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The Effectiveness of Utilizing the Treatment Support Measure
for Treatment Planning in Youth Mental Health Services

Adam D. Garland

A dissertation submitted to the faculty of
Brigham Young University
in partial fulfillment of the requirements for the degree of

Doctor of Philosophy

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ABSTRACT

The Effectiveness of Utilizing the Treatment Support Measure for Treatment Planning in Youth Mental Health Services

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Doctor of Philosophy

The use of treatment support tools to enhance client outcomes is not well understood in the youth treatment literature. Adult outcome researchers have found that the use of Clinical Support Tools (CST) leads to improved outcomes with clients identified as at risk for treatment failure. However, the American Psychological Association (APA) has noted that understanding important client factors that influence treatment is critical during the clinical formulation and treatment planning phase of therapy. No studies to date have evaluated the effectiveness of utilizing a CST as a treatment planning tool with youth clients. The purpose of this study was to evaluate the effectiveness of the Treatment Support Measure, a CST, for the purpose of treatment planning rather than as a reaction to clients who became at-risk for treatment failure. Two hundred and eight youth participants and their caregivers from three outpatient community mental health clinics were randomly assigned to a feedback (TSM-FB) or Non-FB condition. All participants completed the Youth Outcome Questionnaire (Y-OQ) at each session. The TSM was administered to clients in the TSM-FB condition during the intake session. Only therapists whose clients were in the TSM-FB condition received TSM and Y-OQ data. A multilevel model was created to evaluate for differences between conditions on the dependent variable. The initial randomization failed to create similar groups at intake and a statistically and clinically significant difference was detected on the Y-OQ at intake. As such, no conclusions can be drawn for hypotheses tied to the primary dependent variable. Premature termination (PT) rates were significantly lower for the TSM-FB condition when defined as attending more than one session. Contrastingly, there was no difference between conditions on PT when defining PT based on the therapist's opinion. A significant minority of therapists (40%) found that the TSM was useful for treatment planning compared to 10% which did not.

Keywords: treatment planning, TSM, youth psychotherapy, outcomes, Y-OQ, CST

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The Effectiveness of Utilizing the Treatment Support Measure for Treatment Planning in Youth Mental Health Services

A longstanding concern in the community mental health literature is the observation that many youth do not show significant improvement in symptoms (Warren, Nelson, Burlingame, & Mondragon, 2012; Weisz, Ng, Rutt, Lau, & Masland, 2013). Estimates of clients ending therapy without having a reduction in symptoms (de Haan, Boon, de Jong, Hoeve, & Vermeiren, 2013; Dulmus & Wodarski, 1996) or even worsening as therapy progresses (Warren, Nelson, Mondragon, Baldwin, & Burlingame, 2010) are much higher in youth than for adults. Previous studies such as these led the American Psychological Association (APA) to create a task force designed to identify practices that are supported by research evidence and are most likely to lead to good outcomes for all clients.

In 2006, the APA's Presidential Task Force for Evidenced-based Practice in Psychology (EBPP) stated that attending to unique client variables is an essential part of EBPP. Indeed, they reported that "available data indicates that a variety of client-related variables influence outcome..." (APA, 2006, p. 279) and that "psychological services are most likely to be effective when they are responsive to the client's specific problems, strengths, personality, sociocultural context, and preferences" (APA, 2006, p. 278). As such, they noted that attending to the client's context (both social and environmental) is an important part of evidenced-based practice.

While previous research has successfully identified a number of important variables that influence treatment outcomes for youth clients (e.g., therapeutic alliance, social support, motivation for treatment), the majority of these studies have been retrospective in nature and attempted to measure outcomes—not change them (de Haan et al., 2013; Warren et al., 2012). In recent years, adult outcome researchers have found that providing feedback on these important

variables to clinicians when a client is not improving in therapy can significantly improve their chance for a successful outcome (ES = .44; Shimokawa, Lambert, & Smart, 2010).

These findings are promising; however, rather than waiting until a client is not improving to obtain this vital information, it may be helpful to obtain this data at an earlier phase of treatment. Indeed, the APA's Presidential Task Force on EBPP argues that understanding these variables is important in *case formulation* and *treatment planning* (APA, 2006). However, to our knowledge, no studies have examined the impact of providing therapists data on important variables that influence outcomes *at the beginning of treatment*. The purpose of this study was to provide therapists with data on their client's social and environmental context during the treatment planning phase of therapy and evaluate a) its influence on outcome and b) the impact it has on therapist understanding of client problems at the beginning of treatment.

Youth Treatment Outcomes

Sub-optimal treatment outcome is a critical concern for youth who receive treatment in community mental health settings. Youth clients who do not improve in treatment are likely to have symptoms persist or worsen later in life (de Haan et al., 2013; Lampropoulos, 2010)). In addition, they are at an increased risk for negative consequences such as dropping out of high school, engaging in delinquent activities, abusing drugs and alcohol, becoming unemployed, and a variety of other negative life outcomes (Björk, Björck, Clinton, Sohlberg, & Norring, 2009; Lochman & Salekin, 2003; Moffitt, Caspi, Harrington, & Milne, 2002; Swift, Callahan, & Levine, 2009). These outcomes are sobering given the high incidence rates of youth terminating treatment without experiencing improvement in symptoms (or even worsening in symptoms) and youth dropping out of therapy without meeting treatment goals (i.e., prematurely terminating or not persisting in treatment; Hatchett & Park, 2003; Warren et al., 2010). Given the commonality

of these problems in community mental health centers, it is helpful to give additional context to these issues.

Treatment outcomes and treatment failure. The effectiveness of treatment has become a major area of emphasis in the field of psychology. This focus has led to a greater evaluation of treatment effectiveness through outcome studies in real-world settings (APA, 2006). However, results of these outcome studies in youth psychotherapy are disappointing and have yielded only small overall mean effects ($ES = .29$; Weisz, Ugueto, Cheron, & Herren, 2013). Furthermore, while some clients experience improvement in therapy, a sizable number of clients end therapy experiencing *deterioration or treatment failure*.

Treatment failure occurs when clients end therapy significantly worse than when they began. Treatment failure has been an area of clinical interest for many years. The Reliable Change Index (RCI) is a useful metric that has allowed clinicians and researchers to elucidate true change in therapy—rather than change that may be the result of measurement error or chance (Jacobson & Truax, 1991). This metric has allowed researchers to statistically identify clients who experience treatment failure (i.e., statistically significant worsening of symptoms in therapy). Subsequently, this criterion was applied to outcome data from over 4,000 youth in community mental health and managed care settings (Warren et al., 2010). Twenty-four percent of youth served in community mental health settings ended therapy in treatment failure whereas fourteen percent of youth clients in managed care settings experienced treatment failure. These findings highlight the significant challenge that clinicians in community mental health settings face. As such, studying youth outcomes and change processes—particularly in community mental health settings—warrants closer study.

Premature termination. A related concern for youth clients is the phenomenon of premature termination. Premature termination (PT) has been defined as occurring when a client unilaterally discontinues treatment prior to recovering from the problem that led them to enter treatment (Swift & Greenberg, 2012). Researchers have defined PT by a) some form of session length criteria, b) the therapist's opinion of having met treatment goals or c) a significant reduction in client symptoms. These varying definitions of PT have led to confusion regarding the actual prevalence of PT.

A recent meta-analysis of forty-eight studies found broad estimates of PT ranging from sixteen to seventy-five percent (de Haan et al., 2013). Definitions of PT that included some form of session length yielded a mean PT rate of 44.5%. Contrastingly, when using a second definition of PT, the therapist's opinion of whether the client achieved treatment goals, the mean PT rate was 35.8%. However, for community mental health settings, the therapist opinion yielded a mean PT rate of 45.3%. These high rates of PT in community mental health settings are sobering.

Such findings (i.e., relatively high rates of deterioration, and high rates of premature termination) lead one to consider why community mental health settings experience greater difficulty. A possible contributor to this difficulty is the reality that community mental health settings are usually supported, at least in part, by government funding (e.g., Medicaid) and often have clients with significant stressors and negative circumstances often accompanied by financial disadvantage (Warren et al., 2010). In addition, these organizations often serve the brunt of the community with individual therapists maintaining heavy caseloads (Morse, Salyers, Rollins, Monroe-DeVita, & Pfahler, 2012). Such circumstances have only contributed to the difficulty in providing good psychotherapy services in community mental health organizations.

As such, it is imperative that we provide tools to clinicians that will improve the outcomes of the clients they serve.

Routine outcome monitoring. In the late 1990's, a new model for evaluating client outcomes and enhancing clinical awareness and decision making was introduced that focused on client-centered feedback via routine outcome monitoring (Howard, Moras, Brill, Martinovich, & Lutz, 1996). As opposed to evaluating client outcomes at the beginning and end of treatment, routine outcome monitoring (ROM) consists of regularly monitoring client progress in therapy using standardized instruments (Lambert, 2007). Algorithms embedded in these ROM systems are designed to detect when a client is not making expected progress in therapy and is at-risk for treatment failure. Immediate feedback can then assist clinicians in making decisions related to the treatment of their client (e.g., maintain treatment pattern, alter treatment goals, terminate treatment, etc.; Kazdin, 2008).

Numerous studies have supported the use of client centered feedback via ROM in routine clinical care. These studies suggest that the utilization of systematic, client centered feedback tends to result in a number of positive outcomes for clients identified as at-risk for treatment failure including: higher mental health functioning after therapy, lower incidence rates of deterioration, and faster rates of improvement for clients (Bickman, Kelley, Breda, de Andrade, & Riemer, 2011; Harmon et al., 2007; Shimokawa et al., 2010; Simon et al., 2013). The preponderance of evidence in support of ROM has caused the APA to identify ROM as a critical component of EBPP.

In addition to the numerous therapeutic benefits of utilizing ROM, systematically collecting client data at each session also provides the opportunity to evaluate change at different time points in therapy. This stands in contrast to past research designs where therapists only had

access to data at a pretest and then irregularly throughout therapy. Through the use of systematic data collection via ROM, researchers can look for more nuanced change such as non-linear change or change that occurs at the beginning, middle, or end of treatment. The ability to identify early changes in therapy due to enhanced treatment planning is a critical component of this study.

Treatment Planning

In 2006, the American Psychological Association's (APA's) Presidential Task force for Evidenced-based Practice in Psychology (EBPP) highlighted the importance of treatment planning as important part of evidenced-based practice (APA, 2006). Treatment planning is a complex clinical process that requires clinicians to integrate vast amounts of information into a synthesized plan for the treatment of their client (Jongsma, Peterson, McInnis, & Bruce, 2014). Data from clinical assessments, interviews, and referral sources are utilized to make diagnoses and to develop a conceptualization of the process by which the client's problems have occurred and are being maintained. Certainly, this process includes attending to client distress and client variables related to change processes and outcomes. The identification of these variables can assist therapists in making decisions related to the treatment of their clients (e.g., utilize different evidenced-based treatment, focus on social skills, engage in motivational interviewing, etc.).

