

Caregiver Engagement in Their Child's Mental Health Rehabilitation Services: Utilizing the Hoover-Dempsey and Sandler Model of Parental Involvement (2005) in Mental Health Counseling

A Dissertation

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Dedication

This dissertation is dedicated to my wife, Eleanor, and my daughter, Nora. Thank you both for the love, support, laughs, and joy that motivated and sustained me to complete this study. Dr. Eleanor Holmgren, the original Dr. Holmgren, thank you for encouraging me to pursue this career and degree and for providing me with the time to write in our wonderfully hectic and busy life.

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Abstract

Mental Health Rehabilitation (MHR) is a widely utilized community mental health service in Louisiana for low-income families. However, treatment adherence, including caregiver engagement for minor clients, is often low. There is still limited understanding of the barriers to caregiver engagement and few tools to assess these barriers and engagement behaviors.

Clinicians, caregivers, and clients currently engaged in MHR services completed a modified version of the Parent Involvement Project Questionnaire (PIPQ) to determine if this scale and its associated theory, the Hoover-Dempsey and Sandler Model of Parental Involvement (2005), can be used in a mental health counseling format to assess for caregiver engagement in counseling.

Reliability scores using Cronbach's alpha were examined to determine whether the PIPQ maintains similar reliability values to the original survey. Independent T-tests were also conducted to examine differences in clinician ratings from the caregivers and clients.

Hierarchical and simple regression analyses were run to determine how caregiver beliefs and perceptions impact their involvement behaviors and their child's perceptions of these behaviors.

Patterns emerged in the data that indicated that the modified PIPQ was a reliable measure of caregiver engagement and that clinicians often rated caregivers and clients higher on this measure than they rated themselves. Several caregiver beliefs and perceptions about their engagement also showed interactions with their forms of engagement behaviors and their child's perception of these behaviors. Responses to calls for participants also indicated barriers to MHR and other community agencies participating in research studies that warrant future study.

Keywords: Caregiver engagement, Mental Health Rehabilitation (MHR), community mental health, engagement behaviors, engagement barriers

Chapter I

Introduction

This chapter describes the overview of the current study by providing information regarding the nature of Mental Health Rehabilitation (MHR) services as a form of Community Mental Health Counseling (CMHC) and the importance of improving caregiver engagement within these services. This chapter also contains the problem statement and purpose of the current study and will outline the significance of this research in identifying influences on caregiver engagement in MHR services. Additionally, this chapter describes the Hoover-Dempsey and Sandler Model of Parental Involvement (2005) as the conceptual framework for this study from both a theoretical as well as methodological perspective. Within this chapter are also limitations and delimitations of the study, assumptions made within this study, and a definition of terms used.

Overview of the Study

Mental Health Rehabilitation (MHR) services are a widely utilized form of community mental health counseling (CMHC) provided to Medicare and Medicaid recipients in Louisiana (Louisiana Office of Behavioral Health, Department of Health and Hospitals, 2011). These services are most often provided to individuals considered to be high-risk and are conducted within the individual's home, school, or other community setting (Louisiana Office of Behavioral Health, Department of Health and Hospitals, 2011, Louisiana Department of Health, 2022). Child and adolescent clients receiving these services receive a combination of Community Psychiatric Support and Treatment (CPST) and Psychosocial Rehabilitation (PSR) services to address disabilities resulting from mental illness, improve daily living functioning, improve relationships with family members and caregivers, and to learn skills to compensate for these

functional impairments so that the individual can function at their appropriate developmental level (Louisiana Department of Health, 2022). MHR services require coordination with caregivers and family members and there is existing evidence supporting the importance of caregiver engagement towards treatment quality in CMHC (Garland et al., 2012; Haine-Schlagel & Walsh, 2015; Louisiana Department of Health, 2022). However, attendance and engagement within these services can often be low for both the client as well as their caregivers (Garland et al., 2012). Therefore, there is a current need to assess for barriers to engagement and provide interventions for these barriers to help improve the quality and positive outcomes of mental health treatment in MHR and other forms of CMHC services (Haine-Schlagel & Walsh, 2015; Haine-Schlagel et al., 2017; Lyon & Budd, 2010).

Caregiver Treatment Engagement and Barriers to Engagement

Caregiver engagement becomes an important aspect of treatment to help guide treatment planning and interventions due to the caregiver's knowledge and expertise regarding their child's functioning, strengths, and areas for growth in addition to the fact that many caregivers and clients desire caregiver engagement in services (Haine-Schlagel et al., 2017; Haine-Schlagel & Walsh, 2015; Walker et al., 2010). Child and adolescent counseling often focuses on family contexts, which can shift treatment towards the family and parent, and would require their involvement in the treatment process (Haine-Schlagel & Walsh, 2015). Due to its importance, low caregiver engagement in treatment can be a significant barrier in MHR and other CMHC services and can lower overall treatment effectiveness and outcomes (Haine-Schlagel et al., 2017; Lyon & Budd, 2010). However, treatment engagement has numerous presentations and definitions across the literature ranging from session attendance and participation, total number of sessions attended, completion of services, and compliance with treatment recommendations,

which complicates caregiver's and clinician's identification of engagement behaviors within sessions (Fraynt et al., 2014; Garland et al., 2012; Jensen-Doss & Weisz, 2008; Haine-Schlagel et al., 2017; Haine-Schlagel & Walsh, 2015; Westin et al., 2014).

Research on barriers to caregiver engagement tends to focus on demographics and socio-economic status, characteristics of the child client, and characteristics of the child's family (Coatsworth et al., 2006). These three groups encompass the wide range of individual factors that influence premature treatment termination. However, no single client or family characteristic determines low engagement, and these variables are typically present in a variety of combinations when they lead to low engagement or treatment dropout (Kazdin et al., 1997). Additionally, caregiver and client experiences within treatment further impact caregiver engagement, with the therapeutic alliance having a strong influence on treatment outcomes (Garland et al., 2012; Haine-Schlagel et al., 2017; Kazdin & Wassell, 1999). These within-treatment influences can impede caregiver engagement due to clinicians feeling overwhelmed and frustrated (Haine-Schlagel et al., 2017) and caregivers perceiving that their perspectives and needs are being ignored (Garland et al., 2012; Haine-Schlagel et al., 2017). Keeping treatment family-focused and working to collaborate and empower caregivers by affirming their contributions to services and encouraging their involvement in services can help mitigate these factors and lead to better treatment outcomes (Garland et al., 2012; Haine-Schlagel et al., 2017; Walker et al., 2010).

This study explored the use of the Hoover-Dempsey and Sandler Model of Parental Involvement (2005) as a new method of assessing parent engagement behaviors and barriers to engagement through the Parent Involvement Project Questionnaire (Hoover-Dempsey & Sander, 2005). By providing these surveys to numerous clinicians and caregivers across multiple MHR

agencies, this study attempted to develop a better understanding of the engagement barriers present within this community and how they relate with one another. This study explored the interactions between various subscale measures on the PIPQ to determine how caregiver motivational beliefs and role perspectives influence their engagement behaviors in their child's MHR services. This study also examined how these caregiver traits impact the perception of these behaviors by the client. Differences between caregiver ratings of their engagement and the clinician's rating of this engagement were also explored.

Problem Statement

Addressing the mental health of New Orleans' citizens, especially children and adolescents, has been a significant challenge for the city due to current gaps in the behavioral health system (DeSalvo & Landrieu, 2013; Poche, 2022). Recent estimates predict that approximately 51,000 children in Louisiana have clinical depression and that only 19,000 of them are currently receiving treatment (Poche, 2022). Estimates from 2019 indicate that Louisiana was higher than the national average for children in poverty, children whose parents lacked secure employment, high school students not graduating, and children from single-parent homes (Louisiana Office of Behavioral Health, Office of Behavioral Health, 2021). The Louisiana Office of Behavioral Health (2021) also noted that 2,814 children 9-17 years old with a serious emotional disturbance received mental health services through community-based treatment, which accounts for approximately 7% of Louisiana children with a serious emotional disturbance. Many of these children are also not receiving adequate mental health care in their schools due to low student to mental health provider ratios in Louisiana that can be as much as 7 times higher than the nationally recommended ratio (Poche, 2022). MHR and other CMHC services are therefore vital in meeting New Orleans children's mental health needs and

increasing the efficacy of these services through effective caregiver engagement in services is a necessity.

