PROJECT ARCHES:

AN EVALUATION OF A MODIFIED FAMILY CHECK-UP INTERVENTION

IN AN ASSESSMENT SETTING

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A Dissertation presented to

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by

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The undersigned, appointed by the dean of the Graduate School, have examined the dissertation entitled

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Presented by Lindsay A. Borden,

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ABSTRACT

Providing feedback to parents after child psychological evaluations is a critical

opportunity for mental health professionals to directly impact problem recognition,

treatment attendance and engagement, and subsequent outcomes. However, research

examining evidence-based and therapeutic forms of feedback is limited and current

frameworks largely neglect the importance of addressing family engagement and

motivation during feedback sessions. The purpose of the present study was threefold: 1)

to develop a family-focused assessment feedback process using principles from the

evidence-based Family Check-Up intervention and motivational interviewing (MI), 2) to

train student clinicians to implement feedback sessions, and 3) to evaluate both feedback

and training procedures. Participants included 5 graduate student clinicians and 10

parent-child client dyads recruited from a university-based clinic that provides

comprehensive evaluations to children in a Midwestern community. Both clinicians and

parents expressed positive perceptions of the feedback sessions. Clinicians' perceived

MI self-efficacy increased after training sessions and objective coding of feedback

sessions revealed use of greater MI-consistent than inconsistent language that resulted in

subsequent parent change talk. Limitations and implications for future research are

discussed.

CHAPTER I

Introduction

Use of assessment, whether formal or informal, is an important and inevitable part
of psychological service delivery to children and families. While specifics may vary
across theoretical perspectives, psychological assessment typically refers to the processes
and measures used to accumulate, evaluate, and integrate information in order to address
an identified referral question (Fernandez-Ballesteros et al., 2001; Mash & Hunsley,
2005; Sattler & Hoge, 2006). Common referral questions for assessment include
examination of behavior patterns both presently and over time, causes of behavior,
methods for changing behaviors, client deficits, and client strengths (Beutler, Groth-
Marnat, & Rosner, 2003). By synthesizing information to respond to these areas of
inquiry, the ultimate goal becomes the development of individualized, practical
recommendations for intervention.

Despite the prevalence of assessment in clinical practice, little evidence exists
regarding its utility for increasing positive treatment outcomes. Mash and Hunsley
(2005) noted that this consistent lack of attention to effectiveness and outcomes reflects
several related factors including: 1) practitioners' assumption of the inherent worth of
commonly used assessment measures (i.e., cognitive tests, self-report personality
measures); 2) difficulties with operationalizing the many components of the assessment
process; 3) confusion surrounding the type of criteria and evidence required to evaluate
assessment practices; 4) perception that assessments are less "exciting" than
psychological interventions and function simply as an intermediary to the delivery of
effective treatments; and 5) decreasing availability of health care resources for

assessment activities including evaluation of effectiveness. Repeated calls have been made to develop and use evidence-based assessment processes (e.g., Achenbach, 1985; Achenbach & McConaughy, 1997; Achenbach & Rescorla, 2001; Mash & Terdal, 1997; Ollendick & Hersen, 1984), yet these efforts have not led to any significant increases in the evaluation of current practices (e.g., Hunsley & Mash, 2005; Ollendick, 2003), particularly when compared with the rapid growth seen in the area of evidence-based treatment for children and adolescents (e.g., Barrett & Ollendick, 2004; Hibbs & Jensen, 2005; Weisz & Kazdin, 2010).

Given the large industry that has developed around psychological testing, it seems likely that assessment-oriented practitioners believe that their oral or written reports provide helpful information to other service providers and to children and families seeking or currently participating in treatment. In line with this hypothesis, qualifications and core competencies of ethical and responsible psychological assessment include, "An understanding of the relationship between assessment and intervention, assessment as an intervention, and intervention planning" (Krishnamurthy et al., 2004, p. 732). This stated importance of connecting assessment with interventions is widely emphasized by both researchers and practitioners, yet empirical evidence is lacking, and the role of assessment in the delivery of evidence-based practices remains seldom explored (Weisz, Chu, & Polo, 2004). One specific area identified for further investigation that may bridge the gap between assessment and interventions includes the use of feedback.

Assessment Feedback

The significance of feedback in psychological assessment has not been without debate and controversy. In the past, graduate training and practitioners' beliefs

concerning the use of feedback was that it should only be provided to the referring clinician (e.g., psychiatrist) and in rare occasions, the referred individual or his/her caregiver (Ward, 2008). One commonly held position on feedback as expressed by Klopfer (1954) was that it can be "dangerous and harmful..." potentially generating "much grief, both to the patient and to the psychologist" (p. 603). Further, if a clinician were to meet a client that persistently requested assessment feedback, Klopfer (1954) recommended that the practitioner give "fairly superficial kinds of interpretation... " that are "apt to be consciously acceptable to the individual and not particularly anxiety-provoking" (p. 603).

In the many years since these early recommendations, the provision of oral or written feedback has now become a central component of psychological assessments. This shift seems to reflect the overall cultural movement to decrease power differentials between health care clinicians and clients as well as the efforts of psychologists who emphasized the therapeutic function of assessment feedback (Finn & Tonsager, 1992, 1997; Fischer, 1979, 1985/1994). The importance of providing feedback is further highlighted within the ethics code (American Psychological Association, 2002; Standard 9.10), which describes practitioners' obligation to take reasonable steps to clearly communicate assessment results to the client or someone acting on the client's behalf. Moreover, "provision of feedback that is understandable, useful, and responsive to the client…" is listed as a core competency for assessment practitioners (Krishnamurthy et al., 2004, p. 733).

Therapeutic Assessment and Feedback

While its importance has become more apparent, the definition and function of feedback in assessment differs by approach. For instance, Finn and Tonsager (1997) noted differences between information-gathering and therapeutic models of assessment and feedback; the former focused on collecting and imparting data to inform decision-making about clients and the latter on producing client change through the assessment and feedback process itself. Given the prevalence of assessments in practice and practitioners' ethical obligation to ensure client understanding of results, the idea that it may be used therapeutically has significant implications. Existing research in this area has focused on clients' willingness to accept results based on salient factors (Dana & Graham, 1976; DiClementi & Handelsman, 1987; Snyder, Larsen, & Bloom, 1976), quality assurance questionnaires that assess clients' perspectives of assessment feedback (Bennett-Levy, Klein-Boonschate, Batchelor, McCarter, & et al., 1994; Nevo, 1995), different feedback methods and resulting effects (Ackerman, Hilsenroth, Baity, & Blagys, 2000; Allen, Montgomery, Tubman, Frazier, & Escovar, 2003; Hanson, Claiborn, & Kerr, 1997), and studies that have examined Finn's (1996) model of therapeutic assessment (Finn & Tonsager, 1992; Newman & Greenway, 1997; Tharinger et al., 2009; Tharinger, Finn, Wilkinson, & Schaber, 2007).

Finn's (1996) model outlines procedures for using the Minnesota Multiphasic Inventory-2 (MMPI-2) as a therapeutic intervention. Beginning with an initial interview, clinicians are encouraged to build rapport with the client, collaboratively identify assessment questions, collect relevant background information, and address clients' questions and concerns regarding the assessment. Feedback sessions following the

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assessment are tailored to clients' questions and goals. Particular attention is also paid to maintaining the collaborative and supportive interpersonal quality of the clinician-client relationship. Clients are involved in the interpretation and generalization of the clinicians' MMPI-2 findings and, in the event of a disagreement, are invited to modify or reject them to make them more accurate. Finn and Tonsager's (1992) study provided the first direct evidence that receiving MMPI-2 feedback in a collaborative style can result in significant therapeutic benefits. College student participants in their study experienced a significant decrease in psychological distress and increase in self-esteem. These effects were replicated by Newman and Greenway (1997).

Based on therapeutic assessment research, Tharinger et al. (2008) proposed steps for preparation and implementation of a collaborative, therapeutic model for providing assessment feedback to caregivers of an indentified child client. This model suggests developing a comprehensive plan for the feedback session that includes decisions about language and tone, whom to invite to the session, communication of findings and recommendations, and addressing clinicians' own anxiety about presenting the information. Once the family arrives for the session, guidelines for presenting oral feedback to the caregivers include: 1) checking in with their feelings about the meeting; 2) outlining a verbal agenda for the session that highlights the collaborative nature of the process; 3) acknowledging and empathizing with the family's efforts and struggles; 4) reviewing the assessment results; 5) reviewing recommendations; and 6) closing the session by including assessment of the caregivers' comprehension of material and eliciting their reactions. Based on Finn's (1996) model, Tharinger and colleagues (2008) further propose that the flow of the assessment results begin with findings that

corroborate elements of the caregivers' view of the child and his/her problems since these are likely to be easily accepted. Next, clinicians should present findings that differ from caregivers' perception of their child and family but are unlikely to challenge self-esteem or beliefs. Finally, novel findings that may be questioned or rejected are presented as long as the caregivers do not appear overwhelmed. Since this last piece of information can be anxiety provoking, the authors note that understanding and support conveyed by the assessor in earlier interactions would increase the likelihood of acceptance of the findings. A recent pilot study with clinic referred children with emotional and behavior problems and their parents investigated the acceptability and outcomes related to this model (Tharinger et al., 2009). Results indicated high treatment acceptability, decreased post-intervention child symptoms, and enhanced family functioning (Tharinger et al., 2009). However, the no-control, AB design and small sample size temper the strength of these findings.

Limitations of Current Practices

This framework serves as a critical step in the development of therapeutic feedback practices for families, but research is still minimal and current models suffer from key limitations. The first of these limitations includes the imbalanced nature of assessment measures and resulting reports and feedback. Since clinic settings primarily treat physical, emotional, and mental problems, orientations in these settings often focus on problems and deficits to the neglect of assets and resources that complement effective problem-solving efforts (Wright & Fletcher, 1982). This negative bias permeates throughout all aspects of traditional assessments including measures that are used, interpretations, treatment recommendations, and feedback sessions with families.

Further, identification of diagnoses is a common practice and often a part of the referral question, leading to potential stigmatization and self-fulfilling prophecies that are attached to such categories (Snyder et al., 2003; Snyder, Ritschel, Rand, & Berg, 2006). A more balanced approach to assessment includes acquiring information about both assets and weaknesses within persons and environmental contexts (Wright, 1991). Snyder et al. (2006) described several possible advantages of using this approach including: 1) clients may understand that the assessor is trying to evaluate them as a whole person; 2) clients may feel a healthy separation between their identity and the problem; 3) reinforcement of all aspects (i.e., both positive and negative) of the client including potential benefit-finding in areas of weakness (Tennen & Affleck, 2002); and 4) an increased experience of trust and rapport between the client and assessor.

Another limitation involves the traditional model's failure to address treatment barriers commonly experienced by families. Several caregiver-related barriers to seeking and participating in mental health services include lack of awareness of the presence and severity of the problem (Pavuluri, Luk, & McGee, 1996; Raviv, Sharvit, Raviv, & Rosenblat-Stein, 2009) and difficulties with treatment engagement (Morrissey-Kane & Prinz, 1999; Pavuluri et al., 1996; Watt & Dadds, 2007). Families often do not seek psychological services until parents are aware of the problem and concurrently perceive that they are not able to handle it independently (Raviv et al., 2009). However, evidence that these parental perceptions are not always in agreement with observed youth behavior (Griest, Forehand, Wells, & McMahon, 1980), practitioner or teacher report (Webster-Stratton, 1988), and youth report (Kazdin, Mazurick, & Bass, 1993) demonstrates the highly subjective nature of these perceptions. Parents may not perceive that in

comparison to their child's same-age peers, their family's problems are clinically significant and could benefit from services. Regardless of parents' level of awareness of the problem, the likelihood of seeking services does not increase unless parents believe that their problems are burdensome (e.g., family stigma, threat to parental well-being, restriction on parental activites; Angold et al., 1998). Previously outlined therapeutic assessment and feedback practices may help parents to develop such awareness; however, clients may find this information overwhelming and it has potential to contradict their perception of the problem. Thus, clinicians may unfortunately avoid the delivery of challenging information to their clients (as advised by the model) and may subsequently reduce the feedback's potential to increase parental motivation for treatment by helping them better understand the problem.

Once families decide that services are necessary, success of treatment remains contingent upon parents not only bringing their families to sessions, but also fully engaging in the therapeutic process (Morrissey-Kane & Prinz, 1999). Despite gathering enough motivation to schedule an initial session, research shows that 15-35% of parents do not show up for first appointments (Ewalt, Cohen, & Harmatz, 1972; Kourany, Garber, & Tornusciolo, 1990). Additionally, the dropout rate for parents who do attend initial child and/or family sessions is as high as 60% (Armbruster & Fallon, 1994; Gould, Shaffer, & Kaplan, 1985; Pekarik & Stephenson, 1988; Weisz, Weiss, & Langmeyer, 1987). Several studies suggest that dropout is more likely in families with parents who are uncooperative, negative, or not motivated to make personal changes (Frankel & Simmons, 1992; Gould et al., 1985). Conversely, parents' motivation and positive attitude toward services are shown to be important factors in retention or continuation of

treatment (Ewalt et al., 1972; Pekarik & Stephenson, 1988; Singh, Janes, & Schechtman, 1982; Viale-Val, Rosenthal, Curtiss, & Marohn, 1984). Unfortunately, current models of therapeutic assessment and feedback falsely assume the presence of motivation and readiness for family change, as these are not directly addressed in sessions (Tharinger et al., 2007). Due to this format, it is likely that parents who are unaware of significant problems or ambivalent about treatment will not seek these services or will be highly resistant to completing the 8-10 sessions recommended by Tharinger and colleagues (2007). Further development of therapeutic models should monitor treatment resistance and motivation as well as seek ways to provide efficient services that require expense of minimal family resources.

A Motivational Approach to Assessment and Feedback

Effective parent engagement strategies directly address these well-documented structural barriers to help-seeking (see Webster-Stratton, 1998). These include offering services at flexible times, providing meals and child-care for participation in family-focused interventions, and providing incentives for participation. However, recent literature has suggested that families will resolve many of the structural barriers on their own if they perceive that the services are needed and likely beneficial (McKay et al., 2004). Thus, the most impactful engagement strategies must focus on directly addressing the perceptual barriers to care and helping families to see a high likelihood of benefit of help-seeking relative to cost. While the literature typically applies these strategies to initial help-seeking, they may also provide a useful framework for successfully linking families to clinical services after completion of a comprehensive assessment. One

general intervention strategy relevant to helping tilt the balance of these perceptions in favor of service seeking after assessment is motivational interviewing.

Motivational Interviewing

Motivational interviewing (MI) principles provide a useful and effective framework for structuring an intervention to foster client engagement and minimize resistance. MI is a client-centered, directive approach to treatment designed to help clients resolve ambivalence and increase motivation to change through empathy, encouragement, and non-judgment. MI developed both from the need to improve treatment adherence and the concurrent observation that certain counselors' "way of being" with their clients significantly contributed to increased compliance and positive treatment outcomes (Miller & Rollnick, 2002). The use of MI initially began within the field of addictive behaviors; however, low treatment compliance is common across many social, emotional, and behavioral conditions and may occur for a variety of reasons including difficulty with the treatment, lack of understanding, doubts about the benefit of the treatment, real or perceived barriers, and/or lack of needed support (Gance-Cleveland, 2005). Thus, MI is relevant for various clinical issues whenever motivation is a concern.

Stages of Change. Within MI, family members' motivation is viewed as the foundation of the change process and may be further understood through examination of their "stages of change" (Prochaska & DiClemente, 1982). Such examination includes assessment of their placement among five emotionally-oriented stages that are common when individuals or families make significant behavior changes (i.e., precontemplation, contemplation, preparation, action, maintenance; Prochaska & DiClemente, 1982; Prochaska, DiClemente, & Norcross, 1992).

The precontemplation stage describes those who have no intention of change. For families, this stage could include those who are struggling with an issue but are not fully aware of it, or do not perceive it as severe enough to warrant change. Contemplation and preparation stages include those who have acknowledged the problem and made a commitment to take action, respectively. Families in the contemplation stage may have awareness of the problem, but are hindered by negative perceptions of treatment or a cultural disconnect between their needs and available services. In the action stage, families work to modify the problem. These families have worked, either independently or early in the intervention, to overcome any significant barriers to change. The maintenance stage includes consolidation of treatment gains and prevention of relapse. This stage emphasizes that lasting change for families requires continued work and commitment to the modified behaviors. Navigation through these stages, however, is typically not linear. Instead, families are likely to cycle back through previous stages. For instance, a family attending an initial therapy session or assessment (e.g., action stage) may experience difficulties with engagement in treatment that causes them to subsequently terminate (e.g., return to contemplation or preparation stage).