Variables Associated with Treatment Outcomes

Numerous variables (e.g., age, gender, ethnicity, client characteristics, family characteristics, therapist characteristics, etc.) have been identified as having an impact on treatment outcomes (Kelley, Bickman, & Norwood, 2010; Prins, Ollendick, Maric, & Mackinnon, 2015). However, variables that a) can be targeted in treatment and b) are amenable to change may be of greatest importance to therapists within the context of treatment planning.

These variables have been placed into two primary groups (client characteristics and family characteristics) and are discussed in further detail below.

Client characteristics. One of the best studied client characteristic related to treatment outcomes is social support. A number of studies have indicated that client social support may be related to good treatment outcomes (Bal, Crombez, Van Oost, & Debourdeaudhuij, 2003; Stice, Ragan, & Randall, 2004; Maric, Wiers, & Prins, 2012; Tol et al., 2010; Warren, Stein, & Grella, 2007). In a recent study, researchers examined the relationship between perceived social support and youth improvement in therapy (Dindinger, 2012). The author systematically collected data from 199 youth who completed regular self-reports on perceived social support and progress in therapy. The author reported a significant positive association between changes in perceived social support and patient outcome. These findings add additional support to the moderating impact of social impact on client outcomes.

Another variable related to treatment outcome that has garnered attention in the research literature is self-efficacy. Self-efficacy has been described as the perception that one has of their ability to competently and effectively deal with specific situations (Bandura, 1982; Bandura, 1989). Bandura hypothesized that changes in self-efficacy may lead to improved coping with psychological symptoms and greater effort and persistence in dealing with difficult tasks. In a study of 208 adolescent clients in substance use treatment, researchers evaluated the mediating role of self-efficacy in treatment. The researchers found that self-efficacy mediates the relation between treatment participation and depressive symptom reduction as well as time to drug use recidivism. Other studies have also been successful in linking increases in self-reported self-efficacy to subsequent reductions in youth mental health symptoms (Maric et al., 2012).

Youth clients are often referred to treatment by caregivers and may not view their behavior as problematic. In their view, behavior that led to the treatment referral may not be a priority for change. Thus, they may not be highly motivated to participate in therapy if they do not see problem areas. Early studies with youth clients have indicated that increases in youth motivation have been connected to reductions in substance use behaviors (McCuller, Sussman, Wapner, Dent, & Weiss, 2006). A recent study of youth motivation in therapy indicated that, on average, most youth experience significant increases in motivation over the course of treatment according to youth and parent reports (Merrill, Warren, Garcia, & Hardy, 2017). Likewise, parent motivation interventions have been identified as effectively improving parent retention in parent training interventions (Chaffin et al., 2009).

Family characteristics. A youth patient's parent and family functioning has a significant impact on youth therapy outcomes. The family environment, individual family members' interpersonal functioning, parental distress and expectations for treatment are all important factors that impact a youth's participation in treatment and their outcomes (Fields, Handelsman, Karver, & Bickman, 2004; Hutchings, Appleton, Smith, Lane, & Nash, 2002; Pellerin, Costa, Weems, & Dalton, 2010; Reyno & McGrath, 2006). Such studies indicate that targeting these areas for specific intervention may result in improvements for youth clients.

Many interventions for child behavioral problems specifically focus on enhancing parenting skills to manage difficult behaviors (Barkley, 2013; Eyberg & Bussing, 2011). However, recent studies have indicated that effective parenting is associated with a number of positive outcomes—including physical and mental health outcomes (Chan & Koo, 2011; O'Connell, Davis, & Bauer, 2015). In particular, some longitudinal studies have suggested that

when parenting skills improve, youth outcomes also improve (Henderson, 2013; Warren et al., 2008).

A closely related construct to parenting skills is that of parenting self-efficacy. Parenting self-efficacy deals with the beliefs or judgments one has about their own ability to be successful in a parenting role (Hess, Teti, & Hussey-Gardner, 2004). In a recent study of children with behavior and emotional problems, parents were divided into two groups—high controllability vs. low controllability (Woolfson, Taylor, & Mooney, 2011). Parents who reported having a good ability to manage their child's behavior were assigned to the high controllability group whereas parents who felt incapable of controlling their child's behavior were assigned to the low controllability group. It was not surprising to find a correlation in that parents who felt they had a good ability to control their child's behavior reported fewer aggressive and rule breaking behavior. Likewise, it was also found that children with parents in the high controllability group were also trending towards fewer social and other problems in their lives. Lastly, children whose parents were in the high controllability condition were not significantly different from a control condition on problematic behaviors. Lastly, Warren, Brown, Layne, & Nelson (2011) evaluated the effect of parenting self-efficacy on 271 youth in a community mental health center. Individual growth curve modeling was utilized to examine patterns of change in self-efficacy domains and child symptoms. The results of their study revealed that initial levels of parenting self-efficacy did not predict outcomes; however, when parenting self-efficacy increased during therapy, it significantly predicted a reduction in youth symptoms (Warren et al., 2011).

The degree to which parents feel that they have a strong social support network may also have implications for youth treatment. Parents who feel supported socially may have a greater capacity to support their children (e.g., consistent parenting, emotional support, etc.) in difficult

times (Warren & Lambert, 2013). Early studies on parent social support proposed a linkage between improvement in social support and subsequent reduction in youth symptoms and prosocial behaviors (Warren et al., 2008). One recent study evaluated the direct effect of parent social support on youth behavior in 781 at-risk youth. The authors noted that there was a significant relationship between a parent's perceived social support and the prosocial behaviors elicited by their children (Reynolds & Crea, 2016). This link between parent social support and youth behavior may be an important area to address in the treatment of youth clients.

Each of these variables described appears to play an important part in youth treatment outcomes. Some of the more salient variables have been identified and incorporated into clinical support tools (CST) which have been utilized in the context of ROM. Substantial improvements in outcomes have been found through the use of these tools with adult clients (Shimokawa et al., 2010).

Clinical Support Tools

Clinical Support Tools (CST) are designed to assess client functionality on important variables that a) can be changed via targeted interventions in therapy and b) are closely related to good psychotherapy outcomes (Whipple et al., 2003). Historically, CST have been utilized with clients who have been identified as being off-track in therapy through ROM tools. These tools then provide a compilation of evidenced-based interventions for problematic areas identified by the CST. Numerous studies have supported the use of these tools for the purpose of averting treatment failure with "not on track" (NOT) clients (Harmon et al., 2007; Hawkins, Lambert, Vermeersch, Slade, & Tuttle, 2004; Slade, Lambert, Harmon, Smart, & Bailey, 2008; Whipple et al., 2003).

The Treatment Support Measure (TSM) is a recently developed CST designed for youth clients. It consists of items that were chosen because they address several of the important variables related to youth treatment outcomes described in the previous section. Items for the TSM were selected because they cluster around important domain variables associated with client change in previous studies (Warren et al., 2008). However, no studies have evaluated the impact of the use of the TSM (or any other youth CST) within the context of treatment planning.

One study in the adult literature investigated the impact of providing CST feedback at the beginning of treatment to clinicians of 252 clients in an inpatient psychosomatic clinic who remained on-track in therapy (Probst, Lambert, Dahlbender, Loew, & Tritt, 2014). Clients were randomized to a feedback (FB) and Non-FB condition. Therapists whose clients were in the FB session were given CST feedback at the second session and subsequent sessions of treatment. A ROM, the Outcome Questionnaire-45 (OQ-45), was administered at each session of treatment. Participants in the no feedback condition also completed the OQ-45 at each session but no feedback was given to therapists. It was expected that having the use of CST feedback at the beginning of treatment would enhance therapy outcomes. This study was of particular interest given that the first sessions of treatment are considered a critical season given high rates of PT and the initial creation and implementation of a comprehensive treatment plan. The authors evaluated the effectiveness of the CST by comparing OQ scores over the course of five time points—the first four sessions in therapy and an end point. The authors noted that there was no significant difference in final outcomes for clients who remained on-track during therapy. However, they did report that participants in the feedback condition improved more quickly in terms of symptom distress immediately after CST feedback was provided to clinicians (between the second and third sessions).

While this study is a good first step in elucidating the value of CST for treatment planning, there are a few drawbacks to the study. For example, this study was conducted on an inpatient unit which likely does not reflect outpatient psychotherapy in terms of client environment, social support, or motivation for treatment. Likewise, this study only looked at on-track clients and did not include treatment non-responders or treatment failures. Lastly, this study was conducted on adult clients which limits the generalizability of the study to youth in community mental health settings.

Despite the limitations of the previous study, there are indications that the use of CST at the beginning of treatment may lead to a faster improvement in self-reported symptoms. However, there are no current youth studies that evaluate the effectiveness of using a CST with youth clients at the beginning of treatment. Given the close association between the variables measured by the TSM, a CST, and youth treatment outcomes, we feel that it may be useful to therapists to have this feedback during the initial treatment planning phase of therapy. Likewise, it is important to identify whether such feedback will lead to faster improvement in youth symptoms during the early sessions of treatment (i.e., the first five sessions).

In order to determine the usefulness of the TSM to therapists, a measure, the Therapist Questionnaire (TQ), was created to evaluate the usefulness of providing this data to therapists at the beginning of treatment. The TQ is an eight-item questionnaire that is designed to evaluate the degree to which therapists feel that they had a comprehensive and detailed understanding of their client's functioning at the beginning of treatment. Questions were selected because they reflected the important domains that the APA's Task Force for EBPP (2006) suggested should be included in evidenced-based treatment planning.

Limitations of Previous Research

Understanding and attending to client variables in case formulation and treatment planning is an essential part of evidenced-based practice (APA, 2006). However, no studies have assessed domains relevant to client change at the beginning of treatment and subsequently provided this information to therapists as actionable feedback to assist in treatment planning. Prior studies in the adult literature have focused on providing this data to therapists when clients have been identified as being at risk for treatment failure (via ROM); however, we feel that this information may be more valuable at the earliest phase of therapy (Shimokawa et al., 2010). For example, when clients are identified as having low motivation for treatment or little social support, therapists can utilize this data to guide early treatment interventions.

Purposes of the Study

The purpose of this study was to evaluate the benefits of providing therapists data regarding important client variables *at the beginning of treatment*. Specific aims of this study included: 1) Examine the usefulness of providing TSM feedback to therapists during treatment planning; 2) Examine differences between therapists who received TSM feedback during treatment planning and those who did not receive TSM feedback on self-reported “thoroughness” in treatment planning as measured by the TQ; 3) Examine differences in change trajectories between clients whose therapist receive TSM feedback at the beginning of treatment and those who do not receive TSM feedback during treatment planning.

Hypotheses. Based on the past research literature, the present study’s hypotheses were as follows:

1. If therapists receive TSM feedback, then their clients will demonstrate a faster reduction in Y-OQ symptoms over the first five sessions of therapy.

2. If therapists receive TSM feedback, then their clients will experience a greater overall change in Y-OQ symptoms during the first five sessions of therapy.
3. If therapists receive TSM feedback, then they will report fewer incidents of their clients not reaching treatment goals (i.e., prematurely terminated)
4. If therapists receive TSM feedback, then a fewer percentage of their clients will be identified as being at-risk for treatment failure by the OQ®-Analyst software program during the first five sessions of therapy
5. If therapists receive TSM feedback, then they will have significantly higher mean scores on the Therapist Questionnaire Total Score --indicating a more comprehensive and detailed understanding of their client's functioning at the beginning of treatment.
6. If therapists receive TSM feedback, then they will agree that having access to TSM data at the beginning of treatment was helpful to them.