Community mental health counseling is shifting towards an increased focus on caregiver involvement and input to improve efficacy (Baker-Ericzén et al., 2013; Bryan, 2009; Haine-Schlagel & Walsh, 2015; Olin et al., 2016). Fraynt et al. (2014) determined that CMHC clients may require up to 45 sessions to achieve significant therapeutic benefits and some clients may need a year or more of services. Attendance and engagement in these services is often low with approximately 40%-60% of families terminating services before treatment is completed and inner-city families averaging approximately 4 sessions before dropping out of treatment (Garland et al., 2012, Kazdin et al., 1997; Westin et al., 2014). Some of these instances of low engagement may be the result of poor explanations of the requirements for parent engagement within CMHC services, indicating a need for more explicit explanations of expectations for caregiver involvement within MHR services. For example, the Louisiana Department of Health (2022) states that caregivers are required to be present and available during services in case of crisis or emergency. However, their active participation in sessions is not listed as a requirement outside of a mandate for clinicians to include communication and coordination with the caregiver as part of their MHR services for child and adolescent clients (Louisiana Department of Health, 2022). The frequency and extent of this communication is not defined though, leaving understanding of this requirement open to interpretation by clinicians and caregivers.

Many of the children treated through CMHC services are referred due to disruptive behaviors, which are often treated through modalities that rely on parent involvement to address those behaviors (Baker-Ericzén et al., 2013). However, CMHC therapists are not always adequately trained and prepared to attend to families with diverse cultural backgrounds and may

negatively impact parent engagement, leading to premature treatment dropout (Baker-Ericzén et al., 2013; Haine-Schlagel et al., 2017). Families who do dropout of services often have poorer attendance and lower treatment engagement due to a variety of factors (Kazdin & Wassell, 1998). Therefore, clinicians must be prepared to identify these factors and provide appropriate interventions to address them to improve the quality and effectiveness of MHR and CMHC services.

There are some existing measures to identify barriers to treatment participation, such as the Barriers to Treatment Participation Scale (Kazdin et al., 1998, 1999), and to measure participation behaviors, such as the Parent Participation Engagement Measure (Haine-Schlagel & Walsh, 2015). However, these measures focus on a more limited scope of participation barriers and behaviors in comparison to the PIPQ (Hoover-Dempsey & Sandler, 2005). Unlike the PIPQ (Hoover-Dempsey & Sandler, 2005), these measures do not explore variables such parent motivational and belief factors related to their engagement behaviors, the child's perceptions of these behaviors, and the child's behavioral outcomes as a result of these engagement behaviors. Additionally, the Hoover-Dempsey & Sandler Model of Parental Involvement (2005) provides a sequential theory and representation of parent engagement, unlike the other measures.

Purpose of the Study

This study explored the potential use and modification of the Hoover-Dempsey and Sandler Model of Parental Involvement (2005) and the PIPQ (Hoover-Dempsey & Sandler, 2005) from an educational model to a clinical one. This alteration provided new insight to how treatment, family, caregiver, and child factors influence parent engagement in their child's MHR services to help improve the effectiveness of this widely utilized form of CMHC treatment in Louisiana. Better understanding the potential barriers to treatment engagement can improve

barrier identification and aid early intervention procedures to improve treatment outcomes (Baker-Ericzén et al., 2013; Carlson et al., 2012; Karpenko & Owens, 2013; Lyon & Budd, 2010; Stein et al., 2013).

Addressing Treatment Adherence in MHR

Treatment adherence in MHR and other CMHC setting varies widely and there is a large need for strategies to improve consistent and effective treatment engagement and treatment outcomes (Breland-Noble, 2012; DeSalvo & Landrieu, 2013; Fawley-King et al., 2013; Garland et al., 2012; Haine-Schlagel et al., 2017; Karpenko & Owens, 2013; Lyon & Budd, 2010; Stein et al., 2013). Better identification of barriers to caregiver engagement and how they interfere with engagement is pivotal for creating interventions to improve engagement (Haine-Schlagel & Walsh, 2015; Kruzich et al., 2003). Engagement behaviors that are necessary but not always consistent in MHR treatment consist of actively participating and engaging in sessions and consultations and completing therapeutic homework and assignments between sessions (Fawley-King et al., 2013; Haine-Schlagel et al., 2017). Caregiver beliefs about the mental health system, perception of support within treatment, and demographic factors can all influence these behaviors (Haine-Schlagel et al., 2017). Clinicians can help address the high premature dropout rates common in CMHC and improve treatment outcomes (Kazdin et al., 1997) by focusing on these factors and emphasizing caregiver engagement throughout services (Walker et al., 2010).

Correlations Between Engagement and Barriers

Olin et al. (2016) and Keller and McDade (2000) report that there can be a disconnect between parent and clinician perceptions of engagement and barriers to engagement behaviors and that parents may present with a variety of motivations for avoiding clinician-identified engagement behaviors. This difference in perception can lead to clinicians taking a blaming and

coercive stance due to their beliefs of why the caregiver is not engaging, which can lead to early termination and dropout (Baker-Ericzén et al., 2013; Olin et al., 2016). Haine-Schlagel and Walsh (2015) determined that caregiver treatment satisfaction and motivation contributed to increased caregiver engagement in treatment. Clinicians working in MHR and other CMHC settings need to be able to identify barriers to participation in treatment early so that they can apply appropriate interventions and improve treatment outcomes due to the significant influence parent engagement has on these outcomes (Haine-Schlagel & Walsh, 2015; McPherson et al., 2017). This study explored whether there is a relationship between caregiver and clinician ratings of caregiver engagement as well as the impact of identified barriers on engagement through parent, client, and clinician self-report.

Significance of the Study

This study provided additional information regarding influences on caregiver engagement and laid the foundation for early treatment interventions to improve the MHR and CMHC services through improved caregiver engagement for the estimated 5,362 children receiving these services in Louisiana (Louisiana Office of Behavioral Health, Office of Behavioral Health, 2021). The Louisiana Department of Health (2022) requires communication and coordination with caregivers as part of their child's MHR treatment, and family involvement in the counseling process is an evidence-based approach in CMHC (Mellin & Pertuit, 2009). Better identifying barriers to treatment engagement can help with the development of engagement strategies that support families and recognize the family's needs. These strategies can help address barriers to treatment engagement and improve client retention in treatment (McPherson et al., 2017; Breland-Noble, 2012).

Improving these services could help to start addressing the higher-than-average instances of adverse childhood experiences listed by the Louisiana Office of Behavioral Health (2021). Results from this study would also benefit program development to better involve caregivers, which could further help improve MHR services and effectiveness (Riebschleger et al., 2014). On a broader scale, this study aimed to improve CMHC services by providing a new model for evaluating caregiver engagement during services while also improving clinician knowledge regarding pre-treatment strategies that could help improve caregiver engagement. Addressing caregiver engagement in treatment by investigating and identifying barriers to treatment engagement can help enhance treatment effectiveness in CMHC and reduce dropout and attrition rates (Haine-Schlagel et al., 2017; Lyon & Budd, 2010). Additionally, increasing parent engagement can help improve therapeutic changes outside of services and greatly improve overall treatment outcomes for the client (Anderson & Minke, 2007; Haine-Schlagel et al., 2017; Haine-Schlagel & Walsh, 2015).