The Spirit of MI. MI focuses on the collaborative, interpersonal partnership between clinician and client known to reduce resistance and enhance treatment motivation by strategically and empathically evoking statements of commitment from the client while respecting his/her autonomy in the change process. Readiness for change stems from two primary client factors: the importance of the change and the confidence the client has to successfully make the change (Burke, Arkowitz, & Menchola, 2003). Given the difficulty of making lasting change, ambivalence is viewed as normative, not

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pathological. From this perspective, clinicians avoid confronting or challenging client resistance, strategies that actually solidify resistance (Miller, Benefield, & Tonigan, 1993), and instead, clinicians strategically help clients to resolve their ambivalence through accurate empathy and by encouraging clients to make their own arguments for change (Miller & Rollnick, 2002)

Miller and Rollnick (2002) describe motivational interviewing as an overarching "spirit" or way of being with others instead of a set of clinical techniques. Four general principles help guide clinician responses during MI: 1) express empathy; 2) develop discrepancy; 3) roll with resistance; and 4) support self-efficacy. Miller and Rollnick (2002) describe empathy through the use of reflective listening to convey non-judgment and acceptance of the client's perspective while also avoiding direct agreement or endorsement of his/her point of view. Accurate empathy expressed in his manner is critical to the change process as it contributes to the development of the therapeutic alliance and in turn supports client change. The second principle, develop discrepancy, requires the clinician to use directive strategies to assist clients with creating and amplifying discrepancy between present behaviors and broader goals and values. Since discrepancy is derived from the client's own perspective, the client is able to develop his/her own argument for the importance of the change without judgment or pressure from the clinician. Rolling with the client's resistance, the third principle, calls for the clinician to avoid opposing resistance in favor of reframing it to bring about a greater momentum toward change. This component emphasizes the clinician's respect for the client's autonomy as well as the client's capability to generate insightful solutions to problems. From this view, resistance is a signal for the clinician to modify strategies

instead of an indicator of client pathology. Finally, the fourth principle of supporting

client self-efficacy involves enhancing the client's belief in his/her ability to follow

through and to succeed in change. It is essential that the clinician genuinely believe in

the client's capacity to change in order to promote client self-efficacy.

      Guiding Principles for Using MI with Families: FRAMES. MI is grounded in

social psychology research about interpersonal processes that make it more likely that

people will be motivated to change. In his original review, Miller found that effective

brief motivational interventions had six factors in common: feedback, responsibility,

advice, menu, empathy, and self-efficacy (summarized by the FRAMES acronym; see

Miller & Rollnick, 2002). Dishion and Kavanagh (2003) later described how these

FRAMES principles apply to families.

      Feedback includes providing data-based information to the family about their

behavioral problems and any future implications. *Responsibility* refers to communicating

with families regarding their primary role in the change process and emphasizes the

families' role as experts regarding their own behaviors and values. Access to the *advice*

of an expert of behavioral or developmental issues could assist families with making

realistic goals and targeting efforts toward the most troubling areas (Dishion &

Kavanagh, 2003). By incorporating expert advice, parents may be more likely to see

improvements as a part of the behavior change process and subsequently, may be less

likely to drop-out and more likely to maintain a positive attitude toward treatment. Using

a *menu* underscores the importance of working with families to develop a list of treatment

options or behavior change strategies instead of offering a single option. Working from a

menu of choices provides families with an opportunity to select the optimal course to fit

their needs and style. Another critical element of motivational interventions is *empathy*. With compassion for and understanding of parents' experiences, practitioners can use empathy to motivate families toward successful behavior change (Dishion & Kavanagh, 2003). Finally, participating in a session conducted using motivational interviewing strategies promotes a sense of *self-efficacy* in families. Self-efficacy reflects families' sense of empowerment and readiness to engage in behavior change and is developed by co-creating specific, measurable, and realistic goals.

MI Efficacy and Mechanisms of Change. The efficacy of MI for a variety of clinical concerns (e.g., alcohol problems, drug addiction, diabetes, hypertension, dual diagnoses, bulimia) is well documented across three decades of research (see Miller & Rollnick, 2002; Miller & Rose, 2009). After establishing the efficacy of MI, researchers began to examine the process by which MI principles affect subsequent behavior change. It was originally hypothesized that clients' verbal arguments for change ("change talk"; Miller & Rollnick, 2002) promote behavior change. Conversely, client "sustain talk" favors retention of the behavioral status quo. Thus, proficient use of MI techniques in-session will increase clients' change talk and decrease sustain talk, which in turn will predict behavior change (Miller & Rose, 2009). Researchers additionally emphasized the importance of counselors' demonstration of empathic understanding in this hypothesized mechanism. Research on the first piece of this hypothesized model (i.e., MI skills are related to increased change talk and decreased sustain talk) shows that counselor style significantly affects client behavior such that client resistance increases and decreases with counselors' directive and reflective statements, respectively (Miller et al., 1993; Patterson & Forgatch, 1985). Moreover, studies suggest that MI techniques used by

clinic and/or community mental health professional are significantly related to increased

client change talk in-session (Amrhein, Miller, Yahne, Palmer, & Fulcher, 2003; Miller,

Yahne, Moyers, Martinez, & Pirritano, 2004; Moyers, Martin, Houck, Christopher, &

Tonigan, 2009; Schoener, Madeja, Henderson, Ondersma, & Janisse, 2006). Moyers and

Martin (2006) provided additional evidence for this link through the first study examining

the temporal link between counselor behavior and change talk. In their study, MI-

consistent counselor behaviors resulted in an increased probability of subsequent client

change talk. Empirical examinations of the second piece of the hypothesized model (i.e.,

increased change talk predicts behavior change) have resulted in mixed but encouraging

findings. While earlier research failed to find the expected relationship between client

speech and behavior change (e.g., Miller et al., 1993), recent research in addictive

behavior suggests that client change talk and commitment language (i.e., action-oriented

change talk) predicts significantly improved outcomes (Miller, Moyers, Ernst, &

Amrhein, 2003; Strang & McCambridge, 2004) and mediates the relationship between

therapist behavior and outcomes (Moyers et al., 2007; Moyers et al., 2009).

The Family Check-Up

Evidence-based motivational interviewing principles provide a flexible set of

strategies for increasing families' motivation and confidence to address challenging

issues. These strategies can be applied across intervention contexts and can be

implemented as part of any treatment program. In this section, we describe a structured

intervention that integrates aspects of motivational interviewing methods and parent

engagement strategies called the Family Check-Up (FCU).

The FCU is a brief assessment and feedback intervention that is based on MI principles and is designed to increase parental awareness of their child's risk behaviors and provide support for reducing those behaviors (Dishion & Kavanagh, 2003). The feedback portion is supported by evidence that providing psychological assessment feedback to families increases motivation to change (Sanders & Lawton, 1993). Research supports its effectiveness in reducing child disruptive behavior (Gardner et al., 2009; Shaw, Dishion, Supplee, Gardner, & Arnds, 2006), child and adolescent internalizing symptoms (Connell & Dishion, 2008; Shaw, Connell, Dishion, Wilson, & Gardner, 2009), adolescent substance use (Connell, Dishion, Yasui, & Kavanagh, 2007), mothers' depression (Shaw et al., 2009) and increasing parents' use of positive behavior supports with young children (Lunkenheimer et al., 2008). The FCU involves three meetings with caregivers: 1) an initial interview; 2) an ecological assessment; and 3) a feedback session. However, two-session adaptations of the FCU have collapsed session 1 and 2 into a single assessment session followed by a feedback session (Reinke, Splett, Robeson, & Offutt, 2009).

Initial Contact. Since enhancing motivation and engagement are central goals of the FCU, significant emphasis is placed on the initial contact with families. The initial contact, often beginning on the telephone, includes early rapport building and provides an opportunity to begin the development of a positive relationship between the family and the clinician. During the initial in-person meeting the clinician meets with both the parent(s) and the child in order to address logistics and develop an understanding of the overall family dynamic and individual family roles through a semi-structured interview and discussion. Engagement strategies are a vital component of this session. One family

engagement technique, called channeling, involves combining differing family member perspectives to create a neutral family-relationship perspective, in which each family member has fair representation of their point of view. Other strategies include MI techniques such as supporting parent efforts, paraphrasing and clarifying concerns, reflecting discrepancies parents are reporting in their feelings, linking their concerns to the assessment, and co-creating an optimistic outlook on the situation.

Ecological Assessment. Assessment serves a critical role in the FCU to improve collaborative decision-making between the clinician and family and as a strategy for enhancing motivation to change. Assessments are conducted across multiple domains and informants in order to capture a comprehensive picture of the child's adjustment, family context, family management, peer relationships, academic competence, and strengths and weaknesses. Acquiring information about the child's strengths is particularly important for developing a balanced case conceptualization and motivating families to be involved in intervention. Assessments typically used with families include questionnaires regarding parenting practices and child behavior. School data is obtained from teachers' reports of child behavior, and family interactions are assessed through clinician observations of structured, videotaped scenarios that family members role-play.

Feedback. The feedback session is the third meeting and may be viewed as both a brief intervention and a link to treatment. To increase families' motivation to change, the feedback is delivered in a MI style with particular attention to the previously described FRAMES model. Case conceptualization is a key component of preparation for the feedback session and focuses on four organizing principles: 1) importance of parenting to child's well-being; 2) harm reduction; 3) tailoring feedback; 4) supporting

motivation to change. First, it is important to frame assessment results as linked to potential interventions and support services (e.g., parenting groups, family therapy) in addition to discussing problem areas in terms of their impact on parenting. Second, harm reduction should be strongly considered when prioritizing family and child issues such that dangerous, crisis-level problems are addressed before discussing long-term intervention strategies. Individualized feedback includes the modification of feedback forms to summarize families' specific strength and problem areas. Finally, the fourth case conceptualization area includes supporting motivation through MI principles and use of positive feedback regarding family strengths. It is recommended that four areas of strength be described for every one problem area.

Following thorough conceptualization, the feedback session is scheduled and progresses through four phases while maintaining the overall MI "spirit". During the first phase, the clinician engages the family in a discussion about what they learned by going through the assessment process. This phase, coupled with the second phase of support and clarification, gives the clinician an opportunity to gauge initial family readiness to change and areas of overlap between the family's observations and the clinician's case conceptualization. The third phase includes the clinician's summary of information provided during the ecological assessment. Feedback is presented in a non-judgmental and non-confrontational manner, and the clinician often pauses for input from the parent(s) regarding the level of fit between the results and their own view of the family's problems. During the final phase, a menu of intervention options is collaboratively developed with goals of improving family life and child well-being. Before finishing the session, it is important for the clinicians and parent(s) to agree upon

a specific next step. Upon completion of the FCU, a formal written report is provided to outline assessment results and support parents' efforts to seek treatment as identified on the menu.

A Modified FCU for Assessment Settings

The FCU provides a model for integrating strength-based and family focused motivational interviewing into assessment feedback sessions. The nature of psychological assessments and current format already align with the FCU model. That is, routine assessment procedures already include the same general format as the FCU with time devoted to initial contact, ecological assessment, and feedback. For example, initial contact in assessment settings is made while scheduling the assessment and typically involves discussion of the referral question and problem-solving of logistics (e.g., transportation, payment). Ecological assessment in these settings aligns naturally with the FCU, consisting of interviews, observations, and questionnaires to obtain information from multiple domains. In compliance with current ethical standards, assessment feedback in these settings is provided and highlights assessment results and recommendations. Therefore, the primary modification of standard assessment practice to fit with an FCU model involves training clinicians to both interact with clients and deliver the assessment feedback in an MI-consistent manner. Other key modifications could include co-creating recommendations, establishing a written set of next steps for the client, and assessing and discussing motivation and confidence to perform those steps. Training clinicians in MI methods and providing them with FCU-type forms for delivering feedback that prompt such discussions may yield the same benefits already observed in studies that have delivered the FCU in therapeutic contexts.

Present Study

The use of assessment is an inevitable component of clinical practice, yet much work remains to develop and empirically examine assessment practices including the delivery of assessment feedback. Given the need for evidence-based assessment procedures and the recent shift towards viewing assessment as therapeutic, research extending empirically supported feedback styles to clinical assessment practice is warranted. Empirical work in this area could provide critical information to bridge the gap between current psychological assessment practices and evidence-based interventions. The FCU is a model example of combining assessment and feedback while concurrently addressing the importance of family engagement and reducing treatment barriers; evidence demonstrates its effectiveness for reducing youth's emotional and behavioral problems. The purposes of the present study, Project ARCHES: Aiming to Reach Children through Helpful Evaluation Services, were threefold: 1) to develop a family-focused assessment feedback process using principles from the evidence-based Family Check-Up intervention, 2) to train student clinicians to implement feedback sessions, and 3) to evaluate both feedback and training procedures.

Research Question 1 (RQ1): Will clients and clinicians perceive the modified FCU-style feedback as an acceptable, feasible, and socially valid intervention?

> **Hypothesis 1 (H1):** Clients will report that the intervention is helpful, effective, and non-intrusive.

> **Hypothesis 2 (H2):** Clinicians will report that the intervention is important, effective, non-intrusive.

Hypothesis 3 (H3): Clinicians will report that the intervention fit well with
standard clinic practices and required a reasonable amount of resources.

Research Question 2 (RQ2): Will clinicians trained in MI (i.e., formal training,
mentorship, and supervision) develop a sense of self-efficacy in those skills and use them
during feedback sessions with evaluation clients?

Hypothesis 4 (H4): Clinicians' MI self-efficacy will significantly increase from
before training to after implementation.

Hypothesis 5 (H5): Clinicians' self-assessment of MI skills will significantly
improve from their first feedback session to their final feedback session.

Hypothesis 6 (H6): Clinicians trained in motivational interviewing using a model
of formal training, mentorship, and supervision will demonstrate significantly
more MI-consistent language than MI-inconsistent language during their feedback
session(s).

Hypothesis 7 (H7): Clinicians' MI self-efficacy will be significantly related to
the frequency of MI-consistent language in their feedback sessions.

Research Question 3 (RQ3): Will parental motivation to change increase during the
course of the assessment process?

Hypothesis 8 (H8): Parental motivation to change will significantly increase
from the evaluation date to the feedback date.

Research Question 4 (RQ4): Will clinicians' behaviors affect the probabilities of
different types of subsequent client speech?

Hypothesis 9 (H9): MI-consistent language will be the clinician behavior most
likely to result in subsequent client change talk.

Hypothesis 10 (H10): MI-inconsistent language will be the clinician behavior

most likely to result in subsequent client counter-change talk.

CHAPTER II

Method

Participants

Five clinician and 10 client participants were recruited from the University of Missouri (MU) Assessment and Consultation Clinic (ACC). MU ACC provides comprehensive psychological services to children, adults, families, schools, and communities throughout central Missouri. Services include individual, group, couples, and family counseling as well as consultation and program evaluation. Two psychologists and eight interdisciplinary advanced graduate clinicians (i.e., counseling psychology, school psychology, clinical psychology, special education) at MU ACC also conduct over 400 comprehensive evaluations per year. The graduate clinicians are responsible for four evaluations for each semester of service at MU ACC, approximately three-quarters of which constitute evaluations of children ages 6 to 17. Common referral sources include the Children's Division, Boys and Girls Town of Missouri, local mental health providers, and self-referred. Upon completion of the evaluation and psychological report, guardian(s) participate in a feedback session to discuss the findings.

Eligible clinician participants included any graduate clinician who: 1) was enrolled in the MU ACC Interdisciplinary Child and Family Practicum during the 2010-2011 academic year; 2) was willing to participate (i.e., signed consent form, see Appendix A); and 3) successfully completed required training model for assessment feedback sessions (described below). During the fall orientation for the year-long Interdisciplinary Child and Family Practicum at MU ACC, potential clinician participants received a brief (i.e., 10 minute) overview and description of the upcoming study by the

student investigator. Clinicians were invited to participate and signed consent forms prior to the practicum trainings on MI and assessment feedback. All eligible clinicians agreed to participate in the study. Clinician participants included three doctoral and two master's-level graduate students pursuing degrees in counseling psychology ($n = 4$) and school psychology ($n = 1$). The three doctoral students reported completion of previous practicum experiences; however, the Interdisciplinary Child and Family Practicum was the first applied clinical experience for both master's students. Two clinicians reported previous applied experiences with MI. One clinician reported previous applied experience with the FCU. In terms of demographics, clinicians reported their ethnicities as Asian ($n = 2$), biracial (i.e., African American and Caucasian, $n = 1$), and Caucasian ($n = 2$). Both Asian clinicians reported English as a second language. Four of the graduate clinicians were female.

