. The ANOVA could estimate the difference between a treatment and control group (this would be equivalent to a *t*-test) or could estimate the differences between several groups at one time point. The *F* statistic and *p*-value are used to determine significant differences. For this study, unless otherwise noted, the *F* is significant if the *p*-value is < .05.

Baseline. Data on variables that are collected at the beginning of the study. Comparisons are made between baseline data and data gathered during the study to determine whether or not changes occur.

Chi-square (χ^2). A non-parametric tests that makes comparisons (usually of crosstabulated data – the frequency of two or more variables together) between two or more samples on the *observed frequency* of values with the *expected frequency* of values. Researchers often use chi-squares to test nominal (categorical) data. For this study, unless otherwise noted, the χ^2 is significant if the *p*-value is < .05.

Cluster Analysis. A type of analysis by which individuals or variables are clustered into groups based on similar characteristics of each..

Conceptual framework. A preliminary stage of a theory. A summary of concepts that pertain to the research study. Researchers use a conceptual framework as a guide when designing and carrying out the study.

Confidentiality. An assurance made to study participants that identifying information about them acquired through the study will not be released to anyone outside of the study.

Confounding variable. A variable that can interfere with the results of a study. A confounding variable is not the variable of interest in the study. However, if not controlled, confounding variables make the findings confusing, puzzling or difficult to interpret. Also known as an extraneous or intervening variable.

Construct. A group of ideas (concepts) that are derived from theories. Constructs are used to explain behaviors, relationships or characteristics of persons, objects or things.

Content Analysis. The analysis of text. The analysis can be quantitative, qualitative, or both. Typically the major purpose of content analysis is to identify patterns in text.

Context. Refers to the environment or setting in which an event occurs. Also refers to situations or conditions that precede or follow an event.

Continuous. Data or variables that differ by amounts or degrees. An example of continuous data is a person's age in years or months.

Control group. A group of individuals in a study who do not receive treatment or are treated in a traditional or regular manner. Researchers compare data from the control group and the experimental or intervention group to determine whether a treatment is effective. Also see Experimental group.

Correlation (*r*). A statistic that shows the degree of relationship between variables. range from –1.00 to + 1.00. The absolute value indicates the strength (the closer to 1.00 the stronger the correlation; a correlation of .70 or .80 are stronger than a correlation of .30). The sign indicates the direction. A positive sign means that the relationship is similar (as variable x increases, variable y increases, or as variable x decreases, variable y decreases). A negative sign means that the relationship is opposite (as variable x increases, variable y decreases, or as variable x decreases, variable y increases). The *r* statistic and *p*-value are used to determine significant differences. For this report, unless otherwise noted, correlations (*r*) are significant if the *p*-value is < .05.

Cross-sectional. A research design in which individuals or events are compared at the same point in time. For example, a cross-sectional design was used by researchers who wanted to look at the relationship among cultural factors, stressors, medication monitoring and psychiatric symptoms. The sample consisted of adults who received community-based services in Ohio's mental health system in a particular year. The adults were diagnosed with a severe, persistent mental illness. Several variables were examined, including age, gender, race, help needed in managing psychiatric medications, and interpersonal and environmental stressors.

Demographic data. Values that depict characteristics of a sample. Most often includes age, gender, race/ethnicity and socioeconomic data. Also see Socioeconomic data.

Dependent variable. A response, behavior or outcome that is measured to obtain research results; the variable affected by the independent (predictor) variable. Also known as outcome variable or criterion variable.

Descriptive statistics. Numbers or graphs used to summarize a set of scores; includes central tendency statistics (e.g., mean, median, mode), frequencies, percentages.

Design. A blueprint or guide for doing a scientific study. Includes a description of the setting (where the study takes place), the sample, methods, and plans for analyzing the data.

Factor Analysis. A statistical approach where the objective is to find a way of condensing the information contained in a larger number of original variables into a smaller set of variables (factors) with a minimum loss of information. By providing an empirical estimate of the "structure" of the variables considered, factor analysis is used for creating scales or subscales.

General Linear Model (GLM). GLM is an extension of Regression (see Linear Regression in Glossary). GLM can handle more than one dependent variable and allows for linear transformations or linear combinations of multiple dependent variables. Another advantage is the ability to analyze effects of repeated measure factors using linear combinations of responses reflecting a repeated measure effect (Time 1 and Time 2 responses). Repeated measure designs have traditionally been analyzed using ANOVA techniques.

Generalizable/Generalizability. The degree to which sample results can be universally applied or extended to the population from which the sample was taken.

Hypothesis. A formal statement that predicts the relationship between variables. A "hunch" about behaviors or events of interest that is examined in a research study.

Implications. What the research results mean and how the results can be used.

Independent variable. A variable that is controlled or fixed by the researcher. Also known as X-variable, predictor variable, explanatory variable, and factor. This variable may have an effect on the dependent variable. For example, if everybody in one group gets a new service, that service is the independent variable in the study. Also see Dependent variable.

Instrument. A device or mechanism to collect data in a systematic way. Interview guides, surveys, and questionnaires are examples of research instruments.

Interview. A two-way conversation started by an interviewer to obtain information. Interviews may be done with individuals or with groups of people. Interviews may be done in person (face-to-face), completed by telephone, or may involve use of a computer.

Likert scale. A scale where numbers or letters represent the extent to which a person agrees or disagrees with a series of statements or questions. Likert scales often include five choices that range from strongly agree to strongly disagree.