Counselor Training and Preparation

This study contributed to clinician training by providing new insight into caregiver engagement barriers and patterns that new clinicians could implement as strategies to improve caregiver engagement. Many newly-graduated clinicians enter into some form of CMHC and are not always prepared to provide services in the client's home or community (Fradling & Foss, 2014; Rogers, 2014). Additionally, services for child and adolescent clients are starting to focus more on in-home and community-based services similar to MHR and other CMHC settings (Mellin & Pertain, 2009). This pattern points to a training gap for counselors who may be entering into a CMHC agency following their graduate training (Stanhope et al., 2011), which could be addressed by this study. Bryan (2009) noted that counselor education programs play a

key role in preparing counselors to engage clients and their families in mental health services. Having this awareness becomes even more important when working with families from diverse cultural backgrounds due to the variety of culture-specific family presentations and beliefs, which can influence caregiver engagement and responsiveness to their clinician (Añez et al., 2008; Baker-Ericzén et al., 2013). Improved training and insight into barriers and interventions related to caregiver engagement would help improve the treatment effectiveness of these services and prepare new clinicians to provide services in a community setting (Stein et al., 2015).

Conceptual Framework

The Hoover-Dempsey and Sandler Model of Parental Involvement (2005) is a theoretical model used to explain parental involvement and influence in their child's education and school experiences and success (Hoover-Dempsey & Sandler, 1997; Walker et al., 2005). This framework attempts to understand the psychological factors that impact parent involvement by examining the parent's beliefs surrounding themselves, their child, and their child's school as well as the parent's beliefs about their choices and options related to the best actions for their child (Walker et al., 2005). This model identifies 3 major aspects related to parental involvement: motivational beliefs, perceptions of invitations to become engaged, and personal life contexts that could influence their ability to become engaged (Green et al., 2007).

Original Model

Hoover-Dempsey and Sandler (1997) described 5 different levels of parent involvement. Level 1 describes reasons why parents choose to become involved in their child's education and consists of 4 major influences on this choice: the parent's idea of their role within their child's education, the parent's sense of efficacy in being able to help their child learn and succeed, the parent's perception of invitations from the school to become involved, and the parent's

perception of invitations from the child to become involved. Parental role construction in this model is based upon Bronfenbrenner's (1979) Ecological System Theory and its descriptions of interactions between the Microsystem, Mesosystem, Exosystem, and Macrosystems for caregivers. These interactions determine caregiver's decision of their level of involvement and the time and energy resources that they have available to engage in these involvement behaviors as well as influences from outside systems. Level 2 describes the ways in which parents choose to become involved in the child's education as a result of the parent's perception of their own skills and knowledge to help their child, the parent's perception of their additional time and energy constraints that could interfere with helping their child, and specific requests they have received from the child and the school to become more involved. These invitations are important due to their motivational aspect for improving parent involvement as well as their ability to demonstrate the importance and value of parental involvement for the school and child (Hoover-Dempsey et al., 2005). Level 3 encompasses the different ways in which parent involvement can affect the child's educational outcome and describes how the parent's use of modeling, reinforcement, and instruction related to the child's education can impact these outcomes. Level 4 focuses on the variables that mediate the parent's use of Level 3 skills, such as the parent's use of developmentally appropriate strategies and the fit between these actions and the school's expectations of parental involvement. Level 5 describes the child's academic outcomes following parental involvement as measured by the child's academic skills and knowledge as well as the child's sense of self-efficacy.

Updated Model

Walker et al. (2005) revised this initial model to combine aspects of Levels 1 and 2 into 3 constructs to represent the psychological influences on parental involvement behaviors at Level

1: Parent's Motivational Beliefs, Parent's Perceptions of Invitations for Involvement from Others, and Parent's Perceived Life Context. Walker et al. (2005) described Parent's Motivational Beliefs by combining parental role construction and self-efficacy to explain parent's beliefs of what they can and should do to better aid their child. Walker et al. (2005) defined Parent's Perceptions of Invitations for Involvement from Others as the parent's perceptions of general invitations from the school as well as specific invitations from the child and teacher. Parent's Perceived Life Context consists of parent's perceptions of their available time and energy as well as the specific skills and knowledge parents believe may aid in their involvement.

Through these revisions, Walker et al. (2005) described 3 main patterns that influence parental involvement through the parent's role construction regarding their child's academics. A parent-focused role construction develops as the result of the parent's belief that they are responsible for their child's education and their behaviors that mirror this belief. A school-focused roles construction comes from a parent's belief that the school is primarily responsible for their child's education and a partnership-focused role construction comes from the parent believing that both they and the school share responsibility for the child's education. Level 2 of the updated model describes parent's involvement forms (previously Level 3 in the original model), which encompasses helping with schoolwork, attending meetings, and providing encouragement, modeling, and reinforcement for school-based behaviors (Hoover-Dempsey & Sandler, 2005). Level 3 describes mediating and tempering variables to involvement (previously Level 4) and explores the fit between parent's involvement behaviors and their child's developmental level (Hoover-Dempsey & Sandler, 2005). Level 4 explores student attributes that

lead to academic achievement and outcomes and Level 5 summarizes these measures of achievement and student outcomes (Hoover-Dempsey & Sandler, 2005).

Incorporation Into Mental Health

Preliminary reviews of the existing literature do not reveal any direct theory related to parental engagement in mental health outside of references to Bronfenbrenner's (1979) Ecological System Theory, which the Hoover-Dempsey and Sandler Model of Parental Involvement (2005) also draws heavily from. However, multiple studies demonstrate that caregiver involvement and engagement in treatment has a significant impact on treatment outcomes (Haine-Schlagel et al., 2017; Hawley & Garland, 2008; Lyon & Budd, 2010) similar to the Hoover-Dempsey and Sandler Model of Parental Involvement's (2005) level 5 indication that parental involvement leads to improved student outcomes. Additionally, the existing literature defines engagement in mental health treatment as adhering to the agreed upon treatment goals, completion of assigned homework outside of session, attendance of scheduled counseling sessions, and completion of treatment objectives (Fraynt et al., 2014; Lyon & Budd, 2010; Westin et al., 2014), which matches with the constructs outlined in levels 2, 3, and 4 of the Hoover-Dempsey and Sandler Model of Parental Involvement (2005). Hassett et al. (2018) provided further connections to the Hoover-Dempsey and Sandler Model of Parental Involvement's (2005) levels 1 and 2 through their conclusion that family beliefs about mental health as well as their experiences with mental health impact their engagement in these services.

Research regarding school behaviors and mental health also demonstrate a connection between parent involvement and student mental health (Suldo et al., 2012) and there is existing evidence that parent-child interactions in addressing school-based difficulties can impact behavioral outcomes and achievement for students (Murray et al., 2006). Walker et al. (2010)

also encourages school counselors to utilize this model to improve caregiver engagement in academics and in collaboration with the school counselor to better meet student needs. Therefore, there is evidence supporting a connection between parental school engagement and parental therapy engagement, which could be applied within an MHR setting.

Overview of Methods and Research Questions

This study utilized a quantitative, non-experimental, correlational, cross-sectional survey design to determine the existence and strength of relationships between self-report measures on a modified version of the Parent Involvement Project Questionnaire (PIPQ) (Hoover-Dempsey & Sander, 2005). Participant selection consisted of those participants who voluntarily completed the applicable version of the PIPQ. The recruitment population for this study was at least 700 child and adolescent clients (ages 4-16 years old) currently enrolled in 1 of 27 MHR agencies across Louisiana as well as their primary caregiver and assigned clinician to achieve an ideal sample size of at least 363 clients plus their caregivers and therapists in order to achieve a 95% confidence interval (Qualtrics <https://www.qualtrics.com/blog/calculating-sample-size/> May 21, 2023) for the 6,501 children receiving mental health services in LA (Louisiana Office of Behavioral Health, Office of Behavioral Health, 2021). Clients were required to have a CALOCUS (American Academy of Child and Adolescent Psychiatry & American Association of Community Psychiatrists, 1999) score of 3 or 4 and been enrolled in treatment for at least 3 months prior to inclusion in this study. Following recruitment procedures, 39 total participants completed the survey: 17 clinicians, 19 caregivers, and 3 clients. This low sample size was the result of agency hesitation to participate in the study, leading to recruitment through mental health clinician social media postings.