Eligible client participants for this study included children (ages 6 to 17) and their primary caregivers(s) who were: 1) living together OR separated but had a plan for reunification in the next three months; 2) referred to MU ACC for a psychological evaluation; 3) assigned to the caseload of an eligible, trained graduate clinician, and 4) willing to participate (i.e., signed consent and assent forms, see Appendices B-E). At the time of their scheduled evaluation, eligible client participants were notified by the student investigator of the opportunity to participate in a study aimed at developing more effective assessment feedback strategies (see Appendix F for recruitment scripts). It was made clear to both the guardian(s) and child that they would receive their scheduled evaluation services regardless of participation. Differences between standard evaluations and study evaluations were noted at this time: 1) one additional child measure (10

24

minutes); 2) three additional guardian measures (20 minutes total); 3) previously optional

taping of the feedback session was required; 4) data obtained during the evaluation and

feedback was de-identified and used for research purposes. Interested guardians and

children reviewed and signed the consent form with the student investigator. Of the 11

clients eligible for the study, 10 child/guardian dyads agreed to participate. Eight of the

10 consented participants completed feedback sessions that were coded for analysis. One

participant did not complete an in-person feedback session due to living two hours away

from the clinic. The other participant completed a feedback session with more than one

family member present. Since the code was designed for dyadic interactions and the

other seven sessions only included one family member, this session was not coded for the

current analyses.

Client participants included 10 children ages 5-15 ($M = 9.75$, $SD = 3.72$) and their

female caregivers. Child participants were Caucasian ($n = 6$), African American ($n = 1$),

and biracial (i.e., African American and Caucasian, $n = 3$; Hispanic and Caucasian, $n = 1$). Six of the children were female. All 10 children were living with their caregivers at

the time of their psychological evaluations and feedback sessions. Caregivers included

adoptive parents ($n = 4$), foster parents ($n = 3$), and biological parents ($n = 3$). Seven

caregivers were currently married and eight reported completing at least some college.

Diagnoses resulting from the child psychological evaluations included Attention Deficit

Hyperactivity Disorder ($n = 6$), Posttraumatic Stress Disorder ($n = 5$), Oppositional

Defiant Disorder ($n = 5$), Conduct Disorder ($n = 1$), Major Depressive Disorder ($n = 1$),

Generalized Anxiety Disorder ($n = 1$), and Dysthymic Disorder ($n = 1$). Eight children

had more than one Axis I diagnosis.

Measures

Clinician Training and Demographic Form. This measure (Appendix G) requested clinician information regarding gender, ethnicity, education level (e.g., M.Ed., B.A.), level of degree presently seeking, previous practicum placements, previous MI training, and previous FCU training.

Training Evaluation Form. On this measure (Appendix H), open-ended and Likert-type questions asked for clinicians' perceptions of the utility and helpfulness of the practicum trainings.

Motivational Interviewing Self-Efficacy Questionnaire (MISE). The MISE (Appendix I) was developed for use in the present study using Bandura's (2006) guidelines for constructing self-efficacy scales. The MISE measured clinicians' confidence to utilize MI principles and skills during feedback sessions and included 5 domains: Efficacy to Express Empathy, Efficacy to Develop Discrepancy, Efficacy to Roll with Resistance, Efficacy to Support Parent Self-Efficacy, and Efficacy to Use Specific MI Skills. Clinicians rated each of the 17 items on an 11-point Likert scale, ranging from 0 ("not at all confident") to 10 ("extremely confident"). An example of an item in this scale is: "Rate your degree of confidence… Avoid judging, criticizing, or blaming the parent." A total self-efficacy score was calculated by taking the mean of the summed items. Internal consistency ranged from .51 to .90 for the total score.

MI Clinician Self-Assessment Form. The MI Clinician Self-Assessment form (Appendix J) asked clinicians to rate a variety of their MI-consistent and MI-inconsistent behaviors on a scale from 1 (not at all, never used the strategy) to 7 (extensively, use of

the strategy almost the entire session) following an MI session. Internal consistency of this scale was .72.

Client Demographic Form. This measure (Appendix K) requested demographic information from the caregiver of the child client. The caregiver provided information such as household income, marital status, employment, education level, and ethnicity. The collection of client demographic information was part of the standard evaluation services provided by MU ACC, but was formalized through the inclusion of this form.

Behavioral Assessment System for Children, Second Edition (BASC-2). The BASC-2 (Reynolds & Kamphaus, 2004) is a multiple informant, multidimensional assessment. The Parent Rating Scale (PRS), Self-Report of Personality (SRP), and Teacher Rating Scale (TRS) were used for both the psychological report and conceptualization of feedback. The PRS and TRS have three forms that cover ages 2-5, 6-11, and 12-21. The SRP also has two forms that cover ages 8-11 and 12-21. A Self-Report Interview is available for children ages 6-7. Internal consistency ranges from .70 to .88 for the PRS, .67 to .90 for the SRP, and .75 to .97 for the TRS. Test-retest reliabilities range from .65 to .89 for the PRS and .63 to .97 for the SRP. Content, construct, and criterion-related validities of the BASC-2 scales are satisfactory. The BASC-2 scales were a part of the standard evaluation services provided by MU ACC.

Behavioral and Emotional Rating Scale, Second Edition (BERS-2). The BERS-2 (Epstein, 2004; Epstein & Sharma, 1998) is a multiple informant, multidimensional measure of behavioral and emotional strengths through five subscales: Interpersonal Strengths, Family Involvement, Intrapersonal Strengths, School Functioning, and Affective Strengths. The Parent Rating Scale (PRS) is appropriate for

parents of children ages 5-18 and was used for both the psychological report and conceptualization of feedback. As indicated in the manual, the Youth Rating Scale (YRS) was used for child participants between the ages of 11-18. Test-retest reliabilities of the subscale scores range from .82 to .92 for the PRS and .84 to .91 for the YRS. Content, construct, and criterion-related validities of the BERS-2 scales are satisfactory (Epstein, 1999; Epstein, Cullinan, Ryser, & Pearson, 2002). The BERS-2 was part of the standard evaluation services provided by MU ACC.

Parent Behavior Inventory (PBI). The PBI (Lovejoy, Weis, O'Hare, & Rubin, 1999) is a brief measure of parenting behavior for use with parents of preschool or young school-age children. Confirmatory factor analysis supports two dimensions of parenting assessed with the PBI: hostile/coercive and supportive/engaged (Lovejoy et al., 1999). Research on the PBI has shown adequate stability of scores over a 1-week interval (r = .74 and .69 for the supportive/engaged and hostile/coercive scales, respectively). Content validity for the PBI is supported by the ratings of experts in child development and parenting. The PBI, especially the hostile/coercive scale, meaningfully correlates with measures of child behavior problems and parenting stress (Weis & Lovejoy, 2002). In the present study, the PBI was administered to all guardians as well as child participants above six years of age. Internal consistency for the PBI child-report was .70. The parent-report of the PBI demonstrated improved internal consistency (Cronbach's α =.82).

Modified Parent Motivation Inventory (PMI). The PMI (Nock & Photos, 2006; Appendix L) is a 25-item self-report measure of parent treatment motivation on a five-point scale (1 = strongly disagree; 5 = strongly agree). Items were generated to

correspond with three main components of motivation, including: Desire for child change (e.g., "I want my child's behavior to improve"), Readiness to change parenting behavior (e.g., "I am willing to change my current parenting techniques and try new ones"), and Perceived ability to change parenting behaviors (e.g., "I believe that I am capable of learning the skills needed to change my child's behavior"). The language of seven items was modified to fit the purpose and setting of the present study. The original PMI has sufficient internal consistency (Cronbach's α =.96) and test-retest reliability (r =.76, $p <$ .001). Internal consistency in the present study ranged from .88 to .94.

Parent Acceptability/Feasibility/Social Validity Form. Guardian(s) completed a form (Appendix M) of Likert-type and open questions about their perceptions of the assessment and feedback experience. Questions included perceptions of the importance, effectiveness, intrusiveness of the intervention.

Clinician Acceptability/Feasibility/Social Validity Form. This measure (Appendix N) asked Likert-type and open questions regarding areas such as the ease of implementation, effectiveness, fit with clinicians' style and theoretical orientation, and fit between the intervention and clinic practices goals and values.

Project ARCHES MI Coding System. The MI coding system used in the present study was adapted from the Motivational Interviewing Sequential Code for Observing Process Exchanges coding instrument (MI-SCOPE; Moyers & Martin, 2006). The MI-SCOPE was developed to evaluate relationships between MI-specific clinician behaviors and subsequent client responses with particular emphasis on the sequential information contained within the interaction between parties. Forty-six behaviors may be assessed using the MI-SCOPE (i.e., 30 for the therapist and 16 for the client); however,

since other researchers have had difficulty acquiring the minimum number of instances in each category to make them statistically meaningful, only six recommended categories were used to develop the code for the present study (Moyers & Martin, 2006). These included three clinician codes (i.e., MI-consistent, MI-inconsistent, other) and three client codes (i.e., change talk, counter-change talk, follow/ask).

The full operational definitions for each code including a list of specific coding rules are available in Appendix O. MI-consistent clinician language included instances of advising (with permission), affirming, emphasizing control, open questioning, reflecting, or supporting. An example of an MI-consistent clinician statement was, "What do you hope to gain from today's meeting?" MI-inconsistent language included instances of advising (without permission), confronting, directing, offering opinion, and warning. For example, "You need to make sure she is taking appropriate medication every day." Clinician language categorized as other included closed questioning, providing feedback, offering general information, raising concerns, self-disclosing, and providing structure. The other category also included all language that was not codeable elsewhere.

Client change talk and counter-change talk included statements about changing or maintaining target behavior, respectively. These statements consisted of any language that expressed commitment, desire, ability, need, reasons, or taking steps with regard to changing or maintaining target behavior. Change and counter-change talk also included problem recognition or denial as well as any other statements not included in these sub-categories that reflected change or maintenance of a target behavior. Change talk consisted of statements such as, "We need to help her and have her behaviors diminish so

everyone feels comfortable." In contrast, counter-change talk included statements such as, "There are factors outside of our control that we can't do anything about." Target behaviors were defined as all behaviors or factors, both individual and systemic, which may have the potential to impact social, emotional, behavioral, or academic functioning of the child client. The third client code, follow/ask, consisted of any questions posed to the clinician and statements unrelated to target behavior.

Procedures

All procedures followed ethical guidelines in accordance with the American Psychological Association (APA, 2002) and received the approval of the University of Missouri Institutional Review Board (see Appendix P).

Phase 1: ARCHES Development. Before initiation of recruitment, the student investigator developed a brief ARCHES manual under the supervision of her MU ACC supervising psychologist (i.e., Connie M. Brooks, PhD) and dissertation supervisor (i.e., Keith C. Herman, PhD). The ARCHES manual outlined standardized procedures for client recruitment, caregiver and child interviews and assessments, feedback preparation and conceptualization, and feedback facilitation. Within the manual, the FCU was modified to fit with MU ACC standard evaluation practices. A feedback summary form, frequently asked questions form, and child/caregiver interview outlines were finalized during this time and approved by the MU ACC supervising psychologist. The feedback summary form served as a concise, visual representation of assessment results that placed key client areas on a continuum from strength to weakness. The form was developed to guide the delivery of feedback and also contained prompts for discussion of the results.

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The frequently asked questions form was developed based on technical questions commonly asked during assessment feedback sessions at MU ACC.

Phase 2: Clinician Training. Graduate clinicians' training on the FCU-style assessment feedback consisted of three formal trainings, use of the MU ACC mentorship model, and ongoing supervision and coaching. Prior to the present study, the student investigator had previous experience in both MI and FCU. She had completed 80 hours of Basic and Advanced MI Training given by a Motivational Interviewing Network of Trainers trainer. Further, she implemented those skills as a part of a counseling intervention for a randomized clinical trial: *Smoking Cessation in College Fraternities and Sororities* ("MU Greek Health Project"). She had also spent four semesters implementing and receiving ongoing training and supervision for the FCU. Her dissertation supervisor served as the primary consultant for MI and FCU given his extensive experience in those areas. The MU ACC supervising psychologist served as the primary consultant for standard clinical practices and training.

During the 2010-2011 academic year, all clinicians enrolled in the practicum at MU ACC were required to attend a weekly 2.5-hour course that consisted of both training and supervision. Standard training sessions lasted approximately 45 minutes, and examples of scheduled training topics included MU ACC evaluation procedures, introduction to the foster care system, and mandated reporting. Since delivery of assessment feedback is a core component of MU ACC training, all graduate clinicians, regardless of enrollment in the current study, received two separate trainings on motivational interviewing and strengths-based (FCU-style) assessment feedback as a part of the regular fall practicum course. One training session was also conducted at the

beginning of the spring semester to refresh clinicians on MI and feedback delivery skills. All trainings included didactic and experiential components. All clinicians received specific feedback on their MI and feedback skills during trainings. Video examples of FCU-style feedback were produced during the trainings for clinicians to consult while preparing for future feedback sessions.

In addition to the formal trainings conducted during the practicum course, clinicians participated in the mentorship model that MU ACC applies for training in most areas of clinical skills development. That is, clinicians began by observing advanced clinicians or psychologists, then co-led services, and finally delivered services independently with weekly supervision. Specifically for training on FCU-style assessment feedback, clinicians first observed the student investigator, then co-led a feedback session with the student investigator, and finally facilitated feedback sessions independently. Clinicians progressed through each phase of training with the approval of both the student investigator and supervising psychologist.

Supervision, both group and individual/dyad, is central to all training at MU ACC and functioned in tandem with the mentorship model. Throughout the mentorship model progression, clinicians engaged in supervision that allowed them to ask questions and verbally process their clinical experiences. Group supervision for the practicum course lasted approximately one hour per week. During this time, clinicians discussed counseling clients as well as upcoming and completed evaluations. As scheduled feedback sessions approached, clinicians at all levels of the mentorship process were encouraged to use a portion of supervision time to confer with supervisors and other clinicians to develop a case conceptualization, complete the assessment feedback

summary form, and plan for the meeting. Bi-weekly individual and bi-weekly dyad supervision time was used to supplement FCU-style feedback training as needed. When time did not permit feedback planning during group or individual/dyad supervision, the student investigator met individually with clinicians to consult regarding conceptualization. After each videotaped feedback session, the student investigator provided written feedback to clinicians' regarding their MI skills and feedback facilitation.

Graduate clinicians enrolled in the study participated in the training described above and completed various measures throughout the training phase of the study. Immediately before the first scheduled study-related training (i.e., MI), enrolled clinicians completed the Clinician Training and Demographic Form. Clinicians also completed the MISE both before and after the MI training. At the conclusion of the first two trainings, clinicians completed the Training Evaluation Form.

Phase 3: Implementation. The implementation phase of the study began as each eligible clinician completed the training phase and was deemed competent by both the student investigator and supervising psychologist to implement feedback sessions independently. Competence was marked by participation in trainings and in the preparation, observation, and co-facilitation of feedback sessions (i.e., two total sessions). At that time, clinicians completed another MISE form and the student investigator began recruiting the clinicians' eligible evaluation clients for study participation.

On the date of a scheduled evaluation, clinicians began by reviewing required paperwork with the guardian(s). This standard paperwork included a consent to services, which contained description of limits to confidentiality, notification of privacy practices

in accordance with HIPAA, statement of financial responsibility for the evaluation services, optional consent to taping, and releases of information. The student investigator was available on all scheduled evaluation dates to discuss the study with eligible clients after completion of this paperwork. This meeting included an overview with a recruitment script and a review of the guardian consent and child assent forms. Upon signature of these forms, the client and guardian(s) were officially enrolled in the study. Copies of consent and assent forms were provided to the guardian(s). If the guardian or child did not wish to participate, the evaluation continued as scheduled. Standard evaluation procedures continued after the consent process and included interviews and testing (e.g., personality measures, cognitive measures). The BASC-2 and BERS-2 were standard evaluation measures; however, participation in the study also required the completion of the PBI and PMI by the guardian(s) and completion of the PBI by the child. These forms added approximately 20 minutes to the total evaluation time.