Method

This study was conducted in the context of a broader, ongoing research program examining child and adolescent psychotherapy processes and outcomes. The focus of the present study centers on the effectiveness of the TSM for treatment planning at the beginning phase of treatment. Ongoing data collection continues for research questions related to the broader research project.

Participants

Participants in this study included 40 therapists and 208 youth clients (youth and parent dyads) who received psychotherapy treatment from one of three community mental health clinics located in the Intermountain West region of the United States. All therapists at the three Intermountain West locations were invited to participate. Utilizing a written script, therapist

participants were informed of the purpose of the study at a weekly in-service meeting and invited to participate. Likewise, all new clients of therapists recruited to participate in the study were given the opportunity to participate. The exclusion criteria included clients who were 1) younger than four, 2) older than seventeen, or 3) not able to read/speak English well enough to complete measures. Youth clients and their parents were approached by research assistants prior to their intake session. Research assistants informed participants of the purpose of the study using a written script. Participants were then invited to participate. All therapists who were approached and eligible agreed to participate in the study while 91% of youth participants agreed to be involved in the study. Fourteen youth participants were removed from the study for a variety of reasons including incorrect condition assignment and transfers to therapists not participating in the study. The final number of participants available for data analysis was 194.

Youth and their parents were demographically representative of people seeking outpatient treatment in the Intermountain West region. According to their clinical charts, 52% of clients identified as male ($n = 101$) and 47% identified as female ($n = 93$). Most participants were under the age of twelve with the average age of participants being ten ($M = 10.06$, $SD = 3.68$). Rates of Ethnicity in the population included 74% Caucasian, 9% Hispanic/Latin, 5% Hispanic White, 2% African/American, 2% Asian/Pacific Islander, 1% African-American and 5% Other. A review of client charts indicated that participants in the study met criteria for a wide range of diagnoses including 40% Anxiety Disorders ($n = 77$), 26% Adjustment Disorders ($n = 51$), 23% Depressive Disorders ($n = 45$), 20% Attention-Deficit/Hyperactivity Disorder ($n = 39$), 9% Autism Spectrum Disorders ($n = 17$), 8% Behavior Disorders ($n = 15$), 7% PTSD, 6% Mood Disorders ($n = 12$), and 9% Other Disorders ($n = 18$). Forty-four percent of participants met

criteria for more than one disorder ($n = 85$) See Table 1 for an analysis of demographic information between randomized conditions.

Table 1
Client Characteristics by Condition Assignment

Condition	n	Age	Males	Avg. # of Sessions
TSM-Feedback (TSM-FB)	111	9.91 (3.62)	52%	4.75 (3.84)
Non-Feedback (Non-FB)	83	10.29 (3.77)	52%	5.24 (4.04)

Note. All clients did not provide data for every variable. As such, there are some fluctuations in the total sample size for each variable. Avg. # of Session = the average number of sessions attended.

Measures

Youth Outcome Questionnaire. Following routine practice in this treatment setting, parents/caregivers of the youth in the study completed the Youth Outcome Questionnaire (Y-OQ; Burlingame et al., 1996; Burlingame et al., 2001) before each therapy session. Completion of the Y-OQ generally takes approximately 5-10 minutes. The Youth Outcome Questionnaire-2.01 (Y-OQ; Burlingame et al., 2001; Burlingame, Wells, Lambert, Cox, & Maruish, 2004; Burlingame et al., 2005) is a parent-report measure designed to be sensitive to changes in client (ages 4–17) psychological functioning over time (Burlingame et al., 2001; McClendon et al., 2011). Results from this measure give a total score and six individual subscale scores identifying a number of emotional and behavioral problems. The total score is calculated by summing the six scales and is indicative of overall psychological distress. It consists of 64 items rated on a 5-point Likert scale: 0=Never, 1=Rarely, 2=Sometimes, 3=Frequently, 4=Almost always. Scores range from -16 to 240, with higher scores indicating greater distress. The utility of the Y-OQ has been demonstrated by previous research (Burlingame et al., 2004). The total score provides the highest estimates of reliability with an excellent level of internal consistency (Cronbach's alpha

= .97) and a 6-week test-retest reliability of .76 (Burlingame et al., 2004). Estimates of reliable change suggest that it has been made if an individual's total Y-OQ score has changed by at least 13 points (Burlingame et al., 2005).

The Youth Outcome Questionnaire Self-Report (Y-OQ-SR) is a parallel version of the Y-OQ designed to be completed by adolescent clients (ages 12 – 18). This simplified version takes approximately seven minutes to complete (Wells, Burlingame, Lambert, Hoag, & Hope, 1996). Test-retest reliability ($r = .89$) and internal consistency (.95) estimates are similar to its counterpart. It has also revealed concurrent criterion validity when compared to other youth self-report measures, such as the CBCL and Behavior Assessment System for Children, Second Edition (BASC-2), with “excellent validity” (Burlingame et al., 1996; Ridge, Warren, Burlingame, Wells, & Tumblin, 2009). Y-OQ and Y-OQ-SR total scores were used for tracking client outcomes during the study.

Data obtained from Y-OQ and the Y-OQ-SR was automatically uploaded into the OQ®-Analyst software program. The OQ®-Analyst charts client progress on a session-by-session basis. Algorithms within the software program compare the client's change trajectory to that of baseline change trajectories collected during measure development. Empirical assessment of this algorithm indicated that it had a high “hit rate” for identifying youth clients who deteriorated during treatment (77%; Bishop et al., 2005). At each administration of the Y-OQ, clients are assigned one of four alerts from the OQ®-Analyst based on their change trajectory (Whipple et al., 2003). These alerts include a) White alert: client is functioning in the normal range, b) Green alert: client rate of change is adequate, c) Yellow alert: client rate of change is less than adequate, and d) Red alert: client is not making expected progress. Client is at risk for treatment failure. Clients who receive yellow or red alerts are considered to be NOT in therapy.

Treatment Support Measure. The Treatment Support Measure (TSM) is a measure designed to assess important areas of functioning for both parents and youth. The TSM consists of two forms, a parent and a youth form. The TSM-P is a 40-item parent/guardian report measure that consists of items aimed at assessing parenting self-efficacy, parent social support, parenting skills, parent distress, and the parent's perception of the therapeutic alliance. The TSM-Y is a 40-item youth self-report measure (for ages 12-17) that consists of items aimed at assessing youth self-efficacy, youth social support, youth motivation for treatment, and the youth's perception of the therapeutic alliance. Both versions of the TSM utilize a Likert scale to measure parent and youth perceptions of problems (e.g., 1) strongly disagree, 2) slightly disagree, 3) neutral, 4) slightly agree, and 5) strongly agree). Reliability estimates from a community sample of 189 parents of youth aged 4-17 and 120 youth aged 10-17 yielded overall 4-week test-retest reliability coefficients for the TSM-P and TSM-Y measures to be estimated at .92 and .91, respectively. Subscale alpha estimates ranged from .77 to .89 for the TSM-P and from .84 to .88 for the TSM-Y. Preliminary research on TSM items has demonstrated sensitivity to change (Warren et al., 2008).

Therapist Questionnaire Scale. The Therapist Questionnaire is a six-item questionnaire that was created for this study. Its purpose is designed to evaluate the degree to which therapists feel that they had a comprehensive and detailed understanding of their client's functioning at the beginning of treatment. The first five items are scored on a five-point Likert scale (i.e., (2) strongly agree, (1) agree, (0) neither agree nor disagree, (-1) disagree, (-2) strongly disagree). The sixth item is a simple dichotomous response (Yes/No). The first four items make up the reported scale of the TQ and were summed to create a TQ Total Composite score. The range of the scale is between -8 and 8. Each question is listed below:

1. I had a thorough understanding of my client's functioning at the beginning of treatment.
2. I felt like I had all of the information needed to make a comprehensive treatment plan.
3. I had a detailed understanding of important areas that impacted my client's functioning (e.g., social support, self-efficacy) at the beginning of treatment.
4. I utilized information obtained at the beginning of treatment to identify additional areas of intervention beyond my client's primary concerns (e.g., increasing social support, improving parenting skills, addressing client motivation).
5. Having access to TSM data at the beginning of treatment was helpful to me.
6. I feel that my patient dropped out of therapy prematurely (i.e., in my opinion, my patient did not obtain their goals for therapy). Or, if your client is still in therapy, I feel that my client is not on track to meet their goals for therapy. *Yes/No*

Procedures

To examine the effectiveness of providing TSM feedback to therapists during the treatment planning phase, a longitudinal design was employed. A longitudinal design allowed us to track client change on a session-by-session basis to evaluate whether utilizing the TSM as a treatment planning tool 1) increases the rate of client improvement in therapy, 2) prevents clients from going off track (i.e., NOT) during the early stages of treatment and 3) reduces the number of clients who terminate therapy prematurely. We also utilized the Therapist Questionnaire to evaluate the differences between the TSM-FB group and the Non-FB group on the degree to which therapists feel that they had a comprehensive and detailed understanding of their client's functioning at the beginning of treatment.

Therapist procedure. Prior to beginning data collection, therapists at each location were invited to participate in the study at a weekly in-service meeting. This in-service meeting

consisted of training in the use of the TSM and Y-OQ (e.g., logistics of the software program, how to review/interpret results, ways they can be used for treatment planning). Following the training, therapists were invited to become participants in the study. Therapist participants who agreed to participate in the study signed an informed consent document (See Appendix) and were subsequently notified once client participants were recruited into the study. On average, therapist participants had approximately 4.41 study clients in their caseload. The range of study clients in each therapist's caseload varied from one to eighteen. Each client who agreed to participate in the study was then randomly assigned to one of the two conditions in the study—the TSM-FB condition and the Non-FB condition.

When therapists had clients assigned to them who were in the TSM-FB condition, they received TSM (age appropriate TSM; i.e., age 4-11 TSM-P, age 12-17 TSM-P and TSM-Y) and Y-OQ feedback regarding their clients via the OQ®-Analyst software program prior to their intake appointment. This feedback was printed off and given to therapists at each intake session. Clients completed the age appropriate TSM and Y-OQ 98% of the time. However, data entry errors and problems inputting the data into the server led to nine percent of the data not being provided to the therapist. At each subsequent session, therapists electronically received Y-OQ data regarding the progress of their clients in therapy. If the OQ®-Analyst software program detected that a participant was not on track (NOT) for a good therapy outcome, participants then completed an additional TSM at that therapy session. This occurred 23 times in the TSM-FB condition and 13 times in the Non-FB condition. This information was also provided to therapists electronically or by paper copy at the following session. Forty-seven percent of clients who returned to therapy after becoming NOT completed the TSM. Treatment then continued as usual with data being systematically collected and provided to therapists at each therapy session.

When clients terminated therapy or three months after treatment began (whichever came first), therapists were emailed the Therapist Questionnaire Scale (TQ) to complete regarding their client.