Research Question 1:

Is the Hoover-Dempsey and Sandler Model of Parental Involvement (2005) and its associated measure, the Parent Involvement Project Questionnaire (PIPQ) a reliable measure for therapists to determine caregiver involvement in their child's mental health counseling?

Research Question 2:

How do therapist ratings on the PIPQ differ from the caregiver and client in a sample of mental health rehabilitation (MHR) therapists and participants?

Research Question 3:

How do caregiver Level 1 PIPQ reports of their motivational beliefs, perceptions of invitations for involvement, and perceived life context impact caregiver Level 2 PIPQ reports of their involvement behaviors?

Research Question 4:

How do caregiver Level 1 PIPQ reports of their motivational beliefs, perceptions of invitations for involvement, and perceived life context impact client Level 3 PIPQ reports of their perception of their caregiver's involvement behaviors?

Limitations and Delimitations

RQ2-4 presented with similar limitations and delimitations as a result of their similarities in data collection and statistical procedures. All 4 research questions utilized self-reports on survey measures, which presented the possible limitation of low response and low power for the overall study due to low sample size (Cohen et al., 2002). Surveys also have the possible limitation of participants not responding honestly or accurately to the questions. The PIPQ uses reverse coding on its measure of parent self-efficacy, which might mitigate some of these limitations, but there is still the possibility of participants only utilizing extreme responses on the

scales. The sample could also potentially become nonrepresentative due to the voluntary participation for inclusion in this study. This study attempted to control for these limitations by utilizing a large recruitment population and attempted to stratify participants based on demographic data provided by Louisiana Office of Behavioral Health, Department of Health and Hospitals (2011, 2021).

Another limitation of this study and its self-report format was participant responses having missing data. This study attempted to control for this limitation through the use of Missing Values Analysis and Multiple Imputation. However, the Multiple Imputation procedure presents with its own limitations as SPSS does not report the same data types across both the original and pooled datasets. This limitation resulted in original datasets having certain reports, such as Cohen's *d* values, whereas the pooled datasets did not have these data available. Additionally, pooled datasets created far larger degrees of freedom than the original datasets, which may have affected *p*-values for measures of statistical significance. This study attempted to control for this limitation by reporting both original and pooled datasets for clarity and transparency in reported statistical results.

This study also attempted to control for these limitations by incorporating the option for participants to be eligible to receive 1 of 33 \$15 Amazon gift cards as an incentive to increase participation. Initial recruitment procedures through MHR agencies and the Louisiana Department of Health (LDH) identified additional limitations through agency and LDH resistance to engaging in the current research. This resistance led to a change in recruitment protocol to shift from agency-based recruitment to recruitment of individual clinicians through Louisiana mental health clinician social media group postings. However, participation in this study still remained low with 19 caregivers, 3 clients, and 17 clinicians completing the survey.

Another limitation of the following research questions is that they did not use an experimental design or utilize variable manipulation or controls. Because of this research design, there was a limit to the conclusions from this study regarding the directionality of the relationships between the study variables. However, this study purposefully used an exploratory survey design because it appeared to be the first study to-date to utilize the PIPQ in a mental health framework as a measure of parental engagement and involvement in the therapeutic process. Using the PIPQ within this framework presented an additional limit to this study as the PIPQ is originally a measure of school-based engagement rather than mental health and required minor modifications that were not previously tested for their impacts on the measure's reliability and validity. Hoover Dempsey and Sandler (2005) demonstrated that the alpha scores of the original PIPQ ranged from 0.70-0.88 and Strickland (2015) found alpha levels ranging from 0.662-0.99 after making minor modifications to the PIPQ. This study attempted to maintain these alphas scores following adjustments to the PIPQ. Additionally, Green et al. (2007) reported that multicollinearity may be a limiting factor of the PIPQ itself and that the close relationships between parental self-efficacy and self-perceived knowledge and skills may lead to inconclusive results within these measures. Other measures for parent engagement exist such as the Parent Participation Engagement Measure (Haine-Schlagel et al., 2016), but these measures focus more on engagement behaviors rather than the mitigating factors for this engagement.

Assumptions of the Study

An assumption of this study was that caregivers and clients desire caregiver engagement in services as described by Haine-Schlagel et al. (2017) and Haine-Schlagel and Walsh (2015). This study also assumed that the participating clinicians desire caregiver engagement and view involvement as a beneficial aspect of their client's treatment. Another assumption of this study

was that participants would be motivated to respond honestly to the PIPQ and would not attempt to misrepresent their engagement levels and behaviors through their survey responses.

Definition of Terms

Attendance is the “total duration or number of visits” between the client and the clinician (Garland et al., 2012)

Barriers are attitudinal, situational, and structural factors that interfere with one’s ability to fully engage with treatment (Baker-Ericzén et al., 2013)

Caregiver is the parent/ guardian of an individual (American Psychological Association, 2023)

Counselors are professionals who empower “diverse individuals, families, and groups to accomplish mental health, wellness, education, and career goals.” (Kaplan et al., 2014)

Community Mental Health Counseling (CMHC) is the process of “providing prevention, treatment, and rehabilitation mental health services, sometimes organized as a practical alternative to the largely custodial care given in mental hospitals. Typical services are full diagnostic evaluation; outpatient individual and group psychotherapy; emergency inpatient treatment; specialized clinics for people with substance abuse problems and for disturbed children and families; aftercare (foster homes, halfway houses, home visiting); vocational, educational, and social rehabilitation programs for current and former patients; consultation with physicians, clergy members, courts, schools, health departments, and welfare agencies; and training of mental health personnel” (American Psychological Association, 2023)

Community Psychiatric Support and Treatment (CPST) “is a comprehensive service, which focuses on reducing the disability resulting from mental illness, restoring functional skills of daily living, building natural supports, and solution-oriented interventions intended to achieve

identified goals or objectives as set forth in the individualized treatment plan” (Louisiana Department of Health, 2022)

Dropout is premature termination from therapy that was based on a decision on the part of the parent or family (Kazdin & Wassell, 1998)

Engagement consists of actively participating and engaging in sessions and consultations and completing therapeutic homework and assignments between sessions (Baker-Ericzén et al., 2013; Fawley-King et al., 2013; Garland et al., 2012; Haine-Schlagel et al., 2017)

Interventions are “action[s] intended to interfere with and stop or modify a process, as in treatment undertaken to halt, manage, or alter the course of the pathological process of a disease or disorder.” (American Psychological Association, 2023)

Mental Health Rehabilitation (MHR) “consists of community support, counseling, group and family interventions, and psychosocial skills training and parent/family interventions (p. 25)” (Louisiana Office of Behavioral Health, Department of Health and Hospitals, 2011)

Psychosocial Rehabilitation (PSR) are services “designed to assist the individual with compensating for or eliminating functional deficits and interpersonal and/or environmental barriers associated with their mental illness to restore the fullest possible integration of the individual as an active and productive member of his or her family, community and/or culture with the least amount of ongoing professional intervention” (Louisiana Department of Health, 2022)

Treatment Entry is attendance to the first treatment session (Westin et al., 2014)

Waiting Time is length of time between referral and first visit (Westin et al., 2014)

Chapter II

Introduction

Mental health treatment for many child and adolescent clients has gradually been shifting towards an in-home and community-based model (Mellin & Pertuit, 2009). As a result of this shift, there is a growing emphasis on improving the quality of community-based care by identifying more effective treatment practices and modalities within this setting (Baker-Ericzén et al., 2013; Haine-Schlagel & Walsh, 2015). Many newly graduated counselors and mental health clinicians enter Community Mental Health Counseling (CMHC) upon completion of their graduate training (Freadling & Foss, 2014). CMHC clinicians provide services to clients within their community, homes, and schools (Mellin & Pertuit, 2009) and newly graduated clinicians are often unprepared to address the unique challenges of community-based work (Rogers, 2014) due to gaps in their training and awareness of potential challenges and ways to address them (Stanhope et al., 2011). Addressing these gaps is essential as services for youth continue to shift towards CMHC to provide evidence-based approaches and interventions to high-risk clientele and their families (Mellin & Pertuit, 2009; Stein et al., 2013).