The feedback sessions were scheduled for 4 weeks after the completion of the evaluation, and when possible, scheduling occurred before the child and guardian(s) left the clinic. To prepare for the feedback sessions, graduate clinicians wrote their psychological reports and worked with their supervisor during group, individual, and/or dyad supervision to conceptualize the information for feedback. All reports contained the following sections: referral question, records review, clinical interview(s), assessment scores and interpretation, behavioral observations, diagnostic conclusions, and recommendations. The foci of conceptualization, as indicated by the FCU and outlined in the ARCHES manual, were parenting practices, harm reduction, tailoring feedback, and supporting motivation to change.

None of the nine guardians participating in the study brought their children to the feedback session. Therefore, children were not involved in the feedback process. The feedback sessions were videotaped and conducted in four phases as outlined by the FCU developers and ARCHES manual: 1) discussing what the guardian learned during this process; 2) providing support and clarification; 3) presenting assessment information with use of the feedback summary form; and 4) reviewing the recommendations ("menu of options"). Before the guardian left the feedback session, a specific next step was identified, and motivation, confidence, and potential barriers to completing that step were discussed. Throughout the sessions, guardians were encouraged to ask questions. Also, a frequently asked questions sheet (e.g., what is a *T*-score, what is a validity scale, etc) was provided. Once the session was finished, the guardian completed the PMI and Parent Acceptability/Feasibility/Social-Validity Form. Clinicians completed the MI Clinician Self-Assessment form at the conclusion of each feedback session.

At the end of the implementation phase, clinicians completed a final MISE and a Clinician Acceptability/Feasibility/Social-Validity Form.

Phase 4: Coder Training and Videotape Coding. While the MI-SCOPE suggests the use of transcribed sessions to code parsed utterances, the present study utilized the Multi-Option Observation System for Experimental Studies software program (MOOSES; Tapp, Wehby, & Ellis, 1995) to collect and analyze clinician and client language data from videotaped feedback sessions. MOOSES was selected as the preferred data collection mechanism in order to increase efficiency of both coding and data analysis. Two doctoral graduate student coders were trained to an 80% interobserver agreement criterion for the MI Coding System using handheld electronic data collection

devises loaded with MOOSES software. Training included eight meetings to review and modify the MI Coding System, code selections of videotape using MOOSES, and discuss coding rules including examples and non-examples. Coding of participant feedback sessions began after the completion of these trainings and upon meeting the interobserver agreement criterion. Each coder was then randomly assigned to code five of the eight participant videotapes. Therefore, two videos (25%) were double-coded for reliability analyses.

For the two sessions that were double-coded, reliability measures are provided in Table 1. Percent agreements for the two individual sessions were 84.97 and 90.52. Overall kappa values for the individual sessions were .79 and .87 with kappa values for individual codes ranging from .50 (i.e., counter-change talk, session 1) to 1.00 (i.e., change talk, session 1; MI-inconsistent, session 2; counter-change talk, session 2). According to Bakeman and colleagues (1997), there are several considerations for the interpretation of kappas for sequential reliability including the number of codes and the variability of codes' simple probabilities. Bakeman et al. suggest that an overall kappa of approximately .50 represents an acceptable agreement between coders when six codes are used with moderate variability of simple probabilities.

Design and Analysis

The data in this study were analyzed using *t*-tests, bivariate correlation, and sequential analysis. A discussion of how each of these methods were used to test the previously stated hypotheses is presented here as well as an in-depth description of sequential analysis techniques. The alpha level for all statistical analyses was set at .05 with two-tailed tests conducted on the data.

RQ1. H1 (i.e., clients will report that the intervention is helpful, effective, and non-intrusive), H2 (i.e., clinicians will report that the intervention is important, effective, non-intrusive), H3 (i.e., clinicians will report that the intervention fit well with standard clinic practices and required a reasonable amount of resources) were assessed through a discussion of the results from the Parent and Clinician Acceptability/Feasibility/Social Validity forms.

RQ2. H4 (i.e., clinicians' MI self-efficacy will significantly increase from before training to after implementation) was assessed using dependent *t*-tests in order to examine the specific prediction of differences between clinicians' MI self-efficacy ratings over time. H5 (i.e., clinicians' self-assessment of MI skills will significantly improve from their first feedback session to their final feedback session) was assessed using a dependent *t*-test in order to examine the specific prediction of differences between clinicians' self-assessment of MI skills over time. H6 (i.e., clinicians trained in motivational interviewing using a model of formal training, mentorship, and supervision will demonstrate significantly more MI-consistent language than MI-inconsistent language during their feedback session(s)) was assessed using a dependent *t*-test in order to examine the specific prediction of differences between frequencies of utterance codes. H7 (i.e., clinicians' MI self-efficacy will be significantly related to the frequency of MI-consistent language in their feedback sessions) was assessed using bivariate correlation in order to examine the prediction that MI self-efficacy and MI-consistent language in-session will significantly covary.

RQ3. H8 (i.e., parental motivation to change will significantly increase from the evaluation date to the feedback date) was assessed using a dependent *t*-test in order to

examine the specific prediction of differences between guardian(s)' motivation to change over time.

      RQ4. H9 (i.e., MI-consistent language will be the clinician behavior most likely to result in subsequent client change talk) and H10 (i.e., MI-inconsistent language will be the clinician behavior most likely to result in subsequent client counter-change talk) were assessed using sequential analysis. Bakeman and Gottman (1997) state that the goal of sequential analysis is to analyze events (e.g., social interactions) as situated in time, rather than at a single point in time. This type of analysis enables a researcher to determine, for example, the likelihood that a particular behavior by Person A will follow a particular behavior by Person B. For purposes of this study, measures of interest were the transition probabilities between clinician (i.e., MI-consistent, MI-inconsistent, other) and client (i.e., change talk, counter-change talk, follow/ask) behavioral categories. A transition probability is a conditional probability relating the state of a system (i.e., a feedback session) at some time (t1) to its state at another time (t2), where the difference between t1 and t2 is termed the lag. The primary question answered through sequential analysis was whether types of client speech are more likely to occur when preceded by MI-consistent or MI-inconsistent clinician behavior for lag 1 within an assessment feedback session.

      Since the total number of cells in this study was 36 (i.e., 6 X 6) and the expected frequency of any transition should be at least five to obtain reliable estimates of transition probabilities (Wickens, 1982), the *minimum* suggested number of transitions was 180. Ten client participants were sought in this study in order to exceed the minimum transitions for analysis. While ten participants were successfully recruited, only eight

yielded feedback session videos for coding. The dataset of eight coded sessions yielded

1438 transitions unevenly distributed among the 6 categories of the coding system. Since

22% of the expected frequencies of the transition matrix in the present study were less

than five, results for these transitions are interpreted with caution. This particularly

applies to transitions involving MIIN codes given that they occurred infrequently.

H9 and H10 were assessed using sequential analysis to determine transition

probabilities between clinician and client behavior. The MOOSES software program

(Tapp, Wehby, & Ellis, 1995) was used to describe and analyze the data series, including

the simple frequencies of clinician and client utterances and the sequential dependencies

between clinician and client utterances. Significances tests of the individual transition

probabilities were carried out using Yule's Q (Bakeman & Gottman, 1997).

Yule's Q scores are transformed from an odds ratio computed from a 2×2

contingency table. An example 2×2 contingency table for an antecedent/given event

(i.e., MICO) and subsequent/target event (i.e., CT) is provided in Table 2. In this table, A

represents the frequency of instances when CT followed MICO. B represents the

frequency of instances when MICO was followed by any other code. Yule's Q is derived

using the following formula: $(AD - BC)/(AD + BC)$.

Yule's Q scores control for differences in the frequencies of target behavior and

indicate whether the sequential relationship was larger or smaller than an estimate of the

chance occurrence of the two-event sequence of interest. Similar to correlation

coefficients, Yule's Q ranges from -1 to +1 with a value of 0 indicating independence. A

positive Yule's Q reflects instances when the target behavior (e.g., client change talk)

occurs after the given behavior (e.g., MI-consistent clinician language) more often than

expected by chance. When a target behavior occurs after the given behavior less often than expected by chance, Yule's Q is negative. Allison and Liker (1982) *z* scores were used to test the significance of the Yule's Q associations.

CHAPTER III

Results

Descriptive Statistics

Means, standard deviations, and zero-order correlations for client and clinician measures are presented in Table 3 and Table 4, respectively. Child age and parents' perceived acceptability, feasibility, and social validity were positively associated with parents' motivation to change after feedback sessions. Parent report of supportive/engaged parenting was positively associated with perceived child strengths. Mean T scores on the BASC-2 Parent Rating Scale were at an at-risk level for both externalizing ($M = 68.20$, $SD = 13.80$) and internalizing problems ($M = 61.20$, $SD = 19.39$). Similarly, the mean BERS-2 Strengths Index from the Parent Rating Scale was below average ($M = 83.75$, $SD = 13.51$). Mean T scores of externalizing ($M = 55.71$, $SD = 9.83$) and internalizing problems ($M = 52.43$, $SD = 11.44$) on the BASC-2 Teacher Rating Scale were average.

In terms of clinician measures, ratings of the second training session (i.e., MI Part II and Introduction to ARCHES feedback) were positively associated with post-training ratings of MI self-efficacy. Pre-training rates of MI self-efficacy were positively associated with mean scores of clinicians' self-assessment of MI skills during feedback sessions. With regard to clinician and client language in feedback sessions, clinicians' pre-training ratings of MI self-efficacy were positively associated with client change talk and clinicians' use of MI-inconsistent language was negatively associated with clinicians' perceptions of acceptability, feasibility, and social validity.

Table 5 shows the number of coded feedback sessions, mean session length, and mean rate of clinician [i.e., MI-consistent (MICO), MI-inconsistent (MIIN), other (O)] and client [i.e., change talk (CT), counter change talk (CCT), follow/ask (F/A)] codes for each participating clinician. Every clinician completed at least one feedback session that was subsequently coded. One clinician completed three sessions and two clinicians completed two sessions. However, the second session for participant three was not coded due to the presence of additional family members during the feedback session. The most common category of clinician language across all sessions was O with a mean rate of 1.19 instances per minute. MIIN was the least common category of clinician language with a mean rate of .06 instances per minute. For client language, CT ($M = .67$ instances/minute) and F/A ($M = .61$ instances/minute) were the most and least common categories, respectively.

Data Analysis

Acceptability, feasibility, and social validity (RQ1). Overall, parents who participated in feedback sessions indicated that it was important ($M = 3.78$, $SD = .44$; range = 1 - 4), effective ($M = 3.44$, $SD = .73$), non-intrusive ($M = 3.67$, $SD = .71$), reasonable ($M = 3.77$, $SD = .67$), and helpful ($M = 3.77$). One parent reported that the sessions provided an "excellent balance of 'big picture' and specific strategies." Other parents indicated that they appreciated the opportunity to develop "…a clear understanding of what the diagnosis means in regards to my child…" and receive "…the results of the report in the one page summary that was easy to understand."

Similarly, clinicians conducting feedback sessions reported that it required a reasonable time commitment ($M = 4.60$, $SD = .25$; range = 1 - 5), was easy to implement

(M = 4.00, SD = .00), fit with their theoretical orientation (M = 4.20, SD = .20), matched

the cultural needs of the families (M = 4.20, SD = .37), and fit with goals and values of

the MU ACC (M = 4.80, SD =.20). Clinicians also indicated that feedback sessions

increased the likelihood that families would implement evaluation recommendations (M

= 4.00, SD = .32) as well as the chances of helping families (M = 4.80, SD = .20). One

clinician stated that the benefits of feedback sessions included the ability to "motivate

caregivers to implement recommendations, give feedback more structure, and make

feedback sessions more like intervention sessions instead of information-delivering

sessions." Another clinician reported that she "liked that the feedback sessions are very

collaborative…" Additionally, one clinician stated, "The focus was on families, making

the feedback session warm and more relevant."

Clinicians' MI self-efficacy, perceived MI skills, and in-session language

(RQ2). Clinicians' MI self-efficacy significantly increased from before trainings (M =

6.10, SD = .99) to after trainings (M = 8.01, SD = .66; $t_{(4)}$ = -3.38, p < .05, d = -1.50) as

well as to before each clinicians' final feedback session (M = 8.11, SD = .56; $t_{(4)}$ = -3.15,

p < .05, d = -1.41). For the three clinicians who completed more than one feedback

session, clinicians' self-assessment of MI skills did not significantly increase from their

first feedback (M = 4.97, SD = .67) to their final feedback session (M = 5.03, SD = .69;

$t_{(2)}$ = -.40, ns , d = -.23). Clinicians demonstrated significantly more MI-consistent

language (M = 1.09, SD = .45) than MI-inconsistent language (M = .05, SD = .06)

during their feedback sessions ($t_{(7)}$ =6.51, p <.001 , d = 2.30). Clinicians' reported MI

self-efficacy prior to feedback sessions (M = 7.83, SD = .58) was not significantly

related to their subsequent use of MI-consistent language in session ($M = 1.09$, $SD = .45$; $r_{(6)} = -.45$, ns).

Parental motivation (RQ3). Parents' reported motivation to change significantly increased from the date of evaluation ($M = 4.03$, $SD = .48$) to after the feedback session ($M = 4.44$, $SD = .45$; $t_{(8)} = -2.786$, $p < .05$, $d = -.93$). Of the 9 participants who completed the feedback session, 89% reported increased motivation. The average increase in parents' motivation scores was 12.44%.

Sequential analysis of clinician and client language (RQ4). Transition frequencies and marginal frequencies are presented in Table 6. Rows represent initial events and columns represent subsequent events. Each cell represents the number of instances that an initial event was followed by a subsequent event within the longer sequence of exchanges between the clinician and client. For example, the frequency of clinician MICO immediately followed by client CT is determined by identifying the intersection of the row for MICO and column for CT, or 173 instances.

Transition probabilities are presented in Table 7. Similar to Table 6, initial events are in rows and subsequent in columns. For instance, the probability of CT once a clinician MICO statement has occurred is .45. That is, CT will follow MICO approximately 45% of the time. Several transitions occurred more frequently than would be expected by chance. MICO utterances were more likely to be followed by client CT (Yule's $Q = .75$, $Z = 12.37$, $p < .001$) and less likely to be followed by clinician O statements (Yule's $Q = -.63$, $Z = -8.05$, $p < .001$). Clinician O was more likely to be followed by client F/A (Yule's $Q = .78$, $Z = 11.80$, $p < .001$) or additional clinician O (Yule's $Q = .18$, $Z = 2.56$, $p < .05$). Client CT (Yule's $Q = -.63$, $Z = -6.66$, $p < .001$),

client CCT (Yule's Q = -.46, Z = -2.57, p < .05), or clinician MICO (Yule's Q = -.44, Z = -5.43, p < .001) followed clinician O less often then would be expected by chance. Client CT was more likely to be followed by clinician MICO (Yule's Q = .67, Z = 10.78, p < .001) and less likely to be followed by clinician O (Yule's Q = -.38, Z = -4.50, p < .001) or client F/A (Yule's Q = -.92, Z = -6.87, p < .001). Client CCT was followed by additional CTT (Yule's Q = .58, Z = 3.89, p < .001) more likely than expected by chance and F/A (Yule's Q = -.87, Z = -3.42, p < .001) less likely than expected by chance. Finally, client F/A was more likely to be followed by clinician O (Yule's Q = .75, Z = 12.22, p < .001) and less likely to be followed by clinician MICO (Yule's Q = -.26, Z = -2.73, p < .01), client CT (Yule's Q = -.68, Z = -5.47, p < .001), or client F/A (Yule's Q = -.75, Z = -5.32, p < .001).

CHAPTER IV

Discussion

This study was the first to develop and pilot a child psychological evaluation feedback process based on the principles of the evidence-based Family Check-Up intervention. The feedback procedure implemented with parents of child clients was evaluated through acceptability and feasibility ratings from both clinicians and parents as well as parent ratings of treatment motivation. Additionally, this study implemented a clinician training protocol and examined clinicians' self-efficacy and MI skills over time. Using sequential analysis, the bi-directional influence of clinician and client behavior related to motivational interviewing during feedback sessions was examined.