Linear regression. LR is a form of regression analysis in which the relationship between one or more independent variables and another variable, called the dependent variable, is modeled by a least squares function (called a linear regression equation). This function is a linear combination of one or more model parameters (called regression coefficients). A linear regression equation with one independent variable represents a straight line when the predicted value (i.e. the dependent variable from the regression equation) is plotted against the independent variable: this is called a simple linear regression. However, note that "linear" does not refer to this straight line, but rather to the way in which the regression coefficients occur in the regression equation.

Limitation. An aspect of a study that may influence the results or the extent to which the findings are generalizable.

Longitudinal. A research design in which the same individuals or events are studied at several points in time. This design allows researchers to observe changes over time.

Mean. Arithmetic average. The total result is divided by the number of scores. Extreme scores (those that are very high or very low) can skew the mean. Here, skew refers to distortion or misrepresentation. When a mean is skewed, it does not accurately show the "true" mean of a set of scores.

Measure. A standard or way to determine quantity or amount. Research measures are often used to assess characteristics, attitudes, behaviors, and abilities.

Methods. The steps and procedures to gather and analyze data in a research study. Part of a research report that explains the steps and procedures used in the study. Most often includes information about the sample, instruments/measures, and data collection times.

Model. A representation or copy of something in the real world that is used for testing. In a research study, a model is often presented as a map or diagram that shows how different variables are expected to be related. There are several kinds of models used in research. Examples include conceptual/theoretical models and statistical models.

Multivariate analysis. Statistical tests that examine more than two variables at the same time.

Non-parametric statistics. A group of statistical procedures that researchers use to test data that are not normally distributed. Also known as "distribution-free" statistics. Also see Distribution.

Parametric statistics. A group of statistical procedures that researchers use to test data that are normally distributed (e.g. ANOVA, Correlation, Regression,. Also see Distribution.

Population. A well-defined group of individuals, objects or events. All members of a population have at least one known characteristic in common. Researchers use data from samples to generalize findings to a population.

Post-hoc analyses. If the multivariate analyses are significant, post-hoc analyses are conducted, these are pair-wise comparisons between smaller subsets or groups (in text, "comparisons by agency").

Power. The probability that a statistical procedure or research design will detect differences or effects when they are present. Researchers use power to determine how likely they are to find "true," significant results based on the size of the sample.

***p* value. Probability value.** A number that reflects the likelihood that statistical results have occurred by chance. Results with p values equal to or less than .05, .01 or .001 are labeled as statistically significant. A significance of $p < .05$ means that there is less than 5% change that the given outcome could have occurred by chance. Also known as level of significance. Also see Statistical significance.

Qualitative research. A scientific study in which narrative information (detailed description) is obtained about complex issues, sensitive topics or life experiences. The information provides a deeper understanding and is used to generate new theories or hypotheses.

Quantitative research. A scientific study in which numerical information (numbers or values) is obtained about an issue, topic or problem. The information is used to describe or predict the relationship between variables, test research hypotheses and answer research questions.

Quasi-experimental. A research design that resembles an experimental design but has no random assignment. This design allows researchers to look at relationships between variables rather than causes and effects.

Reliability. In research, reliability means dependable in a general sense, but more specifically, repeatability or consistency. A measure is considered reliable if it would give you the same result over and over again. Researchers measure reliability in four main ways:

- Inter-rater or inter-observer reliability – multiple raters giving consistent estimates or ratings of the same event.
- Test-retest reliability – consistence of a measure when administered multiple times to the same individual
- Parallel-forms reliability – when two tests constructed in the same way from the same content give similar results (e.g., split-half reliability)
- Internal consistency reliability – comparing statistics across items within the same test. This is usually assessed with Cronbach's alpha (α) – researchers use this statistic to determine how well items on questionnaires and scales "hang together." They also use this statistic to evaluate whether the items measure the same characteristic at different points in time and in different samples. An $\alpha > .60$ is considered adequate; an $\alpha > .70$ is good, an $\alpha > .80$ is better, and an $\alpha > .90$ is considered excellent. Alpha levels less than .60 mean that the items do not hang together very well. Measures with a low reliability should be interpreted cautiously.

Representative/representativeness. The extent to which a sample reflects characteristics of the population from which it was taken. How closely characteristics of the sample resemble or match characteristics of the population.

Sample. A smaller set of cases taken from a larger population of people, objects or events for the purpose of making inferences about the larger population. This is helpful because you cannot test everyone in the population. In order to accurately make inferences, the sample must be representative of the population.

Sample size. The actual number of people, objects or events involved in the research study.

Statistic. A number or value that is calculated from data.

Statistical Significance. A conclusion made about the results of statistical tests. If results are statistically significant, it is unlikely they happened by chance or by errors in sampling. If results are not statistically significant, any differences may be due to chance, or are too small to be meaningful. Statistical significance does not mean that the results automatically have practical significance or importance. Also see *p* value.

Theory. A group of statements that explain a set of events, facts, behaviors, and experiences. In research, a theory describes one's point of view or perspective about how these are interrelated.

***t*-test.** Researchers use this statistical test to see if differences exist between the means for two different groups. The *t* statistic and *p*-value are used to determine significant differences. For this study, unless otherwise noted, the *t* is significant if the *p*-value is < .05. There are three types of *t*-tests:

- The Independent samples *t*-test compares the means of two different samples and there is no overlap between group membership (e.g., the difference between males and females on an exam score; or the difference of life-satisfaction scores between those who have been diagnosed with a mental illness and those who have not been diagnosed with a mental illness).
- Paired *t*-tests are conducted when the same group of individuals experiences two conditions of the variable of interest (e.g., students scores on quiz 1 compared with the same students' scores on quiz 2; or quality of life before receiving mental health treatment, and quality of life 6 months after receiving mental health treatment).

Variable. A characteristic or attribute of interest in a research study.