Successfully involving caregivers of child and adolescent clients in CMHC is an aspect of treatment that can improve evidence-based approaches in this setting (Olin et al., 2016; Stein et al., 2015). However, clinicians must first be able to identify and address barriers to caregiver engagement (Lyon & Budd, 2010), which is still inadequately researched (Baker-Ericzén et al., 2013). Failure to address these barriers can often result in clients dropping out of treatment, which occurs at a higher rate in CMHC than in other treatment settings (Lyon & Budd, 2010). This pattern negatively impacts treatment effectiveness across CMHC with many clients requiring somewhere between 11 and 45 sessions of therapy to achieve optimal improvement

from therapy (Fraynt et al., 2014). For Louisiana youth, the high attrition rates attributable to low caregiver engagement in CMHC services becomes a significant concern as this form of treatment contributes to a large portion of mental health services for high-risk clients, including up to 35% of individuals discharge from inpatient mental health services (Louisiana Office of Behavioral Health, Department of Health and Hospitals, 2011).

Treatment Needs

Providing early treatment and intervention for children and adolescents is critical to stem the development of further mental health concerns later in life (McPherson et al., 2017). These interventions become particularly relevant for individuals displaying disruptive and externalizing behaviors as these individuals are frequently referred to CMHC (Baker- Ericzén et al., 2013; Rogers, 2014). Therefore, finding ways to incorporate effective evidence-based treatments in CMHC becomes a necessity to begin to address the growing needs of this population. However, this goal becomes more challenging in a CMHC setting (Stein et al., 2015) due to the low experience of many CMHC clinicians (Freadling & Foss, 2014) and the unique challenges present within CMHC (Rogers, 2014). Additionally, new clinicians often report a gap between their training and practical experiences in CMHC, with little emphasis placed on providing services outside of the traditional counseling office (Stanhope et al., 2011). One area in which this training lacks is in engaging caregivers in CMHC services, which is a key component of effective intervention (Stanhope et al., 2011). Focusing on improving the training and support of future CMHC clinicians is therefore a necessity to improve clinician and treatment effectiveness in this setting (Stein et al., 2015). One way to address this need and support best clinical practice is by examining barriers of parental engagement in their child's CMHC treatment (Lyon & Budd, 2010).

Engagement and Treatment Effects

Involving families and caregivers in treatment and learning to engage and empower support systems is an important aspect of providing effective services in CMHC (Haine-Schlagel et al. 2017; Mellin & Pertuit, 2009). Clinicians therefore require strategies to effectively engage caregivers and other supports in services (Breland-Noble, 2012; Bryan, 2009) as well as to assess caregiver's receptiveness and perceptions of this support (Olin et al., 2016). However, difficulties in communication between clinicians and caregivers are common in mental health and CMHC, which can often lead to disengagement within services or early termination of care (Breland-Noble, 2012; Fraynt et al., 2014; Olin et al., 2016; Westin et al., 2014). Additionally, both caregivers and clinicians report wanting increased collaboration between each other in the child's mental health services (Haine-Schlagel et al., 2017) indicating a need to better identify barriers to this collaboration and mismatches in caregiver and therapist perceptions of this collaboration and engagement to better improve CMHC services. Addressing these difficulties is necessary due to high rates of attrition within CMHC before treatment is complete (Garland et al., 2012; Kazdin et al., 1997) and evidence supporting increased treatment adherence from effective communication and engagement between clinicians and caregivers (Oline et al., 2016). Increased caregiver participation also positively impacts treatment outcomes and effectiveness (Haine-Schlagel et al., 2017; Haine-Schlagel & Walsh, 2015). Therefore, improved identification of barriers to caregiver engagement and more effective engagement strategies becomes necessary to improve CMHC effectiveness.

Review of the Current Literature

This literature review will explore the existing research related to caregiver engagement in community-based mental health services. The review aims to explore why caregiver

engagement in CMHC is important as well as to define engagement and its impact as described in previous literature. The research regarding difficulties in caregiver engagement and retention in CMHC treatment will also be explored. This review will also cover known influences on caregiver engagement in CMHC to highlight the current gaps in existing research that would be filled by this study. This review will frame engagement using the Hoover-Dempsey and Sandler Model of Parent Engagement (1997; 2005) and explain how adapting this model and its associated measures from an educational model to a clinical one is appropriate and adequately encompasses previous research regarding caregiver engagement in CMHC. This adaptation of the model will provide a more thorough framework to conceptualize and examine caregiver engagement in CMHC and encompass many of the needs present in CMHC to better meet the needs of Louisiana youths and their parents engaged in these services.

Caregiver Engagement in Child and Adolescent Mental Health Services

Defining Engagement

There is currently a wide variety of definitions for treatment engagement and representations of engagement behaviors (Haine-Schlagel & Walsh, 2015), which encompass the behaviors related to treatment entry and ongoing involvement in treatment (Westin et al., 2014). Baker-Ericzén et al. (2013) determined that parent engagement consists of attending treatment, following treatment recommendations, actively participating in treatment, and avoidance of premature termination from services. Treatment attendance consists of the total number of sessions that the caregiver attends as well as the consistency of this attendance (Fraynt et al. 2014; Garland et al., 2012; Lyon & Budd, 2012; Schley et al., 2012; Westin et al., 2014). Treatment attendance also includes the number of times a family canceled sessions (Jensen-Doss & Weisz, 2008; Kazdin & Wassell, 1998; Kazdin & Wassell, 1999; Lyon & Budd, 2010), failure

to show for session, or arrived late (Kazdin & Wassell, 1999). However, parents do not only engage in services by physically attending sessions and may consider other behaviors to be indicative of their engagement (Fawley-King et al., 2013).

Adherence within services involves following treatment recommendations (Garland et al., 2012; Haine-Schlagel et al., 2017) and following through with therapeutic homework assignments from the clinician (Haine-Schlagel & Walsh, 2015; Haine-Schlagel et al., 2017; Lyon & Budd, 2010). Haine-Schlagel and Walsh (2015) describe these engagement behaviors as encompassing both caregiver's attitudes and behaviors regarding treatment. Caregiver perceptions of treatment benefits (Coatsworth et al., 2006) and the impact of these perceptions on caregiver's decisions to start treatment for their child, attend sessions, and participate in sessions describe treatment adherence as well (Haine-Schlagel & Walsh, 2015). Other measures of treatment participation and adherence can be phone calls between the clinician and parent (Fawley-King et al., 2013), attending treatment planning sessions (Kruzich et al., 2003), disclosing concerns and relevant clinical information to the clinician (Fraynt et al., 2014; Garland et al., 2012; Haine-Schlagel et al., 2017; Haine-Schlagel & Walsh, 2015), and collaboration between parents and clinicians on the presenting concern and treatment progress (Fraynt et al., 2014; Haine-Schlagel & Walsh, 2015; Jensen-Doss & Weisz, 2008). Actively participating in sessions is another form of treatment adherence, which includes engaging in therapeutic activities with the clinician and client (Haine-Schlagel et al., 2017; Haine-Schlagel & Walsh, 2015; Schley et al., 2012) and being open with the clinician about difficulties in treatment, the perceived usefulness of these services, and being compliant with medication recommendations (Schley et al., 2012).