When therapists had clients assigned to them who were in the Non-FB condition, therapists engaged in treatment-as-usual with their clients. However, therapists were not given access to the feedback generated from the Y-OQ or TSM. When clients terminated therapy or three months after treatment began (whichever comes first), therapists were emailed an abbreviated version of the Therapist Questionnaire Scale (TQ) to complete regarding their client. The abbreviated version did not include items five as it is directly related to the TSM—a measure they did not have for clients in the Non-FB condition. As compensation for participating in this study, therapists received \$10 for agreeing to participate in the study. Likewise, they received an additional \$10 for every TQ they completed.

Client procedure. Utilizing a standardized script to explain the purpose and details of the study, research assistants approached clients at their intake session and invited them to participate in the study. Clients who consented to participate in the study completed the informed consent and assent documents, as well as an assessment battery consisting of age appropriate versions of the TSM and Y-OQ prior to the first therapy session. The assessment battery required approximately 15 minutes of time to complete. Clients were then randomized into one of two conditions—a TSM feedback condition (TSM-FB) and a Non-FB condition.

Clients in both conditions then completed the Y-OQ at each subsequent visit. This procedure was part of the routine clinical practice at each participating site. However, a therapist only received TSM and Y-OQ feedback if their client was assigned to the TSM-FB condition. Therapists in the Non-FB condition did not receive TSM or Y-OQ feedback. Client progress in

therapy was then tracked by the Y-OQ's internal algorithm which has shown high success at identifying clients at risk for poor outcomes in therapy. Client Y-OQ data was then tracked until clients discontinued treatment. After clients discontinued therapy (or at six months), the TSM was electronically administered to participants in each condition. As compensation for participating in this study, youth clients and their parent each received \$10 for completing the initial survey data. Likewise, they received another \$10 for completing the TSM post-test.

The majority of participants in the study had therapy appointments on a weekly basis. However, differences in client needs, therapist availability and therapy goals led to wide variability in the frequency of sessions. The therapists providing treatment in these settings included interns, therapists and psychologists. A wide range of therapeutic approaches were employed including cognitive-behavior therapy, psychodynamic therapy, client-centered therapy, and child-centered play therapy. Therapists were encouraged to engage in treatment-as-usual and to incorporate TSM and Y-OQ feedback into their interventions when clients were in the feedback session. Data was collected over the course of 16 months.

Analysis

Given the randomized design of this study, t-tests were utilized to evaluate the effectiveness of the randomization on initial scores of the dependent variables (the Y-OQ and Y-OQ SR). It is critical to note that there was a statistically significant and clinically significant difference between initial Y-OQ scores for the TSM-FB condition ($M = 61.55$, $SD = 3.48$) and the Non-FB condition ($M = 74.30$, $SD = 4.31$), $t = 2.31$, $p = .02$. Contrastingly, an independent samples t-test identified no significant difference on initial Y-OQ SR scores between the TSM-FB condition ($M = 72.19$, $SD = 5.48$) and the Non-FB condition ($M = 68.81$, $SD = 7.12$), $t = -.38$, $p = .70$. Due to the differences at intake on the Y-OQ, the primary dependent variable in the

study, conclusions cannot be drawn for the three hypotheses (Hypotheses 1, 2 and 4) that are dependent upon this data. As such, some exploratory analyses were conducted but conclusions are not drawn from this data which is flawed by the failure of the randomization.

A longitudinal design with multilevel modeling (MLM) was utilized to systematically collect client data over the course of therapy (Bryk & Raudenbush, 1987; Shin, 2007). MLM is superior to other growth modeling techniques because it is best equipped to handle participants with missing or incomplete data—a common problem among data collected in community mental health organizations (Shin, 2007). This is because MLM techniques do not assume that each participant has an equal number of observations. Likewise, there is no assumption that observations are conducted at equidistant time points (i.e., the analysis allows for uneven spacing between time points). As such, MLM allows for more comprehensive analyses because it does not exclude data that could be meaningful (e.g., missing data in patterns, etc.).

The combination of a longitudinal model with the use of MLM is a vast improvement over pre-post designs that only evaluate for linear change. Pre-post designs are not capable of evaluating individual change trajectories or accounting for non-linear change. Contrastingly, MLM analyses allowed us to compare models of non-linear change, evaluate individual change trajectories, and account for covariates and moderators of change on a session-by-session basis. The statistical program Stata 14 SE (StataCorp, 2015) was utilized to model the multilevel analyses.

Based on recommendations from experts in multilevel modeling, a bottom-up procedure was utilized in creating the model (Hox, 2010). This first involved analyzing the overall model with no explanatory variables (i.e., do participants improve over the course of therapy in general). We then added a group-level explanatory variable to test our primary hypothesis that

condition assignment would moderate client change trajectories. Additional lower-level and then group-level explanatory variables (i.e., confounding variables) were added to the model and either discarded or kept depending on whether they improved the fit of the overall model. Improved fit was determined by utilizing the Bayesian Information Criterion (BIC). Cross-level interactions between explanatory group-level variables as well as individual-level explanatory variables were also evaluated for significant slope variations. The final models are included for review in the results.

Results

Hypothesis 1: Y-OQ Rate of Change, TSM-FB vs. Non-FB Condition

An exploratory multilevel model was utilized to evaluate whether the rate of change for Y-OQ scores differed between the TSM-FB condition and Non-FB condition over the first five sessions of treatment. The intake Y-OQ score was added as a covariate to the model in attempt to account for initial differences between the two conditions. Session one data was removed to eliminate the perfect correlation between session one and the covariate. As such, the intercept predicted the second session of treatment rather than the intake. However, as previously noted, the failure of the randomizations precludes meaningful interpretation of the model.

The Y-OQ was set as the dependent variable with a series of grouping variables and covariates evaluated. Main effects were calculated for condition assignment and length of time in therapy. Grouping variables included in the study were location and therapist. Client age and gender were also controlled for by setting them as covariates in the model. Only primary predictors were included in the final model (See Table 2).

Table 2

Y-OQ Hypothesized Change Trajectory Model: Fixed Effects

Fixed effects	Intercept		Slope (interaction w/Session)	
	Estimate	SE	Estimate	SE
Intercept ^a	71.61*	5.60	-3.90	1.36
TSM-FB Condition	-13.07*	6.69	3.33	6.69
Age	-.85	.50		
Gender	-2.88	2.98		
Intake	.83*	.07		
Intake X TSM-FB Condition	-.20*	.09		

Note. Session = number of sessions in treatment; *SE* = standard error, Gender = female; Intake = initial Y-OQ score. The Age and Intake variable were centered on the grand mean.

^a Estimates for the intercept parameter reflect the mean intercept and slope for the non feedback condition and was utilized as the reference group. Estimates for all other parameters are deviations from the intercept constant. This model was parsed down to hypothesized main effects and significant covariates.

* $p < .05$.

The results of the exploratory multilevel analysis for the Y-OQ change trajectory indicated that there was no difference in the rate of change between the TSM-FB condition and the Non-FB condition on Y-OQ scores ($z=1.92, p = .06$). A visual demonstration of change trajectories between the TSM-FB condition and Non-FB condition are modeled in Figure 1. For every session, participants in the Non-FB condition improved (dropped) by 3.90 points on the Y-OQ. Contrastingly, the rate of change for the TSM-FB condition was slower as participants improved by .57 points on the Y-OQ. However, these findings are moderated by the significant main effect of the intake Y-OQ score which was accounted for in this model ($z = 12.32, p < .001$). An interaction effect was also observed between condition assignment and intake Y-OQ scores ($z = -2.11, p < .05$). For every 1 point increase in intake Y-OQ scores above the mean, participants in the Non-FB condition experienced an average drop in their Y-OQ of .17 on top of

the effect of all other variables. Contrastingly, participants in the FB condition experienced an average drop of .37 points for every 1 point increase in intake Y-OQ score in addition to the effect of all other variables being held constant. These findings further support the decision to not interpret the model because of the significant impact of the failed randomization (inequality of intake Y-OQ scores) on the model. A random sample of individual change trajectories is included for review (See Figure 2).

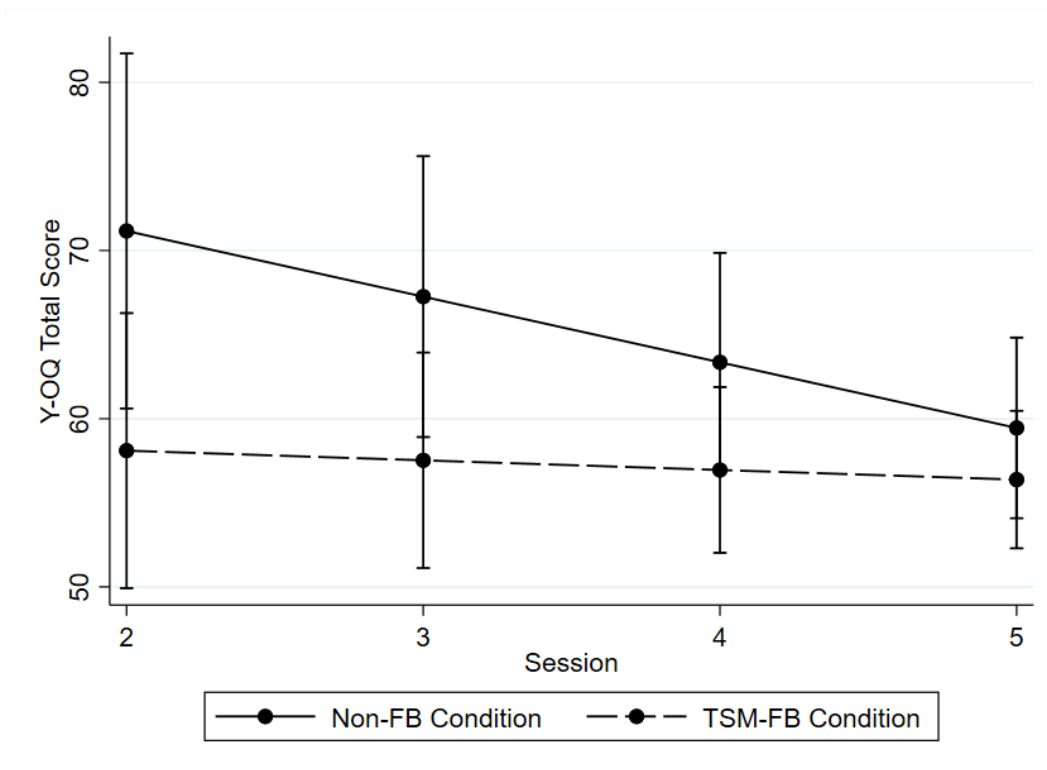


Figure 1. This figure models the estimated change trajectory of the TSM-FB condition and Non-FB condition on the Y-OQ over the first five sessions of therapy.