Findings from this study supported hypotheses regarding the acceptability, feasibility, and social validity of the feedback sessions. Overall, parents indicated that feedback sessions were important, effective, non-intrusive, reasonable, and helpful. While acceptability and client satisfaction of assessment services are seldom included in research (Mash & Hunsley, 2005; Tharinger et al., 2008), these results are comparable to the positive perceptions expressed by parents participating in other forms of collaborative assessment feedback (Tharinger et al., 2009). Clinicians reported that sessions were easy to implement, fit their theoretical orientation, matched the cultural needs of the families, and fit with the goals and values of the clinic. Moreover, clinicians indicated that feedback sessions improved the likelihood of providing helpful services to families as well as families' likelihood of implementing evaluation recommendations. FCU and MI are both interventions that are tailored to fit individual clients to increase treatment engagement and motivation to change (Dishion & Kavanagh, 2003; Miller and Rollnick,

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2002). Given this flexibility of implementation as well as their demonstrated

effectiveness (Dishion & Kavanagh, 2003; Miller and Rollnick, 2002), it is not surprising

that adaptations to a naturally occurring assessment and feedback process would result in

such positive perceptions from both clients and clinicians. These encouraging results

demonstrate that integrating the FCU and MI into assessment feedback is a practical,

efficient, and well-received framework for conducting comprehensive evaluations and

warrants further study.

As hypothesized, parents who participated in the feedback sessions reported a

significant increase in treatment motivation from the time of their evaluation to after the

feedback session. Changes in client motivation, although rarely measured or studied in

parents, are an important predictor of treatment adherence and other clinical outcomes

(Nock & Photos, 2006; Patterson & Chamberlain, 1994; Stoolmiller, Duncan, Bank, &

Patterson, 1993). Nock and Photos (2006) found that increases in parents' motivation as

measured by the PMI were related to decreases in perceived barriers to treatment, which

in turn predicted increases in treatment attendance. The findings in the present study

demonstrate that parent motivation increased over time throughout the evaluation

process. While this increase in motivation cannot be attributed to the assessment

feedback process due to the lack of experimental control, it demonstrates the importance

of continuing to measure this construct not only because of its relation to other factors

that are meaningful to treatment outcomes (e.g., engagement, adherence, barriers), but

also because it is amenable to change through intervention (Miller and Rollnick, 2002).

The MI and FCU training protocol in the present study utilized a mentorship

model to foster clinicians' skill development. This approach included didactic training,

modeling and role-plays, opportunities to co-lead sessions with supervisor support, and

ongoing feedback and supervision. A review of MI training studies conducted by

Madson and colleagues (2009) indicated that MI trainings most often include these

didactic and experiential components and generally result in positive trainee-reported and

objectively measured outcomes such as increased confidence to use MI and integration of

MI in clinical practice. Similar to this review and in support of the present study's

hypotheses, clinicians in the study reported increased MI self-efficacy after the didactic

trainings and utilized more MI-consistent than MI-inconsistent language in feedback

sessions. These results cannot be directly attributed to the training protocol due to the

absence of an experimental control group and pretest of clinician language in feedback

sessions prior to the trainings; however, they do indicate that graduate student clinicians

are capable of implementing MI interventions with high rates of MI-consistent language

and subsequent client change talk when they are exposed to optimal MI training

procedures.

Before discussion of the present study's sequential analysis results, it is important

to note that findings are interpreted with caution due to expected frequencies in the

transition matrix that were less than 5 (Wickens, 1982). Despite this limitation, analyses

of the transitions between clinician and client language yielded results similar to

sequential analyses conducted by Moyers and Martin (2006) on motivational

enhancement therapy sessions for substance abuse. Clinician MICO was followed by

client CT more often than would be expected by chance and client CT was associated

with an increased probability of clinician MICO. These results suggest that once

clinicians in feedback sessions began using MICO language, clients were more likely to

discuss the desire, ability, need, or reason to change behaviors (e.g., parenting practices, communication with school, engagement in therapy) that influence their children's behavior. Further, once clients responded with CT, the likelihood that clinicians would respond by affirming, reflecting, supporting, or emphasizing control (i.e., MICO) was increased. In fact, MICO was the most likely behavior to result in CT and CT was the most likely behavior to result in MICO. In contrast to the Moyers and Martin (2006) findings, the present study did not find any significant associations between clinician MIIN and client behaviors. This difference is likely due to the infrequent occurrence of clinician MIIN during the assessment feedback sessions.

Congruent with the Moyers and Martin (2006) study, client CCT was significantly related to subsequent CCT indicating that once clients began responding with language against change of target behaviors, they were more likely to continue discussing CCT and less likely to transition to neutral topics (F/A). The significant transitions between CT and CCT found by Moyers and Martin (2006) were not replicated in the present study. While the previous study attributed the transitions between CT and CTT to client ambivalence that is often found within the change process (Miller & Rollnick, 2002; Prochaska, DiClemente, & Norcross, 1992), it is possible that parents willingly participating in comprehensive evaluations for their children are less likely than substance abuse clients to demonstrate substantial CCT or this back-and-forth pattern. That is, parents seeking evaluations to better understand their children's behaviors and identify strategies for reducing such behavior may be less likely to discuss CCT than CT during a feedback session. This pattern of greater CT than CCT is clearly seen in Table 3.

Another contrasting result that may be attributed to session context includes the associations between clinician O and client F/A. In the present study, clinician O was more likely to be followed by additional clinician O or client F/A. Moyers and Martin (2006) found that clinician O was more likely to be followed by client F/A but less likely to be followed by additional clinician O. This subtle difference may reflect the challenge of presenting comprehensive evaluation results in a MI style that utilizes clinician MICO and promotes client CT. That is, clinician feedback to clients was coded as O throughout the feedback session and during the first half of the session, included explanation of complex diagnostic decision-making that may have resulted in increased clinician O to clinician O transitions and fewer opportunities for bi-directional dialogue with motivational language. Given that it is ethically important to make sure that clients understand their evaluation results (APA, 2002; Standard 9.10), it may not be feasible to significantly reduce or remove explanations of assessment results and diagnoses. However, this may justify the inclusion of intervention action planning and use of motivational rulers before concluding an assessment feedback session. These components are not traditionally included in feedback sessions for comprehensive evaluations, but they provide an important opportunity for clinician MICO and subsequent client CT that predicts improved outcomes (Miller, Moyers, Ernst, & Amrhein, 2003; Strang & McCambridge, 2004).

Limitations

Several limitations to the present study should be noted. First, this study was exploratory and did not include any experimental controls that would allow causal conclusions about the impact of the assessment feedback sessions or clinician training

protocol. Second, the pilot nature of the study resulted in a small sample size that reduces the generalizability of results. The sample included clinicians from one university department (i.e., Educational, School, and Counseling Psychology) and clients with substantial social, emotional, and behavioral concerns. Further, parent-child dyads included biological, adoptive, and foster parents and it is unclear how these different relationships may impact participation in evaluations and engagement in feedback sessions. Consequently, results may not be generalized to the considerable diversity of parents seeking comprehensive evaluations or the clinicians and clinics that provide them. A third limitation includes the previously mentioned statistical issue of low expected frequencies within the sequential analysis transition matrix as a result of infrequent instances of clinician MIIN language. Results of the sequential analysis are interpreted with caution, but are largely congruent with previous research on the sequential dependencies of therapist and client language in MI-focused sessions.

Implications and Future Directions

The findings and implications of this pilot study highlight many meaningful avenues for future study including measurement, MI training, and modified-FCU assessment feedback. The PMI was adapted and utilized in the study to measure parent motivation over time. Results supported the validity of this measure and the extension of its use to assessment settings. Future studies should examine this measure's relation to observed parent change talk as well as subsequent child outcomes. The current study also developed and piloted a MI self-efficacy questionnaire with graduate student clinicians. The scale was sensitive to change over time and was significantly associated with related measures (i.e., self-reported MI skills, parent change talk). Research should

continue to explore the psychometrics of this measure and its relation to MI skills development in mental health graduate students and other professionals.

The present study selected and implemented training components that were in line with both current clinic practices and MI training literature regarding the importance of both didactic and experiential training components as well as ongoing supervision and coaching (Madson et al., 2009; Miller et al., 2004). However, no known studies have evaluated MI training approaches with mental health graduate students and current research varies with regard to the recommended length of training sessions (Madson et al., 2009). The efficacy of MI approaches for a variety of client concerns has led it to become a common topic within graduate coursework, yet little is known about how graduate students develop and maintain MI skills. This study demonstrated that graduate students exposed to optimal MI training procedures are capable of using MI consistent language that results in subsequent client change talk. Future studies are needed to 1) understand the development of MI competence in graduate students; 2) create reliable and valid measures of subjective and objective MI competence in graduate students; 3) develop an optimal procedure for how to include effective MI training in specific courses or practicum experiences, and 4) evaluate methods for training students on how to integrate MI practices with other empirically-supported interventions. In addition to graduate students' MI training and competence, studies are need to identify the amount and type of MI training necessary for assessment clinic staff to be able to successfully implement modified-FCU sessions. Lack of resources is often cited as a barrier to the implementation of evidence-based practices such as MI. Thus, identification of efficient

and effective methods for developing MI competence will be necessary in order to facilitate dissemination to community assessment settings.

Findings of the present study also provide preliminary support for the use of a modified-FCU approach during assessment feedback sessions. Considering that current assessment feedback practices for parents of referred children are individual- and deficit-focused (Wright & Fletcher, 1982) and often neglect critical components of parent engagement (Tharinger et al., 2008), the use of a modified-FCU approach could significantly improve the ability of comprehensive evaluation services to increase parents' motivation to change, treatment attendance, and clinical outcomes. Randomized-control studies and follow-up measures of client outcomes will be necessary in order to determine the efficacy and effectiveness of this approach within an assessment setting. Further, studies should continue to evaluate clinician and client in-session language in order to assess fidelity of the MI-focused intervention and identify the moment-to-moment impact of different components (e.g., discussion of diagnoses, recommendations, action planning) of the feedback session. While previous MI studies have demonstrated the relation between change talk and behavior change (e.g., Miller et al., 2003), additional outcome and sequential analysis studies on the modified-FCU approach would allow for examination of the relation between change talk and client behavior change.

Summary

Assessment feedback provided to parents following child psychological evaluations is a critical yet underutilized opportunity for mental health professionals to bridge the gap between assessment and intervention and influence positive treatment

outcomes. The present study developed and piloted a feedback process based on the evidence-based FCU intervention and evaluated a protocol for training graduate student clinicians in facilitating feedback sessions.

This study had several strengths worth noting. First, the study applied an established evidence-based practice (i.e., FCU) to an assessment context that lacks empirically supported feedback procedures bridging the gap between psychological evaluation and intervention. Second, the MI training protocol was developed based on current literature and was implemented in one of the first studies on MI training with graduate students. Third, this study demonstrated the utility of MOOSES observation coding and sequential analyses for understanding the development of trainings and interventions.

Results indicate that modified-FCU style feedback sessions are perceived as important and helpful by both parents and clinicians. Further, clinicians perceive the sessions as congruent with current clinical practice. In line with literature on MI training, practicum trainings for clinicians incorporated didactic, experiential, and ongoing supervision. Clinicians reported increased MI self-efficacy following the trainings and demonstrated greater MI-consistent than inconsistent language during feedback sessions that was significantly related to subsequent parents' change talk. Findings demonstrate that trained graduate student clinicians are capable of effectively implementing MI in an assessment feedback context. Additionally, a modified-FCU framework may be a useful and efficient approach for maximizing the impact of naturally occurring assessment and feedback procedures. Future studies are needed to examine MI training and skills

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development with graduate students as well as outcomes related to modified-FCU

feedback in assessment settings.

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Table 1

Overall and Single-Item Reliability Measures

Code	Session 1 (κ)	Session 2 (κ)
MICO	0.82	0.91
MIIN	--	1.00
Other	0.77	0.90
CT	1.00	0.84
CCT	0.50	1.00
F/A	0.92	0.86
Overall	0.79	0.87

Note. MICO = MI-consistent; MIIN = MI-inconsistent; Other = all other clinician behaviors; CT = change talk; CCT = counter-change talk; F/A = follow/ask. Session 1 did not contain any MIIN behaviors.

Table 2

Example 2 × 2 Contingency Table

	Target Event	
Antecedent/Given Event	CT	Not CT
MICO	A	B
Not MICO	C	D

Note. MICO = MI-consistent; CT = change talk.

Table 3

Descriptives and Correlations for Client Variables

	1	2	3	4	5	6	7	8	9	10	11
1. Child Age (yrs)	--	-.44	-.22	.34	.36	-.60	.28	-.33	.15	.70*	.26
2. PBI-Hostile		--	.19	.24	.56	.20	.65	-.11	-.01	-.64	-.38
3. PBI-Supportive			--	.19	.24	.49	.54	.92**	.32	-.06	-.40
4. BASC PRS Externalizing				--	.60	.46	.62	-.43	.51	.23	-.02
5. BASC PRS Internalizing					--	-.31	.75	-.36	.11	-.14	-.41
6. BASC TRS Externalizing						--	-.08	.44	.56	-.18	-.10
7. BASC TRS Internalizing							--	-.35	-.12	-.44	-.89*
8. BERS Strength Index								--	.25	.01	-.46
9. PMI Pre									--	.55	.29
10. PMI Post										--	.69*
11. SV											--
M	9.75	1.18	4.13	68.20	61.20	55.71	52.43	83.75	4.05	4.44	3.70
SD	3.72	.48	.68	13.80	19.39	9.83	11.44	13.51	.46	.45	.53
Range	5.05-15.42	.60-2.10	3.20-4.90	41-91	38-100	43-74	42-71	68-100	3.56-4.72	3.76-5.00	2.50-4.00
N	10	9	9	10	10	7	7	8	10	9	9

Note. PBI = Parent Behavior Inventory; BASC = Behavior Assessment System for Children; PRS = Parent Rating Scale; TRS = Teacher Rating Scale; BERS = Behavior and Emotional Rating Scale; PMI = Parent Motivation Inventory; SV = Parent Acceptability/Feasibility/Social Validity Form.
*p < .05; **p < .01.

Table 4

Descriptives and Correlations for Clinician Variables

	1	2	3	4	5	6	7	8	9	10	11
1. Training 1	--	-.04	-.52	.10	.29	-.70	-.70	-.07	-.58	-.12	-.08
2. Training 2		--	-.30	.95*	.27	-.01	-.38	.33	-.49	.59	-.07
3. MISE pre training			--	-.14	-.67	.94*	.67	-.81	.93*	.49	.85
4. MISE post training				--	.18	.09	-.38	.05	-.38	.77	.20
5. MISE (M)^a					--	-.55	-.03	.68	-.45	-.13	-.54
6. MI Skills (M)^a						--	.70	-.61	.86	.62	.77
7. MICO (M)^b							--	-.21	.88	.13	.33
8. MIIN (M)^b								--	-.64	-.50	-.94*
9. CT (M)^b									--	.27	.68
10. CCT (M)^b										--	.75
11. SV											--
M	3.58	3.65	6.10	8.01	7.81	5.08	.97	.06	.67	0.19	4.40
SD	.23	.32	.99	.66	.34	.52	.40	.06	.20	0.12	.31
Range	3.18-3.73	3.09-3.91	4.47-6.81	7.00-8.76	7.47-8.32	4.29-5.63	.40-1.37	.01-.16	.41-.87	.06-.37	3.91-4.73

Note. MISE = Motivational Interviewing Self-Efficacy Questionnaire; MICO = MI-consistent; MIIN = MI-inconsistent; CT = change talk; CCT = counter-change talk; SV = Clinician Acceptability/Feasibility/Social Validity Form.
^{a}Mean across all feedback sessions; ^{b}Mean rate (per minute) across all feedback sessions.
*p < .05.

Table 5

Descriptives for Clinician Feedback Sessions

			Mean Rate					
Clinician	# Sessions	Mean Session Length (min)	MICO	MIIN	Other	CT	CCT	F/A
1	2	46.00	1.37	0.08	0.88	0.82	0.20	0.34
2	1	45.53	1.12	0.02	1.03	0.75	0.37	0.66
3	1	31.70	0.73	0.16	1.58	0.41	0.06	0.73
4	3	46.32	1.24	0.01	1.70	0.87	0.10	0.78
5	1	85.13	0.40	0.04	0.74	0.51	0.21	0.52

Note. Rate = code frequency per minute; MICO = MI-consistent; MIIN = MI-inconsistent; Other = all other clinician behaviors; CT = change talk; CCT = counter-change talk; F/A = follow/ask.