Importance of Engagement

Caregiver treatment attendance and compliance is often low in community-based services (Garland et al., 2012) and the effectiveness of these services often corresponds with the number of sessions completed (McPherson et al., 2017). Understanding the influences on parent engagement can help improve treatment quality and effectiveness due to the strong effect of parent engagement behaviors on their child's development and treatment progress (Baker-Ericzén et al., 2013; Bryan, 2009; Haine-Schlagel & Walsh, 2015; Kruzich et al., 2003). Additionally, parent consent is a requirement for their children to receive mental health treatment and parent involvement is required for children to attend sessions (Haine-Schlagel et al., 2017). Both child clients and caregivers report wanting increased caregiver participation in CMHC, yet reports of these behaviors remain low (Haine-Schlagel et al., 2017). Addressing these engagement behaviors can be especially helpful for improving parenting skills training to improve the child-caregiver interactions as well as the caregiver's redirection skills, which are evidence-based interventions for children presenting with externalizing symptoms (Lyon & Budd, 2010). Poor treatment attendance and engagement also presents a fiscal concern for CMHC due to the cost of missed and canceled sessions as well as the negative correlation between parent engagement and the risk for early treatment termination (Baker-Ericzén et al., 2013; Garland et al., 2012).

However, attending treatment does not necessarily constitute effective participation in their child's mental health treatment despite increasing the opportunities for effective engagement (Haine-Schlagel & Walsh, 2015). Addressing these concerns is paramount due to the current shift towards more community-based services and the need for improved quality of these services (Haine-Schlagel & Walsh, 2015; Riebschleger et al., 2014). There can be numerous

barriers to this engagement (Garland et al., 2012) though, including poor therapeutic alliance and perceptions that treatment is too demanding or not addressing the presenting concern effectively (Kazdin & Wassell, 1999). These barriers will often negatively impact treatment engagement and retention (Kazdin & Wassell, 1999) and can result in lower motivation to engage in services (Haine-Schlagel & Walsh, 2015; Kazdin et al., 1997; Kazdin & Wassell, 1998). Therefore, focusing on early engagement strategies can help improve retention rates (Breland-Noble, 2012) and the effectiveness of CMHC services (Kazdin & Wassell, 1998).

Engagement and Treatment Progress

Children in CMHC whose caregivers engage in treatment often have better treatment progress and outcomes than those whose caregivers do not engage in treatment (Fawley-King et al. 2013; Garland et al., 2012; Haine-Schlagel et al. 2017; Schley et al., 2012). Clients whose parents engage in treatment often demonstrate improvements in their externalizing behaviors (Anderson & Minke, 2007), depressive symptoms (Haine-Schlagel & Walsh, 2015), and ability to use coping strategies effectively (Walker et al., 2010). Therefore, clinicians should focus on ways to more effectively engage their client's caregivers in services to help improve treatment outcomes and the quality of community-based services (Haine-Schlagel & Walsh, 2015; Haine-Schlagel et al., 2017). Poor treatment progress in this setting is often attributable to low caregiver engagement (Baker-Ericzén et al., 2013), which inhibits the clinician's ability to utilize evidence-based interventions (Haine-Schlagel et al., 2017; Haine-Schlagel & Walsh, 2015). Caregiver engagement in services contributes to treatment more than caretaker-therapists relationship (Haine-Schlagel et al., 2017), indicating its importance in the treatment development process (Riebschleger et al., 2014). Additionally, caregiver engagement in CMHC services is indicative

of skills learned in session being utilized by the client and caregiver outside of session (Haine-Schlagel & Walsh, 2015).

Engagement and Treatment Outcomes

Increased client and caregiver engagement often leads to positive treatment outcomes (Schley et al., 2012) and there is a strong connection between the therapeutic alliance and this engagement (Hawley & Garland, 2008). Disagreement between caregivers and clinicians regarding aspects of the therapeutic process, such as diagnoses and treatment goals can often interfere with this rapport and negatively impact engagement and treatment outcomes (Jensen-Doss & Weisz, 2008). Clinician's use of an individualized treatment plan as opposed to manualized treatment often helps improve the therapeutic relationship and may more appropriately match the needs of families with complex diagnoses (Schley et al., 2012). The diagnostic complexity common within CMHC may also contribute to misalignment as clients and their families with complex diagnoses are typically more difficult to engage in treatment and less likely to achieve quick treatment outcomes (Jensen-Doss & Weisz, 2008). Finding ways to address this disconnect would lead to more positive treatment outcomes as collaboration between the caregiver and clinician as well as perceived usefulness of services, which is associated with therapeutic alliance, often impact outcomes (Hawley & Garland, 2008; Schley et al., 2012).

Caregiver's perceptions of barriers to participating in their child's treatment also impact treatment progress and outcomes (Kazdin & Wassell, 1999). Families in CMHC who perceive greater barriers are less likely to become involved in services or engage in treatment (Kazdin & Wassell, 1999). Finding ways to make treatment more accessible and acceptable to the family and caregiver's perceived needs helps to improve treatment adherence and outcomes (McPherson et al., 2017) while also increasing the clinician's ability to provide evidence-based treatments

(Haine-Schlagel et al., 2017). Kazdin et al. (1997) report that clients and families who terminate services prematurely often do not show improved outcomes and early termination is often the result of perceived barriers within treatment (Kazdin & Wassell, 1999). Therefore, improved treatment outcomes from caregiver compliance and engagement in CMHC services makes addressing these barriers to engagement necessary to insure effective CMHC treatment and treatment completion (Fawley-King et al. 2013; Haine-Schlagel & Walsh, 2015; Lyon & Budd, 2010).

Community Mental Health Counseling

Benefits of Community Mental Health Counseling

Improving in-home and CMHC services is important to increase treatment effectiveness for clients who experience difficulties in attending services in traditional clinical settings (Breland-Noble, 2012). These clients often come from less financially advantaged families who can experience greater barriers within treatment (Rogers, 2014). Services provided outside of the traditional clinic settings, such as in-home and in-school sessions, through CMHC agencies offers a more accessible form of treatment and conveys a willingness from the clinician to engage with their clients in their own environment (Rogers, 2014). For child and adolescent clients, this form of treatment provides additional benefits since many of the presenting concerns that led to the client's referral have roots in the home environment (Rogers, 2014). Additionally, community-based services in the home or school environment can often result in more sessions attended than office-based services with similar clients and barriers to treatment (Fraynt et al., 2014).

Community-based services also provide an opportunity for clinicians to intervene across the various systems that their clients are involved in, including their family, school, and peers

(Mellin & Pertuit, 2009). This systems-based approach matches with existing literature that reports externalizing behaviors for child and adolescent clients often result from factors rooted in the family and community contexts (McPherson et al., 2017). Treatment approaches that utilize these systems can better identify and engage protective and intervening factors present within the client's community to better address presenting concerns (Hawley & Garland, 2008). By integrating themselves within the client's community, clinicians can better identify and utilize aspects of the client's culture as part of their interventions (Stein et al., 2013). Taking this approach better matches with the client and their family and leads to increased treatment outcomes and effectiveness as a result of the environmental interventions (Stanhope et al., 2011). Additionally, clinicians have a greater opportunity to witness and identify potential barriers to treatment progress and engagement through their engagement with the client's systems of support.

Barriers in Community Mental Health Counseling

As noted earlier, attrition and low engagement are common in community-based services (Lyon & Budd, 2010). The cause of these barriers to engagement are not always clear but there are several influences present within the client's family and their ability to attend sessions (Lyon & Budd, 2010). Family level barriers often consist of attitudes and beliefs about services and their usefulness in addressing the family and client's complex needs (Haine-Schlagel et al., 2017). Additionally, families and caregivers can often feel unsupported or blamed within treatment and experience low motivation to engage as a result (Baker-Ericzén et al., 2013). Family ethnicity and caregiver mental health conditions can also influence engagement behaviors (Haine-Schlagel et al., 2017). Culture often impacts a family's comfort in disclosing difficulties that they are experiencing (McPherson et al., 2017) and there is evidence that

community-based therapists are not optimally attending to caregiver participation in treatment for underserved, culturally diverse families (Baker-Ericzén et al., 2013; Garland et al., 2010; HaineSchlagel, Brookman-Frazer, Fettes, Baker-Ericzén, & Garland, 2012). (Haine-Schlagel et al., 2017). Fraynt et al. (2014) found differences in session attendance and rates of dropout between white, African American, and Latinx clients with no additional differences for clients who did not speak English. This relationship indicates that there are additional cultural factors that influence caregiver and client engagement in services apart from language barriers that clinicians need to attend to for optimal treatment outcomes.