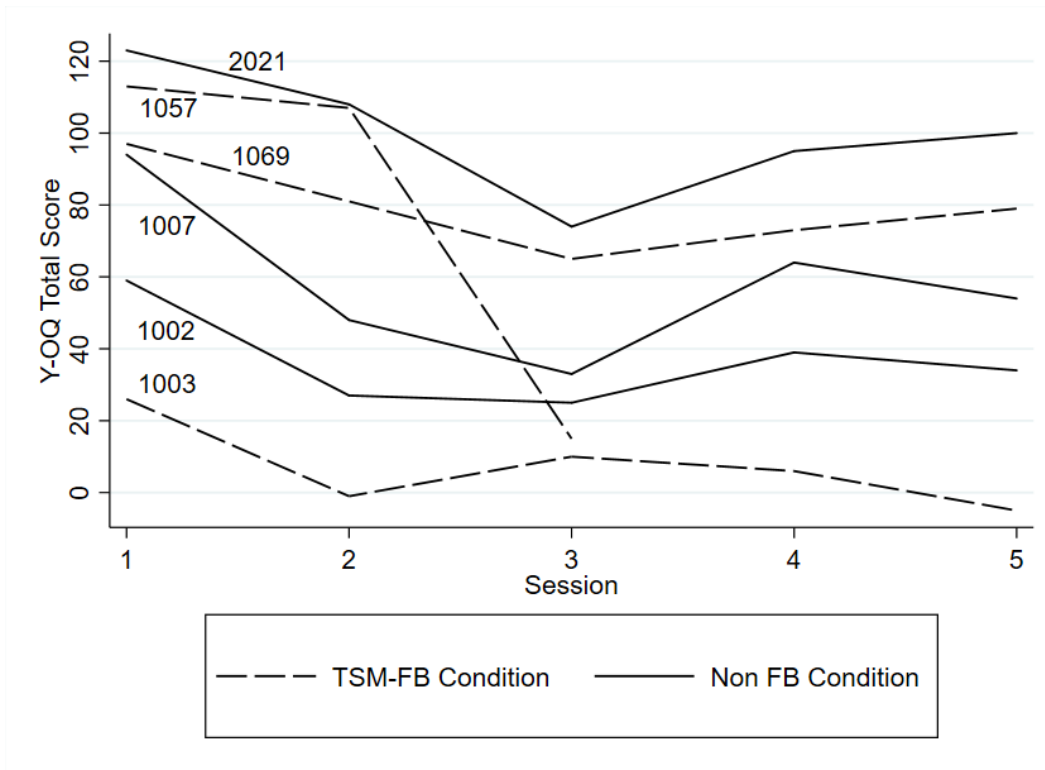


Figure 2. This figure models a random sample of individual change trajectories of participants in the TSM-FB condition and Non-FB condition over the first five sessions of therapy.

An Intraclass Correlation Coefficient (ICC) was calculated for the Y-OQ model (Table 3). The ICC allows us to calculate the proportion of variance in Y-OQ scores that is accounted for by the random effects in the model. In this study, the ICC provides an estimate of the proportion of total variance in scores that is accounted for by therapist effects, between person differences and the portion of within-person variance that is due to change over time. We found that 84.9% of the variance occurred between clients, 6.3% occurred between therapists and 8.3% occurred within clients.

Table 3

Y-OQ Hypothesized Changed Trajectory Model: Random Effects

Random effects	Intercept		Slope (interaction w/Session)		ICC
	Estimate	SE	Estimate	SE	
Between clients	159.80*	102.62	.56*	1.66	.85
Between therapists	21.36*	23.22			.07
Within clients (residual)	200.28*	21.54			.08

Note. *Session* = session number. * $p < .05$.

A second multilevel model was also created to compare differences in rate of change on the Y-OQ SR. As noted previously, there was no significant difference in intake Y-OQ SR scores between conditions. Across conditions, participants experienced significant improvement in their symptoms over the course of therapy. However, contrary to our first hypothesis, there was no significant difference between the change trajectories in the TSM-FB and the Non-FB Condition ($z = .63, p = .53$). For every session attended, participants in the Non-FB Condition experienced a 5.84 unit drop in their Y-OQ SR scores. Similarly, participants in the TSM-FB condition experienced a 5.62 unit drop in their Y-OQ SR symptoms. Figure 3 depicts estimated change trajectories for participants in both conditions on the Y-OQ SR. There was no main effect for condition assignment or interaction between any other variable and condition assignment (See Table 4). However, there was a significant effect of youth age that was controlled for in the model. For every increasing year in age above the mean, a participant's Y-OQ SR score rose by 6.23 points—holding all other variables constant.

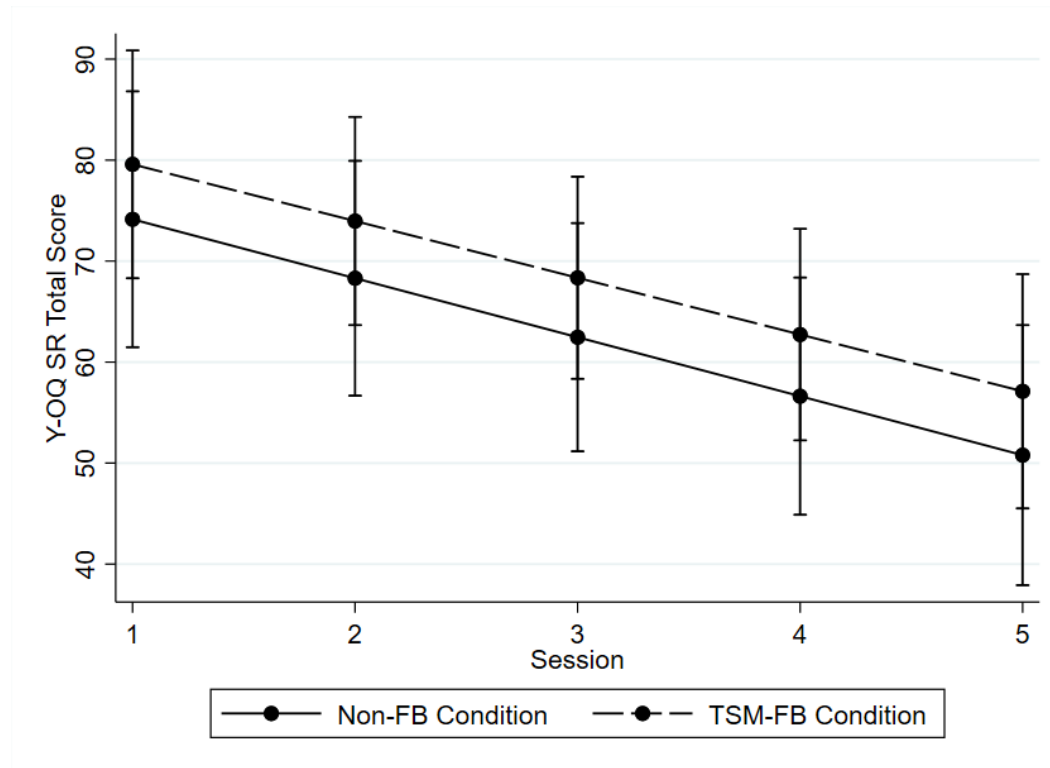


Figure 3. This figure models the estimated change trajectory of the TSM-FB condition and Non-FB condition on the Y-OQ-SR over the first five sessions of therapy.

Table 4

Y-OQ SR Hypothesized Change Trajectory Model: Fixed Effects

Fixed effects	Intercept		Slope (interaction w/Session)	
	Estimate	SE	Estimate	SE
Intercept ^a	76.04*	7.19	-5.84*	1.52
TSM-FB Condition	5.44	8.65	.22	2.08
Age	6.27*	2.05		
Gender	-6.83	7.19		

Note. *Session* = session number; *SE* = standard error. The Age variable was centered on the grand mean.

^a Estimates for the intercept parameter reflect the mean intercept and slope for the non feedback condition and was utilized as the reference group. Estimates for all other parameters are deviations from the intercept constant. This model was parsed down to hypothesized main effects and significant covariates.

* $p < .05$.

An ICC was also calculated for the Y-OQ SR model (Table 5). The ICC provides an estimate of the proportion of total variance in scores that is accounted for by between person differences and the portion of within-person variance that is due to change over time. We found that 92.6% of the variance occurred between clients and 7.4% occurred within participants. The results of this model did not support our first hypothesis.

Table 5

Y-OQ SR Hypothesized Changed Trajectory Model: Random Effects

Random effects	Intercept		Slope (interaction w/Session)		ICC
	Estimate	SE	Estimate	SE	
Between clients	966.26*	222.69	30.33*	15.32	.93
Between therapists	-.01	.01			
Within clients (residual)	172.60*	32.42			.07

Note. Session = session number. * $p < .05$.

Hypothesis 2: Overall Y-OQ Change Scores

A set of exploratory independent samples t-test with intent-to-treat analyses were conducted on the overall change scores over the first five sessions of therapy for the TSM-FB condition and Non-FB condition. However, causal conclusions cannot be drawn from the first analysis due to the significant differences between intake Y-OQ scores. One hundred and sixty-four participants provided initial Y-OQ data with 98 participants in the TSM-FB condition and 64 participants in the Non-FB condition. The result of this analysis indicated that there was no significant difference in overall Y-OQ change scores over the first five sessions between the TSM-FB condition ($M = 6.38$, $SD = 1.99$) and Non-FB condition ($M = 6.13$, $SD = 1.86$), $t(162) = .09$, $p = 0.93$.

The second independent samples t-test was conducted on sixty-two adolescents in the study who had completed the Y-OQ SR during intake. Thirty-six participants were in the TSM-FB condition and 26 participants were in the Non-FB condition. The result indicated that there was no significant difference in overall Y-OQ SR change scores over the first five sessions between the TSM-FB condition ($M = 16.06$, $SD = 3.51$) and Non-FB condition ($M = 19.81$, $SD = 6.73$), $t(60) = .53$, $p = 0.60$. The results of the Y-OQ SR analysis did not support our hypothesis that there would be a greater overall change in Y-OQ SR scores over the first five sessions for the TSM-FB condition compared to the Non-FB condition.

Hypothesis 3: Therapist Report of PT

A 2X2 Chi-square test of association was utilized to detect differences between the TSM-FB condition and the Non-FB condition on rates of PT as identified by the participant's therapist. Seventy-seven percent of the TQ surveys sent were returned which included 72 surveys (of 89) from the TSM-FB condition and 45 surveys (of 62) from the Non-FB condition. There was no difference in the percentage of surveys completed in the TSM-FB condition (80.99%) and Non-FB condition (72.58%). A single item on the TQ was utilized to determine if therapists felt that their client had discontinued therapy prematurely (de Haan et al., 2013). Therapists whose clients were in the Non-FB condition reported that their clients dropped out of therapy prematurely 42% of the time. Similarly, 40% of therapists whose clients were in the TSM-FB condition reported that their clients dropped out of therapy prematurely. The Pearson Chi-Square indicated that there was no statistically significant association between condition assignment and reports of PT, $\chi^2(1, N = 117) = 0.04$, $p = 0.84$. These results did not support our fourth hypothesis.