Table 6

Transition and Marginal Frequencies for Codes

Initial Event	Subsequent event						
	MICO	MIIN	Other	CT	CCT	F/A	Total
MICO	86	2	48	173	26	51	386
MIIN	3	0	7	2	0	4	16
Other	69	7	168	33	11	165	453
CT	155	4	54	48	19	3	283
CCT	26	0	19	16	11	1	73
F/A	42	3	157	12	6	7	227
Total	381	16	453	284	73	231	1438

Note. MICO = MI-consistent; MIIN = MI-inconsistent; Other = all other clinician behaviors; CT = change talk; CCT = counter-change talk; F/A = follow/ask.

Table 7

Transition Probabilities for Codes

Initial Event	Subsequent event					
	MICO	MIIN	Other	CT	CCT	F/A
MICO	0.22	0.01	0.12***	0.45‡	0.07	0.13
MIIN	0.19	0.00	0.44	0.13	0.00	0.25
Other	0.15***	0.02	0.37†	0.07***	0.02*	0.36‡
CT	0.55‡	0.01	0.19***	0.17	0.07	0.01***
CCT	0.36	0.00	0.26	0.22	0.15‡	0.01***
F/A	0.19**	0.01	0.69‡	0.05***	0.03	0.03***

Note. MICO = MI-consistent; MIIN = MI-inconsistent; Other = all other clinician behaviors; CT = change talk; CCT = counter-change talk; F/A = follow/ask.
*Less probable, $p < .05$; **Less probable, $p < .01$; ***Less probable, $p < .001$.
†More probable, $p < .05$; ‡More probable, $p < .001$.

APPENDIX A

Clinician Consent Form

Clinician Consent Form

You are invited to be part of a research study conducted by researchers from the University of Missouri's Assessment & Consultation Clinic (MU ACC). The study is focused on using assessment feedback to help families understand their child's evaluation report and better connect to subsequent treatment services. **Your participation is voluntary and will not impact your standing in the Interdisciplinary Child and Family Practicum at MU ACC.**

WHY IS THIS STUDY BEING DONE?

The purpose of the study is to learn if a family-centered assessment feedback style based in motivational interviewing is helpful and useful for parents of children receiving evaluation services. You are being asked to be part of the study because you are enrolled as a practicum student at MU ACC.

WHAT WILL I NEED TO DO AS PART OF THE STUDY?

If you decide to be part of the study, you will be asked to fill out questionnaires throughout your regular training and clinic practices, beginning with a 5 minute training and demographic questionnaire. You will receive three study-related trainings on motivational interviewing and strengths-based assessment and feedback. Following the trainings, you will be asked to complete a training evaluation form that will take approximately 5 minutes. At four occasions during your practicum placement at MU ACC, you will be asked to complete a questionnaire on your perceptions of your ability to use motivational interviewing. This questionnaire will take 5 minutes to complete. A 10-minute questionnaire on your use of motivational interviewing skills will be completed after each feedback session that you lead. Finally, you will be asked to complete one questionnaire on your perception of the validity and acceptability of the feedback sessions. This questionnaire will take a total of 10 minutes. In summary, over the course of the study you will be asked to fill out questionnaires that will require up to 80 total minutes. The information that you share with us is **private**.

HOW LONG WILL I BE IN THE STUDY?

All research related activities will occur between October, 2010 and August, 2011.

WHAT ABOUT CONFIDENTIALITY?

Any information that is gathered as part of this study will remain **private**. The practicum's supervising psychologist, Dr. Brooks, will not be aware of which students are participating in the study. Study information will be coded with a number to protect your identity and stored in a separate locked area. The data will be stored in locked file cabinets behind locked doors. Only the researchers will have access to these records. In any sort of report we might publish, we will not include any information that will make it possible to identify you or any of the families that participate.

WHAT ARE THE RISKS AND BENEFITS OF THE STUDY?
The risks associated with the study are minimal. Our efforts to protect your privacy will include: 1) keeping your student file separate from your research file; and 2) locking all files within cabinets that are within offices. While you may feel uncomfortable talking about sensitive issues or when filling out questionnaires, a licensed psychologist is available to assist you if necessary (Keith Herman: 573-884-2419).

The benefit of the study is that it may help you integrate strengths-based information into evaluation reports and feedback. Also, the study may help future clinicians and families by helping us understand how a family-centered assessment feedback style can affect parent behavior. However, I cannot guarantee that you will benefit from this research.

WHAT ARE MY RIGHTS AS A PARTICIPANT?
You are free to choose whether or not you want to be in the study. Your choice will **not** affect your relationship with the MU ACC or the University of Missouri. If you decide to be part of the study, you are free to withdraw at any time without penalty. Please be aware that you have the right to refuse to be in the study or withdraw from this study at any time. **Your participation is voluntary and will not impact your standing in the MU ACC practicum.**

WHOM DO I CALL if I HAVE QUESTIONS OR PROBLEMS?
If you have any questions, please feel free to contact Lindsay Borden, M.S. by phone (301-401-5560) or e-mail (lcnpc@mail.missouri.edu) or the Keith Herman, Ph.D. by email (hermanke@missouri.edu) or phone (573-884-2419), Research Supervisor, University of Missouri; 16 Hill Hall; Columbia, MO 65211.

For additional information regarding human subject participation in research, please feel free to contact the UMC Campus IRB Office at 573-882-9585. The project number is 1172057.

SIGNATURE:
By signing this form you agree that you have read and understand the information above. It also shows that you agree to participate. Also, your signature shows that you understand that you may withdraw from the study at any time without penalty. You will receive a copy of this form.

_____
Clinician's Name (Printed)

_____   _____
Clinician's Signature   Date

APPENDIX B

Caregiver Consent Form

Caregiver Consent Form

You and your child are invited to be part of a research study conducted by researchers from the University of Missouri's Assessment & Consultation Clinic (MU ACC). The study is focused on using assessment feedback to help families understand their child's evaluation report and better connect to subsequent treatment services.

WHY IS THIS STUDY BEING DONE?

The purpose of the study is to learn if a family-centered assessment feedback style is helpful and useful for caregivers and children receiving evaluation services. You and your child are being asked to be part of the study because you and your child are scheduled to participate in an evaluation at MU ACC.

WHAT WILL I NEED TO DO AS PART OF THE STUDY?

If you decide to be part of the study, you will continue with your scheduled evaluation. During this evaluation, you will be asked to fill out two additional questionnaires that are not a part of your regular scheduled evaluation. The questionnaires will take about 20 minutes total to finish, and you will be asked about how you parent and your motivation to participate in services with your child. At the end of the evaluation, you will schedule a meeting with your clinician to discuss the assessment results approximately 4 weeks later. While this is a regular part of MU ACC evaluations, involvement in the study will include the completion of two additional questionnaires during this meeting. The questionnaires will take about 15 minutes total to finish, and you will be asked about your motivation to participate in services with your child and your opinions about the meeting. In summary, over the course of the study you will be asked to fill out additional questionnaires two times. This will happen on the date of the evaluation and on the date of the meeting to discuss the results. The information that you share with us is **private**. This information will not be shared with any teachers or other providers.

In addition, we will be videotaping the meeting to discuss assessment results. Full names will not be used during this session in order to avoid identifying you or your child in the video.

Please initial in the box that corresponds with your decision regarding consent to videotaping:

☐ **I have been asked and agree to have our assessment feedback meeting video-taped.**

☐ **I have been asked and DO NOT agree to have our assessment feedback meeting video-taped. As a result, I am choosing to NOT participate in this study.**

HOW LONG WILL I BE IN THE STUDY?

All research related activities will occur between October, 2010 and August, 2011. Your involvement will only include the evaluation and feedback appointment dates.

WHAT ABOUT CONFIDENTIALITY?

Any information that is gathered as part of this study and that can be identified with you is considered Private Health Information and subject to HIPAA guidelines; therefore, it will remain **private** as outlined in the MU ACC Notice of Privacy Practices. Study information will be de-identified and will be kept separate from your client file at the MU ACC. That is, we will remove all identifying information and code all of your study information with a number to protect your identity and store it in a separate locked area. The data will be stored in locked file cabinets behind locked doors. Only the researchers will have access to these records. In any sort of report we might publish, we will not include any information that will make it possible to identify you or any of the families that participate.

WHAT ARE THE RISKS AND BENEFITS OF THE STUDY?

The risks associated with the study are minimal. Our efforts to protect your privacy will include: 1) keeping your client file separate from your research file; and 2) locking all files within cabinets that are within offices. While you may feel uncomfortable talking about sensitive issues or when filling out questionnaires, a licensed psychologist is available to assist you if necessary (Connie Brooks: 573-884-2131).

The benefit of the study is that it may help you better understand the assessment results and assist you with identifying a plan for connecting to additional services, if appropriate. Also, the study may help future families by helping us understand how a family-centered assessment feedback style can affect caregiver behavior. However, I cannot guarantee that you or your child will benefit from this research.

WHAT ARE MY RIGHTS AS A PARTICIPANT?

You are free to choose whether or not you want to be in the study. Your choice will **not** affect your relationship with the MU ACC or the University of Missouri. If you decide to be part of the study, you are free to withdraw at any time without penalty. Please be aware that you and your child have the right to refuse to be in the study or withdraw from this study at any time. **Your refusal to participate or withdraw from this study will not affect your scheduled evaluation services.**

WHOM DO I CALL IF I HAVE QUESTIONS OR PROBLEMS?

If you have any questions, please feel free to contact Connie Brooks, Ph.D. by email (BrooksCM@missouri.edu) or phone (573-884-2131), University of Missouri; 226 Lewis Hall; Columbia, MO 65211.

For additional information regarding human subject participation in research, please feel free to contact the UMC Campus IRB Office at 573-882-9585. The project number is 1172057.

SIGNATURE:
By signing this form you agree that you have read and understand the information above. It also shows that you agree to participate and that you are willing to have your child be in the study and to be videotaped during the assessment results meeting. Also, your signature shows that you understand that you may withdraw from the study at any time without penalty. You will receive a copy of this form.

_____

Child's Name (Printed)

_____   _____

Caregiver's Signature   Date

APPENDIX C

Child Assent Form (Grades K-1)

Child Assent Form (Grades K-1)
To be read with child

We are doing a study. We want to help children feel better and get along better with others.

What will happen?
- Your parents will talk to our team and they may make a plan. The plan may help you at home or at school.
- We will ask you questions about home and school.
- We will not tell anyone else about what your parents or you tell us.
- If you do not want to be in the study, you just need to tell us. No one will be mad at you. You can quit the study any time.

Who will know?
We will not tell anyone what you tell us. What you tell us will be kept secret.
- If you tell us that you want to hurt yourself we may someone who will help keep you safe.
- If you tell us that you want to hurt someone else we may tell someone who will help keep you safe.
- If you tell us that someone is hurting you we may someone who will help keep you safe.

Who can I talk to?
You can talk to me. You can talk to Dr. Brooks. 573-884-2131.

Do you have any questions?

Do you want to be in the study?

☐ *YES*   ☐ *NO*

_____

Signature of Child   **Date**

APPENDIX D

Child Assent Form (Grades 2-5)

Child Assent Form (Grades 2-5)

This study is about helping families. We want to help children feel better and get along better with others.

What will happen?
- Your parents will meet with our team. They may make a plan to help things go better at home or at school.
- We will ask you questions about home and school. If you don't want to answer a question you can skip it.
- We will not tell anyone else what your parents or you tell us.

Can anything bad happen to me?
You may think our questions are strange. They should not give you any new worries.
You do not have to answer any question you don't want to.

Can anything good happen to me?
You might get along better with your parents and family. We might be able to help other children like you later.

What if I don't want to do this?
If you do not want to be in the study, you just need to tell us. No one will be mad at you.
You can quit the study any time.

Who will know?
We will not tell anyone what you tell us. Anything that you tell us will be kept a secret.
- But if you tell us that you want to hurt yourself we may tell someone who will help keep you safe.
- If you tell us that you want to hurt someone else we may tell someone who will help keep you safe.
- If you tell us that someone is hurting you we may tell someone who will help keep you safe.

Who can I talk to about the study?
You can ask questions any time. You can ask now. You can ask later. You can talk to me. Or you can talk to Dr. Brooks. 573-884-2131.

Do you have any questions?

Do you want to be in the study?

☐ *YES*   ☐ *NO*

_____

Signature of Child   **Date**

APPENDIX E

Youth Assent Form (Grades 6-12)

Youth Assent Form (Grades 6-12)

This study is about helping families and youth. Specifically we are interested in helping youth feel better and get along better with their family and peers.

Why are YOU invited?
You are invited to be part of the study because you are participating in a scheduled evaluation at the University of Missouri Assessment and Consultation Clinic (MU ACC).

What will happen if I agree to participate?
You will participate in your scheduled evaluation and complete one extra questionnaire that will take approximately 10 minutes. During the evaluation, we will ask you questions about home and school that will be shared with your caregivers(s) later.

Can anything bad happen to me?
When we talk to you about how you are doing at school or home, our questions might seem strange, but they should not give you any new worries and you don't have to answer any question you don't want to.

Can anything good happen to me?
You might feel happier or learn how to get along better with others by participating in the study, but it's not for sure. Also, we might find out something that will help other youth like you later.

What if I don't want to do this?
If you do not want to be in the study, you just have to tell us. There will be no consequences for your decision. You can also say yes now and if change your mind, you can quit the study at any time. The choice is up to you.

Who will see my information?
All of the information we get about you from your or your caregivers **will not be shared with anyone else** outside of the MU ACC It is important to know that if you tell us that you would like to hurt yourself or someone else, or if you tell us that someone is hurting you we may have to talk to someone who will help keep you safe.

Who can I talk to about the study?
You can ask questions any time. You can ask now. You can ask later. You can talk to me Dr. Brooks, 573-884-2131.

Do you have any questions about the study?

Do you want to be in the study?

      ☐ *YES*   ☐ *NO*

Signature of Youth **Date**

_____
Printed Name

APPENDIX F

Client Recruitment Scripts

Client Recruitment Script

Hi, my name is Lindsay Borden and I am a researcher at the University of Missouri. I wanted to talk with you briefly about a study we are doing here at the Assessment and Consultation Clinic. The purpose of this study is to learn if a family-centered assessment feedback style is helpful and useful for parents and children receiving evaluation services. **Regardless of your decision to participate in the study, you will receive your scheduled evaluation services.**

If you are interested in participating, you and your child will complete a few extra questionnaires. Specifically, you will complete two extra questionnaires today that will take 20 minutes total and two extra questionnaires when you come back to the clinic for your evaluation results. Additionally, your child will complete one extra questionnaire today that will take 10 minutes. Some of your evaluation information will be used for study purposes; however, any information used for the study will be striped of any identifying information and/or will be kept in a confidential location separate from your MU ACC client file.

Would you be interested in participating?

[IF YES] Let's go through some more detailed information in the study consent form.

[IF NO] No problem, let's get started with your scheduled evaluation.

Client Recruitment Script (Child: K-1)

Hi, my name is Lindsay. I am doing a study.
I'd like to tell you about it. I will ask you to help.
I'm doing the study to help parents and kids.

If you help, we will still meet today.
If you do not help, we will still meet today.

If you help, I will ask you to do one extra thing that will take 10 minutes.

Would you like to help?

[IF YES] Let's talk more about it.

[IF NO] Ok…

Client Recruitment Script (Child: 2-5)

Hi, my name is Lindsay and I am doing a study. I'd like to tell you about the study. I will be asking you to help. I'm doing the study to help parents and kids. **You will have your meeting today no matter what choice you make about the study.**

If you join the study, I will ask you to do one extra thing that will take 10 minutes.

Would you like to help?

[IF YES] Let me tell you more.

[IF NO] Ok, let's get started.

Client Recruitment Script (Child: 6-12)

Hi, my name is Lindsay and I am doing a study here at the Assessment and Consultation Clinic. I'd like to share with you about the study and I will be asking you to help. The reason why I'm doing the study is to make these appointments more helpful for parents and kids. **You will have your appointment today no matter what choice you make about the study.**

If you decide to join the study, I will ask you to do one extra activity that will take 10 minutes.