In addition to these barriers, families also need to have access to mental health services in order to engage within them (Olin et al., 2016) and logistical concerns such as access to childcare and transportation can often interfere with this access (Baker-Ericzén et al., 2013). Increasing clinicians' knowledge and awareness of these barriers can help address gaps present in clinician's ability to provide evidence-based services within CMHC and improve this form of treatment's effectiveness (Accurso et al., 2011; Baker-Ericzén et al., 2013; Freadling & Foss, 2014; Haine-Schlagel & Walsh, 2015).

Factors That Can Influence Treatment Engagement

Numerous factors can affect treatment engagement and outcomes in CMHC services and understanding how to identify and intervene for these factors can help reduce dropout from CMHC (Lyon & Budd, 2010; Stein et al., 2013). The more barriers to engagement present for the clients correlate with higher rates of treatment dropout (Kazdin et al., 1997; Lyon & Budd, 2010), and often the interaction between these variables predict engagement rather than any single factor (Kazdin & Wassell, 1998; Westin et al. 2014). These factors can range from individual client traits, family dynamics and functioning, caregiver mental health, culture and

ethnicity, and socioeconomic status (SES). Haine-Schlagel and Walsh (2015) identified client factors such as gender, diagnoses, and ethnicity as some of the most consistent predictors of treatment engagement. Other factors, such as perceived barriers to treatment participation and perceptions regarding treatment's relevance and effectiveness are also related to treatment attrition (Anderson & Minke, 2007; Kazdin & Wassell, 1999; Kazdin et al., 1997; Lyon & Budd, 2010) and caregivers often worry about being misunderstood, judged, or blamed for their child's presenting concerns (Keller & McDade, 2000). However, more work is needed to identify and intervene for these treatment barriers and parental methods of engagement (Garland et al., 2012; Lyon & Budd, 2010). Current research trends aim more towards intervention techniques, but these interventions are ineffective if the specific engagement barriers and behaviors have not been identified (Lyon & Budd, 2010).

Referral and Perceived Benefits of Treatment

Many clients in CMHC receive referrals to services as a result of their externalizing behaviors, such as oppositional and disruptive behaviors at home or school (Baker- Ericzén et al., 2013; Karpenko & Owens, 2013; Lyon & Budd, 2010; Rogers, 2014). These outside referrals can sometimes present a barrier to engagement in services as families feel pressured to engage in services that they did not seek out themselves (McPherson et al., 2017) and many families referred for in-home services report not wanting these services or for them to occur within the home (Rogers, 2014). Being able to perceive benefits for this referral rather than objecting to it helps to mitigate these barriers and improve caregiver engagement (McPherson et al., 2017). For example, caregivers who believe that services can help improve their parenting skills, communication with their children, or improve their child's presenting symptoms are often more motivated and therefore engage better in CMHC services (McPherson et al., 2017). Those

caregivers who report higher motivation and positive expectations from services tend to have better engagement in services (Baker- Ericzén et al., 2013) and experience improved treatment progress (Karpenko & Owens, 2013). Parents and child clients both improve their engagement when they experience benefits from services and continued engagement through services furthers caregiver perception of benefits related to continuing services (Coatsworth et al., 2006; Haine-Schlagel & Walsh, 2015; McPherson et al., 2017). Clinicians therefore need to be able to prepare engagement interventions to assess for and address caregiver concerns and improve their perceptions and understanding of the benefits of CMHC services in order to facilitate effective caregiver engagement (McPherson et al., 2017). However, there is often a disconnect between the therapist's perception of treatment engagement and barriers and the parent's perception of these same traits (Baker- Ericzén et al., 2013).

This disconnect can lead to clinicians feeling frustrated with the parent's perceived lack of involvement and parents feeling excluded from services in the ways that they would like to participate (Baker- Ericzén et al., 2013). Baker- Ericzén et al. (2013) report that parents often wish for their input to be considered and utilized in their child's treatment but feel as if this input is ignored, which leads to decreased motivation for services and the clinician perceiving the caregiver as disengaged in services. The parent's motivation for services, expectations about these services, and perception of possible barriers to treatment and treatment engagement can all negatively influence parental engagement behaviors (Baker- Ericzén et al., 2013; Haine-Schlagel & Walsh, 2015; Kazdin et al., 1997). Fawley-King et al. (2013) report that caregiver factors influence treatment engagement more than child factors. The caregiver's perceptions of treatment engagement barriers, such as logistical constraints to attending sessions or uncertainty that services will be beneficial, often determines their engagement and subsequent satisfaction

with services (Baker- Ericzén et al., 2013; Fawley-King et al., 2013; Haine-Schlagel & Walsh, 2015). This relationship between perceived barriers and participation (Baker- Ericzén et al., 2013; Fawley King et al., 2013; Kazdin & Wassell, 1999) indicates a need for improved assessment tools to identify these barriers more accurately.

Treatment and Clinician Characteristics

Treatment and clinician characteristics can also impact caregiver engagement in services (Fraynt et al., 2014; Garland et al., 2012; Kazdin & Wassell, 1999; Schley et al., 2012). For example, clinician's years of experience can also impact caregiver engagement (Haine-Schlagel & Walsh, 2015) with Garland et al. (2012) finding a correlation between the amount of experience a clinician has with the strength of the caregiver's perceived alliance with the clinician and the caregiver's resulting engagement in services. The fact that many newly graduated counselors and mental health clinicians begin their clinical work in CMHC (Freadling & Foss, 2014) highlights a need for clinicians to be able to identify additional, compounding factors to the client's caregiver's engagement. Clinician characteristics such as gender, ability to build rapport, and their expertise in the presenting concerns can also influence engagement (Boswell et al., 2018).

Additionally, caregivers who have poor past experiences in services or in their current treatment experience tend to have lower engagement (Garland et al., 2012; McPherson et al., 2017; Schley et al., 2012). Feeling blamed, judged, or ignored by the clinician during services often leads to a perceived lack of support, decreased satisfaction with services, and reduced caregiver engagement (Baker- Ericzén et al., 2013; Fawley-King et al., 2013; Garland et al., 2012; Haine-Schlagel & Walsh, 2015). This interaction indicates the possibility that despite clinician frustrations with low parent engagement, clinicians may not be inviting or involving

their client's caregiver in services effectively (Baker- Ericzén et al., 2013). The caregiver's perception of these invitations, both from the client and the clinician, as well as their perception of opportunities to become involved in services, such as providing input on treatment goals and progress (Haine-Schlagel et al., 2017; Schley et al., 2012) and learning skills to use outside of sessions (Fawley-King et al., 2013), and the importance of this involvement strongly influence caregiver engagement and their identification of their role within their child's services (Anderson and Minke, 2007; Coatsworth et al., 2006; Haine-Sclagel & Walsh, 2015; Walker et al., 2010). Clinicians must therefore be clear and persistent in their attempts to engage caregivers (McPherson et al., 2017) and focus on caregiver perceptions of presenting concerns, goals for treatment, and beliefs regarding the benefits of their being involved in their child's CMHC services (Coatsworth et al., 2006; Haine-Schlagel et al.m 2017; Kazdin & Wassell, 1998; McPherson et al., 2017; Schley et al., 2012; Walker et al., 2010).