While not a formal hypothesis, it is noteworthy that there was a significant difference in PT rates when utilizing a session length definition (de Haan et al., 2013). For the session length criterion, individuals who attended a single session were identified as having terminated therapy prematurely and were dummy coded as “1.” Participants who remained in therapy for more than one session were dummy coded as “2.” A 2X2 Chi-square test of association was utilized to account for differences in the session length definition of PT. Twenty-five percent of individuals in the Non-FB Condition terminated therapy prematurely while 13% of participants in the TSM-FB Condition terminated therapy prematurely. The Pearson Chi-Square indicated that there was a statistically significant association between condition assignment and reports of PT, $\chi^2 (1, N = 186) = 4.33, p < .05$.

Hypothesis 4: OQ®-Analyst Alerts

An exploratory 2X2 Chi-square test of association was utilized to detect differences between condition assignment and NOT status over the first five sessions of therapy. Participants who alerted at any time during the first five sessions of therapy were identified as being NOT on track in therapy and were dummy coded as “1.” Participants who never “alerted” during the first five sessions of therapy were identified as OT and dummy coded as “0.” Similar to the first two hypotheses, the results of this analysis are likely impacted by the significant difference in Y-OQ scores at intake. As such, meaningful conclusions cannot be drawn from this analysis. Thirteen out of 77 participants (16.88%) in the Non-FB condition alerted in the first five sessions and 23 out of 109 participants (21.01%) in the TSM-FB condition alerted. The Pearson Chi-Square indicated that there was no statistically significant association between condition assignment and client status over the first five sessions of treatment, $\chi^2 (1, n = 186) = 0.51, p = 0.47$.

Hypothesis 5: Therapist Questionnaire (TQ)

It was hypothesized that therapists in the TSM-FB condition would have a more comprehensive and detailed understanding of their client's functioning at the beginning of treatment when compared to therapists in the Non-FB condition. It was suspected that this would be due to the enriched data therapists would have access to through the TSM. The parents of all clients in the study completed the TSM Parent while youth over the age of 12 also completed the TSM Youth questionnaire. Table 6 and Table 7 provide a breakdown of the specific domains measured and the number of alerts generated for each domain by condition assignment at the first session of therapy. It is important to note that almost 55% of clients in the TSM-FB condition did not receive an alert at their intake session. This suggests that there would be no actionable information provided by the OQ®-Analyst to therapists in the TSM-FB condition. As such, this may have impacted the perception of the usefulness of the TQ.

Table 6

TSM Alerts at Intake Therapy Session for TSM-FB Condition

	Alert Status			
	Alerted	Not Alerted	Total Alerts	Alert %
TSM Parent Domain	45	56	101	44.55%
Parent Distress	29	72	101	28.71%
Parent Social Support	29	72	101	28.71%
Parenting Self-Efficacy	32	39	101	31.68%
Parenting Skills	25	76	101	24.75%
TSM Youth Domain	18	20	38	47.34%
Youth Motivation	10	28	38	26.32%
Youth Self-Efficacy	12	26	38	31.58%
Youth Social Support	10	28	38	26.32%

Note. This table provides the raw data for percentage of TSMs which alerted at the intake session for the TSM-FB Condition.

Table 7

TSM Alerts at Intake Therapy Session for Non-FB Condition

	Alert Status			
	Alerted	Not Alerted	Total Alerts	Alert %
TSM Parent Domain	42	30	72	58.33%
Parent Distress	17	55	72	23.61%
Parent Social Support	23	49	72	31.94%
Parenting Self-Efficacy	16	56	72	22.22%
Parenting Skills	16	56	72	22.22%
TSM Youth Domain	16	12	28	57.14%
Youth Motivation	4	24	28	14.29%
Youth Self-Efficacy	15	13	28	53.57%
Youth Social Support	13	15	28	46.43%

Note. This table provides the raw data for percentage of TSMs which alerted at the intake session for the Non-Feedback Condition.

Therapists in both conditions completed the TQ and TQ Total Composite scores were generated to assess therapist's self-reported understanding of their client's functioning at the beginning of treatment. The TQ Total Composite score was calculated by summing the transformed scores of the first four items of the TQ. The TQ Total Composite provides an estimate of the self-reported understanding a therapist has of their client's functioning at the beginning of treatment. Higher scores indicated a more comprehensive and thorough understanding of client functioning. An independent samples t-test was utilized to determine if there were differences in overall TQ scores based on condition assignment. The result indicated that there was no significant difference between overall TQ scores between the TSM-FB condition ($N = 72$, $M = 3.89$, $SD = 0.30$) and Non-FB condition ($N = 45$, $M = 3.38$, $SD = 0.45$), $t(115) = -.99$, $p = 0.32$. A breakdown of the individual items on the TQ is included below (See Table 8).

Table 8

Average Responses to TQ Items by Condition

Condition	TQ Total	Item 1	Item 2	Item 3	Item 4
TSM-FB Condition	3.89 (.30)	.97 (.08)	.94 (.10)	.96 (.09)	1.01 (.09)
Non-FB Condition	3.38 (.45)	.78 (.12)	.69 (.15)	.93 (.12)	.98 (.14)

Note. The TQ Composite Total score is made by summing the first four items of the TQ. Each item is scored on a five-point Likert scale (i.e., (2) strongly agree, (1) agree, (0) neither agree nor disagree, (-1) disagree, (-2) strongly disagree). There were no differences in average responses between conditions for any item on the TQ. See Appendix E for individual TQ items.

Hypothesis 6: TSM Usefulness

The final hypothesis is focused on the therapist's experience of how useful the TSM is for treatment planning purposes. Each therapist responded to the question "Having access to TSM data at the beginning of treatment was helpful to me." A Likert scale response was provided for this question. Seventy-two responses were recorded with the following response pattern: disagree (10%), neither agree nor disagree (50%), agree (35%) and strongly agree (5%).

Discussion

No studies have evaluated the effectiveness of providing feedback to clinicians on important youth variables during treatment planning. The existing literature indicates that a number of key variables (e.g., treatment motivation, social support, and self-efficacy) are correlated with good psychotherapy outcomes for youth clients (Merrill et al., 2017; O'Connell et al., 2015; Woolfson et al., 2011). This study was designed to evaluate the effectiveness of providing feedback to therapists on important client variables at the intake session via the TSM, a CST. A key aspect of this study was its implementation in the context of a community mental health setting, where treatment commonly occurs and is historically difficult to replicate efficacy studies. A longitudinal, multilevel design was utilized to evaluate change trajectories over the

first five sessions of therapy. However, the results of this study are impacted by a failure of the initial randomization to produce similar intake scores on the primary dependent variable. As such, the statistically and clinically significant difference between the two conditions at intake makes it impossible to draw meaningful conclusions between conditions on alert status, rate of change or overall change on the Y-OQ.

Past studies in the youth and adult psychotherapy literature have supported the use of CST when clients are identified as being NOT through ROM (Bickman et al., 2011; Shimokawa et al., 2010). For example, in Bickman et al.'s (2011) seminal study with youth clients, a modest effect was found for clients whose therapist had access to weekly feedback. This effect was even stronger when controlled for by the number of times a clinician actually viewed the feedback. Bickman et al.'s (2011) findings also mirror a wealth of previous research with adult clients which has supported the use of CST when clients are identified as being at-risk for treatment failure (Gondek, Edbrooke-Childs, Fink, Deighton, & Wolpert, 2016; Lambert, 2007). However, a key distinction between their studies and this study is the use of the CST for treatment planning rather than as a support tool when clients are identified as being at-risk for treatment failure. While the failure of the initial randomization eliminates the possibility of drawing conclusions regarding several of our hypotheses, we can interpret, with caution, findings related to premature termination and the Therapist Questionnaire.

The results of this study provided mixed results regarding a reduction in PT between TSM-FB and Non-FB conditions. When asking therapists if they felt that their clients terminated prematurely, there was no difference between conditions. However, there was a lower percentage of clients in the TSM-FB condition (13%) who attended only one session compared to the Non-FB condition (25%). One possible reason for this difference could be due to the

amount of information that a therapist has regarding the client's characteristics, strengths and weakness. It may be that this data allowed therapists to more easily target areas of concerns from the beginning of treatment. Such focused treatment may have inspired more clients in the FB condition to return to treatment following an initial session. However, replication of these results and targeted evaluation of what mediates these outcomes is necessary before coming to meaningful conclusions.

Another key focus of this study was the overall usefulness of the TSM for treatment planning purposes. We proposed that therapists who had access to the TSM would report having a more complete and comprehensive understanding of their client's functioning at the beginning of treatment. The results of the composite score on the TQ did not provide evidence to support this hypothesis. However, it is critical to note that over 55% of cases in the TSM-FB condition did not receive directed treatment interventions as specified by the OQ®-Analyst. This disproportionately high number of no alerts (compared to only 38% of cases in the Non-FB condition) may be due to the lower overall distress reported in the FB condition. Interestingly, fifty percent of therapists in the TSM-FB condition responded neutrally to whether or not they felt that TSM feedback was useful for treatment planning. It may be that the fifty percent of therapists who "neither agreed nor disagreed" that the TSM was useful for treatment planning did not receive directed treatment recommendations during treatment planning. As such, the fact that over 40% of therapists agree (or strongly agree) that this tool is useful for treatment planning may suggest that therapists who receive targeted recommendations for treatment may value this treatment planning tool in their practice. Likewise, it should be noted that only a small minority (10%) of therapists found it to not be helpful in their treatment planning.

In the broader psychotherapy outcome literature, this study was the first of its kind to evaluate the use of a CST for treatment planning with youth clients. Past research has supported the use of CST when clients are identified as being at-risk for treatment failure (Shimokawa et al., 2010). In these situations, therapists are provided CST feedback on important areas of client functioning that are known to effect treatment (e.g., motivation, social support, self-efficacy). This study followed the recommendations of the APA's Presidential Task Force on Evidenced-based Practice in Psychology which recommended that these areas be evaluated during the treatment planning phase of therapy. As noted previously, a significant minority of therapists in our study reported feeling that this information was helpful to them during treatment planning. While the majority of our results were inconclusive due to a failure of the initial randomization, the recommendations of the task force are clear that evaluating these areas during treatment planning is a critical component of evidenced-based practice.

Experts in the area of treatment planning indicate that treatment planning is a complex clinical process that requires the integration of data obtained from clinical assessments, interviews, and referral sources to make accurate conceptualizations and diagnoses of their clients (Jongsma et al., 2014). These conceptualizations guide therapists in the selection of empirically supported treatments (EST) to utilize with their clients (APA, 2006). However, critics of the EST movement note that even the best researched treatments have a significant minority of clients (about 25%) that do not show improvement in treatment (Barlow, 2004; Weisz, Hawley, & Doss, 2004). As such, they recommend that clinical judgement be utilized to identify clients who may have unique characteristics (e.g., low motivation for treatment) that would preclude the use of usual treatment options (Shapiro, 2009).