Would you be interested in helping?

[IF YES] Let's go through some more things about the study.

[IF NO] No problem, let's get started with your appointment.

APPENDIX G

Clinician Training and Demographic Form

Clinician Training and Demographics Questionnaire

1. Highest Degree (please circle):

Bachelors   Masters   Other: _____

2. Degree currently seeking (please circle):

Masters   Ed. Specialist   Doctorate   Other: _____

Area of specialization (e.g., school psych, couns psych, special ed):_____

3. How many <u>semesters</u> of practicum have you previously had? _____

4. Have any of your previous practicum placements included services with children and/or families (please circle)?

Yes   No   N/A

5. What previous experience(s) with Motivational Interviewing (MI) training have you had (check all that apply)?

Readings (e.g., books, articles)
Verbal instruction (e.g., lecture, workshop, classroom presentation)
Role-playing skills with a partner
Group supervision/coaching
Individual supervision/coaching
Other: _____
None of the above

6. Have you had any of the following opportunities to practice any MI skills you have learned (please circle)?

Individual counseling/consultation	Yes	No	N/A
Group counseling/consultation	Yes	No	N/A
Parent counseling/consultation	Yes	No	N/A
Family counseling/consultation	Yes	No	N/A

7. What previous experience(s) with Family Check-Up (FCU) training have you had (check all that apply)?

Readings (e.g., books, articles)
Verbal instruction (e.g., lecture, workshop, classroom presentation)
Role-playing skills with a partner
Group supervision/coaching

Individual supervision/coaching
Other: _____
None of the above

8. ***Have you had any opportunities to practice any FCU skills you have learned (please circle)?***

Yes   No   N/A

9. ***Please indicate your ethnic/cultural heritage (check all that apply):***
African American
American Indian
Asian
Caucasian
Latin/Hispanic
Middle Eastern
Pacific Islander
Filipino
Other:_____

APPENDIX H

Training Evaluation Form

Training Evaluation Form

Please rate the quality of the training provided to you today:

	Strongly Disagree	Disagree	Agree	Strongly Agree
1. The content of today's presentation was relevant to my work with clients at the ACC.	1	2	3	4
2. The material was presented in a clear way.	1	2	3	4
3. I learned new skills and strategies for working with clients during this professional development session.	1	2	3	4
4. The material presented will have a positive impact on my interactions with clients.	1	2	3	4
5. The material presented increased my understanding of how to work with culturally diverse students.	1	2	3	4
6. I would recommend this professional development to other clinicians.	1	2	3	4
7. The amount of time, resources, and effort required to implement the strategies I learned today is reasonable.	1	2	3	4
8. I plan to implement some of the strategies I learned today.	1	2	3	4
9. I will need additional help or technical assistance in order to effectively implement the strategies from today's presentation.	1	2	3	4
10. I think the professional development "fits" with the clinic's existing practices.	1	2	3	4
11. Overall, I am satisfied with this training.	1	2	3	4

Other comments, suggestions, or feedback:

_____
_____
_____

APPENDIX I

Motivational Interviewing Self-Efficacy Questionnaire

Motivational Interviewing Self-Efficacy

This questionnaire is designed to help us gain a better understanding of the kinds of things that create difficulties for clinicians using Motivational Interviewing. Please rate how certain you are that you can do the things discussed below by writing the appropriate number.

*Rate your degree of **confidence** by recording a number from 0 to 10 using the scale given below:*

0	1	2	3	4	5	6	7	8	9	10
Cannot do at all					Moderately can do					Highly certain can do

Confidence
(0-10)

Efficacy to express empathy
    Accept the parent's perspective ....____
    Avoid judging, criticizing, or blaming the parent..____
    Accept the parent's ambivalence or resistance as normal ....____

Efficacy to develop discrepancy
    Create and amplify discrepancy between parent's present behavior
        and his/her broader goals or values ....____
    Increase parent's awareness of the disadvantages of present
        behavior and advantages of behavior change..____
    Encourage the parent to present his/her own argument for change..................____

Efficacy to roll with resistance
    Use the parent as the primary source for finding solutions to barriers.............____
    Recognize resistance as a signal to respond differently ....____
    Reframe resistance to create momentum toward change.................................____

Efficacy to support parent self-efficacy
    Believe in the parent's ability to change ....____
    Enhance parent's confidence in her/his capability to succeed in
        change and cope with barriers ....____
    Increase parent's sense of self-responsibility for change ....____

Efficacy to use specific MI skills
    Use OARS (open Qs, affirmations, reflections, summaries)............................____
    Ask evocative questions ....____
    Use the importance and confidence rulers ____
    Encourage parent to elaborate on change talk through questioning,
        reflecting, or summarizing ....____
    Assist parent with setting goals and creating a change plan............................____

APPENDIX J

MI Clinician Self-Assessment Form

Motivational Interviewing Clinician Self-Assessment

INSTRUCTIONS: Listed below are a variety of Motivational Interviewing consistent and inconsistent skill areas. Please rate the degree to which you incorporated any of these strategies or techniques into your session with the caregiver(s). Feel free to write comments below each item as applicable. For each item please rate your best estimate about how frequently you used the strategy using the definitions for each scale point.

1	Not At All…	Never used the strategy
2	A Little…	Used the strategy 1 time briefly
3	Infrequently…	Used the strategy 2 times briefly
4	Somewhat…	Used the strategy 3 - 4 times briefly or once or twice extensively
5	Quite a Bit…	Used the strategy 5 - 6 times briefly or thrice extensively
6	Considerably…	Used the strategy during more than half of the session
7	Extensively…	Use of the strategy almost the entire session

1. MOTIVATIONAL INTERVIEWING STYLE OR SPIRIT: To what extent did you provide low-key feedback, roll with resistance (e.g., avoiding arguments, shifting focus), and use a supportive, warm, non-judgmental, collaborative approach? To what extent did you convey empathic sensitivity through words and tone of voice, demonstrate genuine concern and an awareness of the caregiver's experiences? To what extent did you follow the caregiver's lead in discussions instead of structuring the discussion according to your agenda?

...1…………2…………..3…………4……………5………....6……………7…

NOT AT ALL   A LITTLE   INFREQUENTLY   SOMEWHAT   QUITE A BIT   CONSIDERABLY   EXTENSIVELY

Comments:_____

_____

_____

2. OPEN-ENDED QUESTIONS: To what extent did you use open-ended questions (i.e., questions or requests that elicit more than yes/no responses) to elicit the caregiver's perception of his/her child's problems, motivation, change efforts, and plans? These questions often begin with the interrogatives: "What," "How, and "In what" or lead off with the request "Tell me..." or "Describe..."

...1…………2…………..3…………4……………5………....6……………7…

NOT AT ALL   A LITTLE   INFREQUENTLY   SOMEWHAT   QUITE A BIT   CONSIDERABLY   EXTENSIVELY

Comments:_____

_____

_____

3. AFFIRMATION OF STRENGTHS AND CHANGE EFFORTS: To what extent did you verbally reinforce the caregiver's strengths, abilities, or efforts to change his/her behavior? To what extent did you try to develop the caregiver's confidence by praising small steps taken in the direction of change or by expressing appreciation for the caregiver's personal qualities that might facilitate successful change efforts?

...1…………2…………..3…………4……………5………....6……………7…

NOT AT ALL   A LITTLE   INFREQUENTLY   SOMEWHAT   QUITE A BIT   CONSIDERABLY   EXTENSIVELY

Comments:_____

_____

_____

4. REFLECTIVE STATEMENTS: To what extent did you use reflective listening skills such as repeating (exact words), rephrasing (slight rewording), paraphrasing (e.g., amplifying the thought or feeling, use of analogy, making inferences) or making reflective summary statements of what the caregiver says?

...1…………2…………..3…………4……………5………....6……………7…

NOT AT ALL   A LITTLE   INFREQUENTLY   SOMEWHAT   QUITE A BIT   CONSIDERABLY   EXTENSIVELY

Comments:_____

_____

_____

5. FOSTERING A COLLABORATIVE ATMOSPHERE: To what extent did you convey in words or actions that the feedback session is a collaborative relationship in contrast to one where you are in charge? How much did you emphasize the (greater) importance of the caregiver's own decisions, confidence, and perception of the importance of changing? To what extent did you verbalize respect for the caregiver's autonomy and personal choice?

...1…………2…………..3…………4……………5………....6……………7…

NOT AT ALL   A LITTLE   INFREQUENTLY   SOMEWHAT   QUITE A BIT   CONSIDERABLY   EXTENSIVELY

Comments:_____

_____

_____

6. MOTIVATION TO CHANGE: To what extent did you try to elicit caregiver discussion of change (self-motivational statements) through evocative questions or comments designed to promote greater awareness/concern for the problem, recognition of the advantages of change, increased intent/optimism to change, or elaboration on a topic related to change? To what extent did you help the caregiver develop a rating of current importance, confidence, readiness or commitment, or explore how motivation might be strengthened?

...1………...2…………...3…………4…………....5………....6……………7…

NOT AT ALL   A LITTLE   INFREQUENTLY   SOMEWHAT   QUITE A BIT   CONSIDERABLY   EXTENSIVELY

Comments:_____

_____

_____

7. DEVELOPING DISCREPANCIES: To what extent did you create or heighten the internal conflicts of the caregiver? To what extent did you try to increase the caregiver's awareness of a discrepancy between where his or her life is currently versus where he or she wants it to be in the future?

...1………...2…………...3…………4…………5………....6……………7…

NOT AT ALL   A LITTLE   INFREQUENTLY   SOMEWHAT   QUITE A BIT   CONSIDERABLY   EXTENSIVELY

Comments:_____

_____

_____

8. CHANGE PLANNING DISCUSSION: To what extent did you develop a change plan with the caregiver in a collaborative fashion? How much did you cover critical aspects of change planning such as facilitating discussion of the caregiver's self-identified goals, steps for achieving those goals, supportive people available to help the caregiver, what obstacles to the change plan might exist, and how to address impediments to change?

...1………...2…………..3…………4……………5………....6……………7…

NOT AT ALL   A LITTLE   INFREQUENTLY   SOMEWHAT   QUITE A BIT   CONSIDERABLY   EXTENSIVELY

Comments:_____

_____

_____

9. UNSOLICITED ADVICE, DIRECTION-GIVING, OR FEEDBACK: To what degree did you provide unsolicited advice, direction, or feedback (e.g., offering specific, concrete suggestions for what the caregiver should do)? To what extent was your style one of instructing the caregiver how to be successful?

...1………...2…………..3…………4……………5………....6……………7…

NOT AT ALL   A LITTLE   INFREQUENTLY   SOMEWHAT   QUITE A BIT   CONSIDERABLY   EXTENSIVELY

Comments:_____

_____

_____

10. DIRECT CONFRONTATION OF CLIENT: To what extent did you directly confront the caregiver about his or her failure to acknowledge problems or concerns related to their child's behaviors? To what extent did you directly confront the caregiver about not taking steps to try to change identified problem areas?

...1…………2…………..3…………4……………5………....6……………7…

| NOT AT ALL | A LITTLE | INFREQUENTLY | SOMEWHAT | QUITE A BIT | CONSIDERABLY | EXTENSIVELY |

Comments:_____

_____

_____

11. ASSERTING AUTHORITY: To what extent did you verbalize clear conclusions or decisions about what form of treatment would be best for the caregiver? How much did you warn the caregiver that his/her child's progress would be impeded unless the caregivers followed certain steps or guidelines? To what extent did you tell the caregiver about "what works" best in treatment or the likelihood of a poor outcome if the caregiver tried to use his/her own treatment strategies?

...1…………2…………..3…………4……………5………....6……………7…

| NOT AT ALL | A LITTLE | INFREQUENTLY | SOMEWHAT | QUITE A BIT | CONSIDERABLY | EXTENSIVELY |

Comments:_____

_____

_____

12. CLOSED-ENDED QUESTIONS: To what extent did you ask questions that could be answered with a 'Yes' or 'No' response or that sought very specific answers, details, or information about the caregiver's past or current behavior and circumstances? These questions typically begin with the interrogative stems: "Could/can you…," "Do/did you…," "Are you…," or "Have you…"

...1…………2…………..3…………4……………5………....6……………7…

| NOT AT ALL | A LITTLE | INFREQUENTLY | SOMEWHAT | QUITE A BIT | CONSIDERABLY | EXTENSIVELY |

Comments:_____

_____

_____

APPENDIX K

Client Demographic Form

Client Demographic Form

1. Please check all the people living in the child's primary home (where he/she spends the majority of his/her time):

Biological Mother
Biological Father
Step Mother
Step Father
Adopted Mother
Adopted Father
Guardian
Family Friend(s)
Full Brothers(s)
Half Brother(s)
Step Brother(s)

Full Sister(s)
Half Sister(s)
Step Sister(s)
Grandmother(s)
Grandfather(s)
Great Grandmother(s)
Great Grandfather(s)
Aunt(s)
Uncle(s)
Cousin(s)

2. Please indicate the number of people from the following age groups living in the child's primary home (where he/she spends the majority of his/her time):

___ 0-5 years
___ 6-10 years
___ 11-15 years
___ 16-20 years
___ 21-30 years

___ 31-40 years
___ 41-50 years
___ 51-60 years
___ over 60 years

3. Number of children in the home attending the following:

Elementary School:
___Public
___Private

High School:
___Public
___Private

College:
___Public
___Private

4. Primary Caregiver's Marital Status

Married
Separated
Divorced
Remarried
Widowed
Other_____

5. Primary Caregiver's Level of Education:

High School
Some College
Undergraduate Degree
Masters or Law Degree
Doctorate or Medical Degree

*6. **Caregiver's Employment:***
   Unemployed
   Homemaker
   Employed
   Student

*7. **Please indicate the total family income***
   Under $20,000
   $20-30,000
   $31-40,000
   $41-50,000
   $51-60,000
   $61-70,000
   $71-80,000
   $81-90,000
   $91-100,000
   over $100,000

*8. **Ethnic/Cultural Heritage***

Child:
   African American
   American Indian
   Asian
   Caucasian
   Latin/Hispanic
   Middle Eastern
   Pacific Islander
   Filipino
   Other

Primary Caregiver:
   African American
   American Indian
   Asian
   Caucasian
   Latin/Hispanic
   Middle Eastern
   Pacific Islander
   Filipino
   Other

*9. **Languages spoken in the home:***
Major Language _____
Other Languages _____

APPENDIX L

Modified Parent Motivation Inventory

Modified Caregiver Motivation Inventory

Please rate your agreement with the following statements:

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. My child's behavior has to improve soon.	1	2	3	4	5
2. I am willing to work on changing my own behavior as it relates to managing my child.	1	2	3	4	5
3. It is very important for the well-being of my family that my child changes his/her behavior.	1	2	3	4	5
4. I am prepared to participate in treatment in order to change my child's behavior.	1	2	3	4	5
5. Although the main problem is with my child's behavior, I believe I should come to treatment.	1	2	3	4	5
6. It is very important for the well-being of my child that he/she changes his/her behavior.	1	2	3	4	5
7. I am willing to change my current parenting techniques and try new ones.	1	2	3	4	5
8. I think the benefits of seeking treatment will be greater than the costs.	1	2	3	4	5
9. I would like my child's behavior to change.	1	2	3	4	5
10. I am willing to try parenting techniques even if I think they might not work.	1	2	3	4	5
11. I want to be involved in my child's treatment at this point in time.	1	2	3	4	5
12. My child will experience many negative outcomes in life if his/her behavior does not change.	1	2	3	4	5
13. I am motivated to practice any techniques I may learn in treatment at home with my child.	1	2	3	4	5

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
14. I believe that my child's behavior cannot change without my involvement in treatment.	1	2	3	4	5
15. My family will experience many negative outcomes in life if my child's behavior does not change.	1	2	3	4	5
16. I am eager to participate in treatment.	1	2	3	4	5
17. I believe that changing my own behavior can cause my child's behavior to change.	1	2	3	4	5
18. I want my child's behavior to improve.	1	2	3	4	5
19. I am motivated to change the way I reward and punish my child if it will lead to improvement.	1	2	3	4	5
20. I believe that I can learn to change my child's behavior.	1	2	3	4	5
21. I am motivated to participate in my child's treatment.	1	2	3	4	5
22. Participation in treatment is a top priority in my schedule and that of my child.	1	2	3	4	5
23. I believe that I am capable of learning the skills needed to change my child's behavior.	1	2	3	4	5
24. I look forward to learning new techniques for managing my child's behavior.	1	2	3	4	5
25. I am motivated to work with a clinician in order to change my own behavior.	1	2	3	4	5

APPENDIX M

Parent Acceptability/Feasibility/Social Validity Form

Caregiver Perceptions of ARCHES

Please answer the following questions by circling one response.