However, researchers have historically found that therapists are poor predictors of clients who will ultimately end treatment without making expected progress (Hannan et al., 2005; Salisbury, 2014). Many possible reasons could account for these poor outcomes (e.g., misdiagnosis, infidelity to treatment models, etc.). However, this problem may be due, in part, to difficulty identifying client characteristics that may moderate the effectiveness of existing EST. Just as therapists in this study received TSM feedback with recommended interventions on important client variables related to treatment outcomes, therapists in real world settings can utilize treatment planning tools such as the TSM to assist them in identifying areas of concern or weakness that may necessitate changes in treatment approach. Therapists can then utilize their clinical judgement to make decisions regarding their client's treatment that is enhanced by TSM data during treatment planning. It is expected that the combination of feedback from treatment planning tools and clinical judgment will lead to enhanced treatment planning and overall improvements in client functioning.

Limitations

While this study provides important information regarding the usefulness of TSM feedback at the beginning of treatment, several limitations warrant discussion. First, in spite of random assignment to condition, the TSM-FB condition and Non-FB condition differed significantly in intake Y-OQ scores. The mean Y-OQ score for clients in an outpatient psychotherapy setting is 78.7. While the Non-FB condition's initial Y-OQ scores were consistent with outpatient normative data, the TSM-FB condition was approximately 16 points below the normative data on their initial Y-OQ scores. As such, it seems likely that a regression to the mean would occur in which the overall rate of change would appear much shallower in the

TSM-FB condition. This anomaly eliminates the ability to draw conclusions on data related to the primary dependent variable.

A related limitation is that the percentage of clients who became NOT in therapy was significantly lower in this study (19%) than in past studies (33%; Warren et al., 2010). Two primary reasons could account for these differences. First, the significant difference in initial Y-OQ scores likely impacted the amount of clients who became NOT in therapy. Likewise, the low number of NOT clients in this study may be due, in part, to the fact that this study was limited to evaluating the first five sessions of therapy. Given the low level of total alerts, it is likely that the effectiveness of the CST was mitigated by the fact that a majority of clients (approximately 81%) remained on track during the first five sessions of treatment.

Consideration should also be taken for the use of an unstandardized measure (TQ) where no prior validity reliability estimates exist (Hannan et al., 2005). The lack of standardization limits the conclusions that can be drawn from this measure. It would have been preferable and more statistically sound to have established the psychometric properties of this questionnaire prior to its use in the current study.

It is also relevant to note that the respondent for the Y-OQ was not always consistent from week to week. Approximately 12% of the participants had a possible change in respondent during the study. This information was based on data pulled directly from the OQ®-Analyst. Some of the changes were clear such as switching between a “father” respondent and a “mother” respondent. Other cases were less clear as the respondent would change from “foster mother” to “mother” or “guardian” to “other.” While we cannot be certain how many participants had a true change in respondents during study, it is likely that any change would lead to differing results on

the overall trend and trajectory of treatment. Likewise, it may have affected the type of alerts therapists received on a session-by session basis.

Lastly, this study was conducted in the context of a community mental health setting that has implemented ROM through the use of the Y-OQ for many years. A number of therapists participating in the study expressed concern with not having access to the tool. They noted that many of their treatment objectives are directly tied to subscales on the Y-OQ. Furthermore, they reported substantial reliance on the Y-OQ to identify risks for self-harm or other critical behaviors. As a result of these concerns, therapists were encouraged to ask their clients about any critical items directly. Given this information, it seems likely that therapists in this setting would naturally incorporate feedback into their practice despite being assigned to a Non-FB condition.

Implications and Future Research

This was the first study to examine the effectiveness of providing therapists important data on client variables through the use of a CST at the beginning of treatment. While the results of this study did not indicate any added effectiveness in the rate of change over the first five sessions of treatment, our results do suggest that therapists perceive this tool as being useful in their treatment planning. Such findings are particularly salient given the small proportion of clients that experienced an alert on the TSM at the beginning of treatment. This suggests that it may be clinically useful for therapists to identify whether specific areas of interest require additional intervention from the first session of therapy. When “non-alerts” occur, therapists can utilize this information as an indicator that a specific domain may not require immediate attention or can be tabled to a later session. In general, this valuable information can be a tool to assist therapists in “honing in” on specific treatment targets.

Future studies are encouraged to continue evaluating the usefulness of CST tools at early stages of treatment. While this study did not indicate that the use of CST tools led to a greater overall change or faster rate of change in outcome measures, these findings are tempered by significant differences in OQ scores at intake between conditions. The wealth of past research indicating the effectiveness of similar tools in youth and adult populations suggests that these tools warrant additional investigation (Bickman et al., 2011; Gondek et al., 2016; Shimokawa et al., 2010).

Gondek et al.'s (2016) systematic review of feedback tools on treatment effectiveness revealed that the majority of studies with adults have found an enhanced treatment effectiveness for clients whose therapist received feedback compared with therapists who did not receive feedback. An even greater effect was found among those studies that only compared the effect of feedback on clients who were identified as being NOT in therapy. However, the results of our study could not evaluate the effectiveness of CST for treatment planning due to the inequality between conditions on the primary dependent variable at intake. As such, additional research is necessary to completely explore the effectiveness of TSM for treatment planning.

A significant minority (40%) of therapists found the TSM to be useful for the purpose of treatment planning while the majority of therapists neither agreed nor disagreed. These results are likely influenced by the limited number of TSM alerts that occurred at the beginning of treatment in the TSM-FB condition (45%). However, qualitative research investigating how therapists utilize feedback and what feedback is considered "useful" to therapists may add further insight into ways feedback can be improved. In particular, focusing on "user friendliness" and therapist feedback is critical in enhancing the use and usefulness of these tools.

Such data could help to better understand the impact that feedback has among different clients and therapists.

In the broader psychotherapy field, implementation and use of ROM and/or CST tools is still the exception to the rule. Estimates of the use of feedback tools in routine clinical practice is estimated to be as low as 11% in some studies (Hatfield, McCullough, Frantz, & Krieger, 2010; Ionita, & Fitzpatrick, 2014). Such estimates are concerning given the APA's stance on ROM as an evidenced-based practice (APA, 2006).

Experts in the field have identified several barriers to implementation and use that may affect the perceived cost vs. usefulness of these tools in clinical practice (Boswell, Kraus, Miller, & Lambert, 2015). These barriers include financial burdens, time burdens (for therapists and clients), turnover among management, multiple stakeholders, and fear and mistrust of the consequences of monitoring outcomes. However, they also identify several ways that these barriers can be eased or removed. For example, they recommend that automated electronic systems be utilized to simplify and minimize the disruption caused by clients completing measures at the beginning of treatment. The authors also note that administrators can engender clinician "buy in" by including front line clinicians in education and decision making regarding the implementation of feedback tools. Lastly, they suggest that identifying a "local champion" who can champion the use of feedback measures at individual sites. These champions should be well respected in the organization and can provide guidance and support to local clinicians regarding the use of feedback tools with their population.

Future studies should evaluate barriers to implementing TSM feedback at treatment planning through qualitative research. The addition of free-response questions and compensation for participation in focus groups may lead clinicians to share more of their perspective on how to

improve the utility of feedback. Therapists may be more likely to utilize feedback when time constraints are reduced through the use of electronic data transmission to streamline the feedback. Further, access to “in-clinic” champions who can provide encouragement and advice regarding feedback tools may lead to an enhanced view of the usefulness of these tools. As research evolves to include these recommendations, both clients and therapist will benefit from the added utility of these tools.

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Appendix

Therapist Questionnaire

Please answer the following questions regarding the client identified in your email. Circle the answer which best fits for your experience with the client identified.

1. I had a thorough understanding of my client's functioning at the beginning of treatment.

Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
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2. I felt like I had all of the information needed to make a comprehensive treatment plan.

Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
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3. I had a detailed understanding of important areas that impacted my client's functioning (e.g., social support, self-efficacy) at the beginning of treatment.

Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
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4. I utilized information obtained at the beginning of treatment to identify additional areas of intervention beyond my client's primary concerns (e.g., increasing social support, improving parenting skills, addressing client motivation).

Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
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5. Having access to TSM data at the beginning of treatment was helpful to me.

Yes No

6. I feel that my patient dropped out of therapy prematurely (i.e., in my opinion, my patient did not obtain their goals for therapy). Or, if your client is still in therapy, I feel that my client is not on track to meet their goals for therapy. *Yes/No*

Yes No

Therapist Questionnaire

Please answer the following questions regarding the client identified in your email. Circle the answer which best fits for your experience with the client identified.

1. I had a thorough understanding of my client's functioning at the beginning of treatment.

Strongly Agree **Agree** **Neither Agree
nor Disagree** **Disagree** **Strongly
Disagree**

2. I felt like I had all of the information needed to make a comprehensive treatment plan.

Strongly Agree **Agree** **Neither Agree
nor Disagree** **Disagree** **Strongly
Disagree**

3. I had a detailed understanding of important areas that impacted my client's functioning (e.g., social support, self-efficacy) at the beginning of treatment.

Strongly Agree **Agree** **Neither Agree
nor Disagree** **Disagree** **Strongly
Disagree**

4. I utilized information obtained at the beginning of treatment to identify additional areas of intervention beyond my client's primary concerns (e.g., increasing social support, improving parenting skills, addressing client motivation).

Strongly Agree **Agree** **Neither Agree
nor Disagree** **Disagree** **Strongly
Disagree**

5. I feel that my patient dropped out of therapy prematurely (i.e., in my opinion, my patient did not obtain their goals for therapy). Or, if your client is still in therapy, I feel that my client is not on track to meet their goals for therapy. *Yes/No*

Yes No

Parent/Youth participant script:
Used by researchers during intake at WMH/IHC site:

My name is _____, and I am part of a research team from Brigham Young University. We are trying to learn more about the things that help youth benefit from counseling services. Because you and your child are receiving services through Wasatch Mental Health/Intermountain Healthcare, we are inviting you and your child to participate in this study, and would like to give \$10 to each family today for helping us. Participating is simple; parent/primary caregiver and youth each sign a one-time consent/assent form [hold up both forms]. The parents/primary caregivers of youth who are 4-17 years of age and youth who are 12-17 years of age then completes questionnaires (Y-OQ and TSM) given to you and your child by the therapist as part of regular session paperwork. In other words, these questionnaires would be part of the youth's services whether or not he/she was part of this study. The questionnaires will ask about you and your child's thoughts, feelings and behaviors which may give your child's therapist -and others that work with your child- a good idea of how to help.

Questionnaires will be completed at every therapy session and take about 10 minutes to finish. So, you and your child would need to come about 10 minutes before sessions in order to complete the forms. You and your child will already be completing these questionnaires each session as part of your child's regular counseling services, regardless of your involvement in this study.

In addition to giving you \$10 today for helping us, we would like to give you another \$10 for completing the forms at or around your child's last appointment -- making a total of \$20.

This study is only with parents of youth ages 4-17, and youth ages 12-17. All answers on the questionnaires will be kept confidential, meaning only authorized research and treatment personnel (those who would normally be seeing questionnaires, whether or not you are part of the study) will be able to see them. Lastly, you can end your participation in this study at any time without any impact on the services you and your child would regularly be receiving. Thank you for taking the time to listen and to consider participating. Do you have any questions?

Thank you!