1. How important do you believe the feedback session was?

| ① Not at all important | ② Somewhat important | ③ Fairly important | ④ Very important |

2. How effective do you believe the feedback session to be?

| ① Not at all effective | ② Somewhat effective | ③ Fairly effective | ④ Very effective |

3. How intrusive do you believe this feedback session was?

| ① Not intrusive | ② Somewhat intrusive | ③ Mostly intrusive | ④ Very intrusive |

4. Is the amount of time, resources, and effort required to participate in the feedback session reasonable?

| ① Not reasonable | ② Somewhat reasonable | ③ Mostly reasonable | ④ Very reasonable |

5. How helpful was the feedback session in increasing your understanding of the evaluation results?

| ① Not helpful | ② Somewhat helpful | ③ Fairly helpful | ④ Very helpful |

6. Overall, what is your general reaction to the feedback session?

| ① Very negative | ② Somewhat negative | ③ Fairly positive | ④ Very positive |

7. What did you like best about the feedback session?

8. What did you like least about the feedback session?

APPENDIX N

Clinician Acceptability/Feasibility/Social Validity Form

Clinician Perceptions of ARCHES

Read each statement carefully. Tell us how well the statement describes your work in using the assessment/feedback approach with Project ARCHES.

	A little True	Somewhat True	Moderately True	Quite a bit True	Very True
1. The feedback session was easy to implement with this parent.	1	2	3	4	5
2. Using the feedback session improved my chances of helping this child/family.	1	2	3	4	5
3. The amount of time required to do the feedback session was reasonable.	1	2	3	4	5
4. The feedback session style fits with my theoretical orientation.	1	2	3	4	5
5. The feedback session made it more likely that the child/family would implement recommendations.	1	2	3	4	5
6. The parent found the feedback session helpful.	1	2	3	4	5
7. The family thought the amount of time required for the feedback session was reasonable.	1	2	3	4	5
8. The feedback session fit with the cultural needs of this family.	1	2	3	4	5
9. I am confident in my ability to conduct the feedback session.	1	2	3	4	5
10. Based on my experiences with this family, I would use this assessment/feedback approach with other families.	1	2	3	4	5
11. The feedback session fits with MU ACC goals and values.	1	2	3	4	5

12. What did you like best about the project?

13. What did you like least about the project?

APPENDIX O

Project ARCHES Motivational Interviewing Coding System

LBorden Project ARCHES
iPAQ: Mini-moose Quick Reference

Save Observation using the following code:
a. Participant ID number (2 digits)
b. Data collector initials (2 letter)
c. Primary or reliability indicator (1 digit) primary =
1, reliability =2)
then add txt to save as a text file

Example	a	b	c
	03	DR	1
	enter 03-DR-1.txt		

<u>RULE REFERENCE</u> (Adherence to rules promotes reliability)

General Notes:
• Be sure to record fixes immediately during the observation using the fix worksheet.
• Only code verbal behavior (no head nods).
• Do **NOT** code facilitating language for clinicians or clients **(**These are simple utterances that function as **keep going** acknowledgments. "Mm Hmm." "OK." "I see." "Uhhhh" "Yeah").
   EXCEPTION: client affirmative statements in favor or against change talk prompted by the clinician.
   Ex – Clinician: "You are hopeful that Brittany will be able to improve her social skills." (MI) Client: "Yeah." (Change)
• Code at the end of each codeable statement:
   o For long dialogue or statements that may require multiple codes, code (1) at the end of each new idea/topic/code, (2) when speaker is interrupted by other speaker, and/or (3) after pauses that last 1-1000 or longer.
   o If client is storytelling, code all off-topic content as Neutral unless it is related to the target behavior (Change/No Change).
   o If a statement is interrupted by a pause (1-1000) and coded as a result, but the subsequent statement changes what the initial code would have been, use a FIX.
      Ex – "Well, sometimes in the morning…. 1-1000 (Other), Jeffrey is really stubborn (FIX to Change/No Change based on context: see below).

Clinician Frequency Codes:
• MI or NotMI codes take precedence over all Other codes (e.g., if a clinician's Self-Disclose qualifies better as a Support, this should be coded as MI instead of Other).
   Ex – Clinician (during feedback/recommendations): "What are some other ways you could respond to Charlotte's tantrums?" (MI)

Motivational Interviewing Codes

Advise (with Permission)
- When clinicians provide recommendations related to target behaviors, these are always coded as MI since clients are expecting and often requesting suggestions during feedback sessions (implied permission).
  Ex – "You'll find that in the recommendations of the report we have include a bunch of suggestions for behavior management strategies to try with Lucy. (Other) For example, you could work on developing behavior expectations while at home. (MI) We've also mentioned some books about children's depression if those seem like that would be helpful. (MI)"
  Ex –   Client: "What should I say to Johnny's case manager?" (Neutral)
               Clinician "You could suggest that she call the clinic with any questions about the contents of the report." (MI)
- **DIFFERENTIAL:** Code as Other if advise is phrased as a closed question or general information. Code as MI if advise is phrased as an open question.
  Ex – "Could you ask someone else for support?" (Other)
- **DIFFERENTIAL:** Code as Not MI if advice/recommendation is phrased without the implied permission or without objectivity.
  Ex – "You should try a calendar with Johnny." (NotMI)
  Ex – "Other parents have found it helpful to use a calendar." (Other – General Info)
  Ex – "What are some other strategies you have tried with Johnny?" (MI)

Open Questions
- If open questions are strung together in a series, one code is used for each topic mentioned. Multiple codes are not used if addressing the same topic – in this case, the code of the final utterance is used.
  Ex – "What to you make of that? How does this fit with what you know of Jeffrey's behavior?" 1 code: MI (Open Q)
  Ex – "How was the drive in today? Was there a lot of rain?" 1 code: Other (Closed Q)
  Ex – "How has Johnny's behavior been lately? Are you stressed? How is your husband?" 3 codes: MI, Other, MI (Open, Closed, Open)

Reflect
- Code as MI even if the clinician's voice inflection changes at the end of the statement to imply a question.
- Do not subdivide long reflections into multiple codes unless it is interrupted by another type of code.
  Ex – "You really hope that Sophie's behavior will improve soon. (MI – Reflect) I hope that for you as well. (MI-Support) At the same time, you're not sure if that will be possible with all the challenges your family is struggling with. (MI – Reflect) Is that right? (Other – Closed Q)"

Not Motivational Interviewing Codes

Confront
- If you are in doubt as to whether a behavior was a confront or some other code (i.e., it *might* be interpreted as a confront), do *not* code it as confront. Instead, defer to alternate code (e.g., MI – Reflect, MI – Open Q).

Client Frequency Codes:
- Only client speech that indicates or reflects the client's *current* state of mind is included as change language (Change or NotChange). Client language that is in the future tense is included. For past tense, only include if from recent past or if the past information is being used to support current intentions or state of mind. Otherwise, code as Neutral.
- Code client emotional reactions and recognition statements related to target behavior as Change or No Change based on the client's tone and the statement's context.
  Ex – Client "It makes me REALLY angry when Brian acts like that at school… I just want to yell at him when he gets home!" (No Change – if in the context of complaining about the behavior in a manner that is not conducive to potential change)
  Ex – Client "When Brian acts like that at school, I feel upset and embarrassed." (Change – if in the context of realizing how the behavior is emotionally impacting the caregiver/family in a manner that would make change more likely).
  Ex – Client "Brian can be very stubborn, and this is very difficult for our family" (Change/No Change based on context)
- Code double-sided client statements as both Change and No Change.
  Ex – Client "It feels impossible to change (No Change), but I am willing to give it a try because it is really important. (Change)"
- Code client speech about other children or siblings at Neutral.
- Code client speech about child strengths as Change.

Clinician Frequency Codes	
Motivational Interviewing Code = MI	
Advise (with Permission)	The clinician gives advice, makes a suggestion, or offers a solution or possible action. These are generally objective (not opinions). Will usually contain language that indicates that advice is being given: Should, Why don't you, Consider, Try, Suggest, Advise, You could, etc. Permission includes language as described below as well as direct questions from clients and implied permission regarding recommendations in the report.
Affirm	The clinician says something positive or complimentary to the client (These tend to be short). Ex – "I appreciate you coming in today." "Good!" "That's

	great!" "Thank you."
Emphasize Control	The clinician directly acknowledges or emphasizes the client's freedom of choice, autonomy, ability to decide, personal responsibility, etc.
Open Question	The clinician asks a question in order to gather information, understand, or elicit the client's story. Open questions are questions that leave latitude for response. **NotMI** when accusatory, leading, rhetorical, argumentative, sarcastic, etc.
Reflect	The clinician makes a statement that reflects back content or meaning previously offered by the client. Includes reframing which suggests a different meaning for an experience expressed by the client, placing it in a new light.
Support	These are generally supportive, understanding comments or statements of compassion. They have the quality of commenting on a situation, or of agreeing or siding with the client. Ex – "I can see what you mean." "That must have been difficult for the family."
Not Motivational Interviewing Code = NotMI	
Advise (without Permission)	The clinician gives unsolicited or unwanted advice (no permission), makes a suggestion, or offers a solution or possible action related to target or non-target behaviors. May sound like an opinion or a particularly subjective suggestion.
Confront	The clinician *directly* disagrees, argues, corrects, shames, blames, seeks to persuade, criticizes, judges, labels, moralizes, ridicules, or questions the client's honesty. Included here are utterances that have the form of questions or reflections, but through their content or emphatic voice tone **clearly** constitute a roadblock or confrontation.
Direct	The clinician gives an order, command, direction. The language is imperative. Ex – "You need to get him into counseling ASAP." "Don't say that!"
Opinion	The clinician provides information in a **subjective** fashion, often with the goal of supporting an argument being made or persuading the client to a point of view. Cannot be given objective truth value. Note that other categories, such as support, affirm, reflect or confront, usually also constitute opinions. In such cases, these other categories

	and their MI/NotMI designation take precedence over Opinion.
Warn	The clinician provides a warning or threat, implying negative consequences that will follow unless the client takes certain action. If possible negative consequences are stated within the context of the clinician's own concern, code as Other - Raise Concern.
Other Code = Other	
Closed Questions	The clinician asks a question in order to gather information, understand, or elicit the client's story. The question implies a short answer: Yes or no, a specific fact, a number, etc. This includes a "spoiled open question" where the clinician begins with an open question but then ends it by asking a closed question.
Feedback	The clinician presents information that is personal to the client, in an objective and unbiased fashion. The information is presented without apparent attempt to persuade and the client is invited to draw his or her own conclusions from the data. Ex- "Johnny is doing really well with respect to his relationships with peers and grades at school." "After speaking with Caroline and reviewing her testing, it seems that she is experiencing some difficulties with attention at home and school."
Filler	This is a code for the few responses not codeable elsewhere: pleasantries, etc. It should not be used often.
General Information	The clinician provides straightforward, **objective** information without added opinion or attempt to persuade the client to a particular point of view. Coders should not try to assess the truth value of the information.
Raise Concern	The clinician points out a possible problem with a client's goal, plan, or intention. May include elements of possible negative consequences as long as these are expressed as the **clinician's own concern**.
Self-Disclose	This is information given to the client *about* the clinician. It includes disclosure of past events and experiences in the therapist's life, as well as expression of the therapist's present feelings or personal reaction to the client.
Structure	These are comments made to explain what is going to happen in the session, to make a transition from one part of a session to another, to help the client anticipate what will happen next, etc. These include episodes in which the clinician mentions something that the client said in a previous session, when the purpose is to remind the client

	of that material, unless the purpose is also to confront the client.

Client Frequency Codes	
Change or Not Change Talk Code = Change or NoChange	Include statements about changing or maintaining target behavior. Includes responding affirmatively or negatively to a clinician statement or question related to the target behavior. **Target behaviors include all behaviors/factors, both individual and systemic (e.g., family, school, community), that may have the potential to increase the likelihood of improved social, emotional, behavioral, or academic functioning.**
Commitment	A statement that explicitly states or implies that the client is making a commitment to change or maintain the behavior.
Desire	A statement that expresses a desire to change or maintain the target behavior.
Ability	A statement that assesses the client's ability or capacity OR lack thereof to alter the behavior.
Need	A statement about the client's need to change or maintain the target behavior.
Reasons	Statements about reasons for changing or maintaining the target behavior. Included here are statements about the client's emotional reactions in favor of changing or maintaining the target behavior.
Taking Steps	A statement that refers to a recent behavioral change made by the client that reflects changing or maintaining the target behavior. "Recent" requires some judgment on the part of coders, but refers to the quality of being current, not something the client did in the distant past.
Problem recognition (Change) Problem denial (No Change)	A statement that reflects client's awareness or denial of the target behavior. The context of the statement will help the coder determine Change vs. No Change (see example above).
Other	All other statements that indicate change to or maintenance of the target behavior or recognition of problem behavior.
Neutral Code = Neutral	
Ask	The client requests information, asks a question, seeks the clinician's advice or opinion.
Follow/Neutral	The client's response follows along with the clinician, but does not deal with changing the target behavior. The statement is neither toward nor away from the direction of changing the target behavior.

APPENDIX P

University of Missouri Institutional Review Board Approval

Campus Institutional Review Board
University of Missouri-Columbia

485 McReynolds Hall
Columbia, MO 65211-1150
PHONE: (573) 882-9585
FAX: (573) 884-0663

Dear Investigator:

Your research proposal involving human subjects was approved by the Campus IRB. Your project falls under the following Expedited category(s), unless it was reviewed and approved by the convened board:

45 CFR 46.110.a(f)(6)
45 CFR 46.110.a(f)(7)

Your IRB approval for this project will expire on September 10, 2011. If you intend to continue research activities after the expiration date, you must complete and submit a Continuing Review Status Report for review at least 30 days prior to the expiration date. If the project is completed prior to the expiration date, you must complete and submit the Completion/Withdrawal Report.

The Campus IRB Approval is CONTINGENT upon your agreement to:

(1) Adhere to all University of Missouri IRB Policies.

(2) MODIFICATIONS: Submit an Amendment Form for any proposed changes to a previously approved project prior to initiation of those changes.

(3) RECORD INSPECTION: The Campus IRB reserves the right to inspect your records to ensure compliance with federal regulations. You are expected to maintain copies of all pertinent information related to the study, included but not limited to, video and audio tapes, instruments, copies of written informed consent agreements, and any other supportive documents for a period of three (3) years from the date of completion of your research.

(4) REPORTING: Promptly report to our office any unanticipated problem, deviation, or noncompliance.

(5) CONSENT: Use the IRB approved consent document unless the consent process was waived. This can be found in document storage and labeled as approved with the approval date in the footer.

Type of Consent Approved:

Parental Consent (One Parent)
Written Consent
Youth Assent for Capable Children

If applicable: Child Category: 45 CFR 46.404

PLEASE NOTE: Child assent k-1 typo

If you tell us that you want to hurt yourself we may TELL someone who will help keep you safe.

If you have any questions or concerns, you may call the IRB office at 573-882-9585 or e-mail us at umcresearchcirb@missouri.edu.

Thank you,
The Campus Institutional Review Board

VITA

Lindsay Ann (Crow) Borden was born in Scranton, Pennsylvania on March 16, 1983. She grew up in Harrisburg, Pennsylvania where she graduated from Central Dauphin High School in 2001. She earned her Bachelor's of Arts in Psychology with a minor in Biology in 2005 from the University of Delaware in Newark, Delaware. Lindsay completed her Master's of Science in Counseling Psychology in 2007 from the Loyola University Maryland in Baltimore, Maryland. She will complete her predoctoral internship in the Child Outpatient Psychology Track with the VA Maryland Health Care System and University of Maryland, Baltimore Psychology Internship Consortium in Baltimore, Maryland and her Doctorate of Philosophy in Counseling Psychology from the University of Missouri in August 2013. Lindsay plans to pursue an academic career researching developmental psychopathology and the implementation and dissemination of evidence-based practices for youth and families.