Therapist participant script:

Script to be used by researchers at WMH site:

My name is _____, and I am part of a research team from Brigham Young University. We are trying to learn more about the things that help youth benefit from counseling services. Because you are delivering services through Wasatch Mental Health, we are inviting you to participate in this study, and would like to give you \$10 today for helping us. Participating is simple; you would sign a one-time consent form [hold up forms], participate in an initial training, and complete a brief questionnaire. You would then administer the Youth Outcome Questionnaire (Y-OQ) and Treatment Support Measure (TSM) as part of regular session paperwork to each of your youth participants (for children 12-17) and their parents (for children 4-17) for a 6-month period. The Y-OQ will be given at every session, and the TSM only at the beginning of treatment, end of treatment and whenever a client is deemed a "signal client." The questionnaires will provide feedback for half of your clients, which you can then view and incorporate into treatment as you see fit.

Questionnaires will normally take about 10 minutes for the clients to finish. Feedback is instantly updated and able to be viewed in the OQ Analyst. So, you would need to set aside the appropriate amount of time before the session in order for the client to complete the forms and for you to view the feedback. Completion of these questionnaires and viewing of the feedback is already part of the routine care at your site, regardless of involvement in this study.

In addition to giving you \$10 today for helping us, we would like to give you another \$10 per client once you have completed one brief questionnaire for each client 3 months from when they start treatment.

All answers on the questionnaires and any other data collected will be kept confidential, meaning only your client and authorized research and administrative personnel will be able to see them. Lastly, you can end your participation in this study at any time without any impact on your standing with your employer or the university. Thank you for taking the time to listen and to consider participating. Do you have any questions?

Thank you!



Consent for you to be a Research Participant (Parent)

Introduction

This research study is being conducted by Jared Warren, Ph.D. and Gary M. Burlingame, Ph.D. at Brigham Young University to determine factors that may improve the quality of mental health treatment for children. We are seeking 450 clients to participate in this study. You and your child may interact with a doctoral student in the clinical psychology program who is supporting this research at your center. You and your child were invited to participate because they are a client receiving therapy at a counseling center from a therapist that has agreed to participate in our research.

Procedures

If you consent for you and your child to participate in this research, you and your child will be asked to:

- Complete questionnaires that are a part of treatment at Wasatch Mental Health (WMH)/Intermountain Healthcare (IHC). These questionnaires take most individuals about 10 minutes and are given and expected to be completed at each of your child's sessions. These questionnaires are a regular part of your child's therapy, and would be completed whether or not you were participating in this study.
- At the beginning of therapy, you and your child will also be asked to complete the Treatment Support Measure (TSM). This measure usually takes about 5-10 minutes. These questionnaires are a regular part of your child's therapy, that would be completed whether you were participating in this study or not.
- Over the course of therapy, you may be selected to complete additional questionnaires based on your responses. These questionnaires are a regular part of your child's therapy, that would be completed whether you were participating in this study or not.
- As a part of the study, your case will be randomly assigned to either a feedback or no-feedback group. This means that your therapist may or may not have access to feedback based on your responses to questionnaires. Your responses to questionnaires may be viewed by your child's therapist, research and administrative personnel.
- Six months after your first therapy session, you will be asked to complete an additional questionnaire that will take 5-10 minutes.

Risk/Discomforts

Minimal risks are anticipated by this study. There may be some potential for emotional discomfort in allowing your therapist to see the results of your questionnaire. However, if you feel any emotional discomfort, you can choose to address any concerns with your therapist. Lastly, your child's therapist may or may not have access to your child's questionnaire information. Because therapists' viewing of client questionnaire information is part of the regular services offered at WMH/IHC, therapists will be expected to address those important questions (that are addressed in the questionnaires) that are critical to your child's care, directly face-to-face with your child in the session.

Benefits

There is a potential for you to benefit directly from participating in this study, in that your therapist may make changes to your treatment based on your feedback that is anticipated to assist



the process of your treatment. In addition to these benefits, the results of this study may inform future psychological research that could improve the practice of therapy for youth.

Confidentiality

During the study, research data and any identifying information will be kept in a secure location/on a password protected computer and only the researcher will have access to the data. We will not share your child's Y-OQ and TSM information with anyone other than your therapist and primary researchers. All personally identifying information will be destroyed 6 months after data collection ends (February 1, 2018), to make it impossible to identify any participants. This de-identified data may be used by the primary researcher (Dr. Jared Warren) in the future for other studies.

Compensation

After agreeing to participate and completing the TSM at your first visit, your child will be compensated \$10 for participating in our study. Once you and your child complete the final TSM (six months after your first session), your child will receive an additional \$10.

Participation

Participation in this research study is voluntary. You have the right to withdraw your child or refuse your child to participate at any time without jeopardy to you or your child's standing with WMH/IHC.

Questions about the Research

If you have questions regarding this study, you may contact Jared Warren by email (jared_warren@byu.edu) phone (801-422-5600) or campus mail (291 TLRB) for further information.

Questions about Your Rights as Research Participants

If you have questions concerning your rights as a research participant contact Brenda Ahlemann, M.B.A.
Division of Substance Abuse and Mental Health (DSAMH)
(801) 538-9868, BAHLEMANN@utah.gov

Statement of Consent

I have read, understood, and received a copy of the above consent and desire of my own free will for my child to participate in this study

Name of your child (Printed): _____

Your Name (Printed): _____

Your Signature: _____ Date: _____

Your preferred email (for the final \$10): _____



**Research Study
Youth Assent**

My name is Dr. Jared Warren. I am a professor at Brigham Young University and am the main researcher in this study. You are invited to be a participant in this study with your parent or guardian. The reason we are doing this study is to learn more about things that may help youth get better from counseling. If you would like to participate, you would complete some questionnaires that will take about 10 minutes to complete each time you see your counselor. You may also be asked to answer questionnaires at other times. You will be answering these questionnaires as part of your regular counseling, whether or not you agree to participate in this study. The questionnaires will be about your relationships with others, things you feel you can do, and your thoughts about therapy. Your answers may be given to your counselor so they can help you during your time in counseling. As part of the study, participants will be randomly selected to either have their answers available to therapists, or not available to therapists. This will help us learn how helpful it is to provide this information to the therapists. We will keep your answers private (the only people who can see your answers will be those who would have seen them whether or not you are in this study and the researchers over this study). Your parent or guardian will not see your answers unless you would like to share them. We will keep your completed questionnaires in a locked drawer or on a password protected computer at Brigham Young University. Six months after this study is over (February 1, 2018), we will erase your personal information so that no one can link your answers back to you. After your personal information has been erased, I (Dr. Jared Warren) will probably use your answers (without your personal information) in other studies.

To thank you for your help, you will be given \$10 today, and another \$10 in six months when you finish your last questionnaire. Your help in this study is voluntary, and you can stop being a part of it at any time. If you choose to stop being a part of this study, it will not impact your counseling.

If you would like to be a participant in this research study please sign your name below.

Signature of Youth Participant: _____ Date: _____

Witness: _____
(person besides parent or primary investigator of the study)

Questions about the Research: If you have questions about this study, you may contact Jared Warren, Ph.D., at (801) 422-5600, 291 TLRB, Provo, UT 84602, or by email at jared_warren@byu.edu.

Questions about your Rights as Research Participants: If you have questions regarding your rights as a research participant, you may contact Brenda Ahlemann, M.B.A.
Division of Substance Abuse and Mental Health (DSAMH)
(801) 538-9868, BAHLEMANN@utah.gov



Consent to be a Research Participant (Therapist)

Introduction

This research study is being conducted by Jared Warren, Ph.D. and Gary M. Burlingame, Ph.D. at Brigham Young University to determine the usefulness and effect of feedback to therapists on client outcome. We are seeking 450 clients to participate in this study. As a part of the study, you will be asked to complete some questionnaire information and interact with research personnel in a clinical psychology program. You were invited to participate because you currently work at Wasatch Mental Health (WMH).

Procedures

If you consent to participate in this research project, you will be asked to do the following:

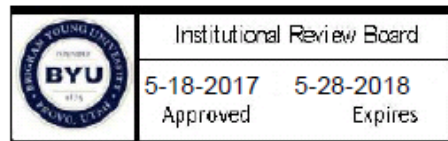
- Participate in a training meeting on the use of the Youth-Outcome Questionnaire (Y-OQ) and Treatment Support Measure (TSM) as a part of a regularly scheduled meeting at WMH (60 minutes).
- All of your clients will take the Y-OQ and TSM at the beginning of treatment. Participating new cases will be randomly assigned to either a feedback or no-feedback group. You will be able to view the feedback data of those clients in the feedback group to utilize in treatment planning throughout the 6-month period of data collection.
- Over the course of treatment, you will be given Y-OQ and/or TSM data at each session for these clients to use in monitoring treatment.
- Three months into treatment, you will be asked to complete one questionnaire on your use of Y-OQ and TSM data for each of your clients.
- At the end of the study, you may be asked to participate in a confidential audio-recorded interview to share your experience of utilizing feedback measures.

Risk/Discomforts

There is a minimal risk for participation in this study beyond the time investment in completing questionnaires and reviewing feedback. It is possible that some discomfort may arise when reviewing data regarding client progress or in answering questions about the use of the TSM and Y-OQ. If some discomfort occurs, you can discuss it with research personnel. It is also possible that your participating clients and/or their guardians may experience some discomfort in completing measures. If discomfort occurs, they may address these concerns with you. Lastly, because receiving feedback is a regular service you offer your clients at WMH/IHC, and because you will not have access to feedback for half of your clients, it will be important for you to inquire after critical issues within the session that you may have otherwise relied on the Y-OQ to ask and answer (e.g. suicidal ideation, self-harm, etc.).

Benefits

No known direct benefits for participating in this study have been identified. However, past research on the use of feedback measures with adults has shown that feedback can be helpful to improve client outcome. We hope that participation in this study will help researchers to learn about the benefits of providing client feedback to youth clients.



Confidentiality

During the study, research data and any identifying information will be kept in a secure location/on a password protected computer and only the research, therapist and administrative personnel will have access to the data. We will not share your client's Y-OQ and TSM information with anyone other than you, your therapist, administrative and research personnel. All personally identifying information will be destroyed 6 months after data collection ends (February 1, 2018), to make it impossible to identify any participants. This de-identified data may be used by the primary researcher (Dr. Jared Warren) in the future for other studies.

Compensation

Agreement to participate in this study and completion of initial questionnaire data will result in \$10 in compensation. Three months after the intake session, you will be sent an additional questionnaire for each client. Completion of this questionnaire will result in an additional compensation of \$10.

Participation

Participation in this research study is voluntary. You have the right to withdraw or refuse to participate at any time without jeopardy to your standing with WMH/IHC.

Questions about the Research

If you have questions regarding this study, you may contact Jared Warren by email (jared_warren@byu.edu) phone (801-422-5600) or campus mail (291 TLRB) for further information.

Questions about Your Rights as Research Participants

If you have questions concerning your rights as a research participant contact Brenda Ahlemann, M.B.A.
Division of Substance Abuse and Mental Health (DSAMH)
(801) 538-9868, BAHLEMANN@utah.gov

Statement of Consent

I have read, understood, and received a copy of the above consent and desire of my own free will to participate in this study

Your Name (Printed): _____

Your Signature: _____ Date: _____