Therapeutic Alliance

The therapeutic alliance is an essential aspect of treatment satisfaction, success, and engagement for both clients and their caregivers (Añez et al., 2008; Boswell et al., 2018; Garland et al., 2012; Haine-Schlagel & Walsh, 2015; Hawley & Garland, 2008; Kazdin & Wassell, 1999; McPherson et al., 2017; Schley et al., 2012). However, clinicians, their clients, and their client's caregivers may emphasize different aspects of the relationship as being important (Añez et al., 2008). The first session with families can often be a key indicator of the therapeutic alliance (McPherson et al., 2017) especially for those families who do not wish for home-based services (Rogers, 2014). Therefore, clinicians need to quickly work to establish this relationship by portraying trustworthiness, attentiveness, interest, empathy, and comfort to the family (Anderson & Minke, 2007; Kruzich et al., 2003; McPherson et al., 2017; Olin et al., 2016). Finding ways to

maintain the therapeutic alliance by portraying emotional support and involvement of family support systems benefits the therapeutic process and improves engagement and retention in services (McPherson et al., 2017; Olin et al., 2016). Clinicians must remain aware of factors that can influence the therapeutic alliance such as clinician's attitude towards clients and caregivers (McPherson et al., 2017), trust in the clinician (Anderson & Minke, 2007), and the clinician's ability to instill comfort and openness with the client and their caregivers (McPherson et al., 2017). Without this awareness, clinicians will often struggle to build or maintain rapport with their client's and their families and experience low treatment engagement and retention as a result (Añez et al., 2008; McPherson et al., 2017; Schley et al., 2012).

Clinicians who struggle to build or maintain this relationship with their clients and their families often experience lower treatment engagement as evidence by greater instances of cancelled sessions, no-shows, early termination, and withholding of clinical information relevant for treatment (Añez et al., 2008; Boswell et al., 2018; Garland et al., 2012; Haine-Schlagel & Walsh, 2015; Hawley & Garland, 2008; Kazdin et al., 1997; Kazdin & Wassell, 1999; McPherson et al., 2017; Schley et al., 2012). From a cultural perspective, clinicians also need to attend to culture-specific factors associated with a strong working alliance. For example, Añez et al. (2008) discuss the importance of incorporating communication styles of respect (*respeto*) and trust (*confianza*) when working with Latino clients and their families to establish an effective working relationship. Additionally, utilizing a communication style that emphasizes individual relationships (*personalismo*) is beneficial in building rapport with these families (Añez et al., 2008). Utilizing a more community-based stance with African American families can also help in building these relationships by incorporating various family and community supports into the treatment goals and processes (Coatsworth et al., 2006; Keller & McDade, 2000). Understanding

the family's cultural values and background is critical in establishing these relationships and helps to create a strengths-based approach in treatment (Añez et al., 2008).

Strengths-Based Approach

A strengths-based approach also helps with the rapport building process and increasing caregiver engagement in services (McPherson et al., 2017). However, Olin et al. (2016) determined that clinicians are better at incorporating strengths-based approaches in their individual work with the child client than in working with the client's caregivers. Finding ways to incorporate family supports into services helps not only with caregiver engagement (McPherson et al., 2017; Olin et al., 2016) but also with the clinician's understanding of the presenting concern from a cultural and systemic perspective and their ability to intervene from this perspective (Bryan, 2009; Olin et al., 2016). Additionally, focusing on caregiver's hopes for improvement through services and strategies that can build on existing strengths within the family system can help improve caregiver motivation to become involved in their child's services (McPherson et al., 2017; Walker et al., 2010). This approach can help with improving the client and family's optimism for treatment outcomes as strengths and successes within treatment receive increased praise and awareness (McPherson et al., 2017; Olin et al., 2016). These aforementioned strategies can improve the caregiver's openness and motivation to become involved in services as a result of their perceptions of the clinician's willingness to involve the family (McPherson et al., 2017) and helps to formulate the caregiver's role construction of their purpose in their child's CMHC services (Walker et al., 2010).

Problem and Treatment Conceptualization

Early termination and low engagement in CMHC services can also occur due to differences in opinion between the caregiver and clinician regarding treatment goals and

presenting concerns (Lyon & Budd, 2010). The presence of multiple diagnosed disorders and trauma experiences (Fraynt et al., 2014) as well as the severity of symptoms also impact treatment engagement (Fraynt et al., 2014; Haine-Schlagel & Walsh, 2015; Kazdin et al., 1997; Kazdin & Wassell, 1999). Jensen-Doss and Weisz (2008) report that disagreement between the clinician and caregiver regarding the client's diagnoses often leads to lower caregiver satisfaction with treatment, lower engagement in services, higher rate of cancelled sessions, and greater treatment attrition. Clinicians who create treatment goals related to the caregiver's perception of presenting concerns rather than goals that are directly related to diagnoses tend to experience higher rates of caregiver engagement than those who do not (Karpenko & Owens, 2013). This interaction indicates the need for more individualized treatment than manualized in CMHC to insure better caregiver engagement in services (Breland-Noble, 2012; Karpenko & Owens, 2013; Schely et al., 2012). Additionally, collaboration between caregivers and clinicians regarding not only presenting concerns but also treatment goals and progress helps to improve caregiver satisfaction and perceived relevance of treatment, which improves caregiver engagement and adherence to treatment recommendations (Fawley-King et al., 2013; Karpenko & Owens, 2013; Kazdin et al., 1997; Lyon & Budd, 2010; Olin et al., 2016).

Communication of Treatment Requirements

A common experience for caregivers in CMHC services is that they feel unsupported throughout treatment and then blamed for their child's lack of clinical progress or for not engaging more in services (Baker-Ericzén et al., 2013; Haine-Schlagel et al., 2017). However, caregivers are often not aware of the clinician's expectations of their level of involvement in their child's treatment sessions (McPherson et al., 2017). Collaborative sessions to discuss these expectations as well as treatment processes and relevance helps to improve caregiver

engagement by outlining specific ways for caregivers to be effectively involved, such as joining in sessions, providing collaborative input, and helping clients complete therapeutic homework and assignments between sessions (Baker-Ericzén et al., 2013; Fawley-King et al., 2013; Garland et al., 2012; Haine-Schlagel et al., 2017; Olin et al., 2016; Schley et al., 2012). This process of feeling invited to engage in services strengthens the therapeutic relationship and can directly improve engagement behaviors (Anderson & Minke, 2007; Walker et al., 2010). However, parent's responsiveness to these invitations still depends on their perceptions of their own efficacy in fitting this role within their child's treatment (Walker et al., 2010). Collaborating with parents on specific ways that they can be involved and assist in treatment improves engagement not only within sessions but also between sessions at home (Fawley-King et al., 2013).

Cultural and Socioeconomic Factors

Many of the above listed factors that interfere with caregiver engagement in MHR and other CMHC services are further impacted by cultural and socioeconomic factors present within the family client's family contexts (Baker-Ericzén et al., 2013; Garland et al., 2012; Haine-Schlagel et al., 2017; McPherson et al., 2017). Not attending to cultural factors within CMHC services negatively impacts caregiver engagement (Haine-Schlagel et al., 2017). Clinicians therefore need improved awareness regarding multicultural influences and values within treatment to better engage diverse families (Añez et al., 2008; Keller & McDade, 2000). Ethnic matching between clinicians and their client's families can mitigate these effects and improve engagement but this matching is not always possible in CMHC settings (Fraynt et al., 2014). Additionally, counseling and mental health treatment often leans towards westernized norms, leading to either low interest in engaging in services or disconnects between clinician, client, and caregiver expectations and perceptions of engagement (Añez et al., 2008; Fraynt et al., 2014;

Keller & McDade, 2000). Finding ways to join with clients and their family's cultural values helps to improve rapport, engagement, and treatment outcomes as clinicians utilize a more individualized approach to best meet their clients' needs (Añez et al., 2008; Schley et al., 2012).

Initiation of Treatment and Treatment Progress

Many cultures emphasize seeking help within the family, community, or religious organizations over outside services such as CMHC (Coatsworth et al., 2006; Keller & McDade, 2000). As clinicians begin working with clients from these cultures and their families, they must remain aware of these cultural values, stressors the family may experience due to their heritage, as well as the fortitude that some families develop to address these stressors, which might interfere with seeking outside services or accepting these services once referred (Coatsworth et al., 2006; Keller & McDade, 2000; Walker et al., 2010). Caregivers and families may also emphasize the importance of keeping family concerns within the family rather than trusting in outside services, which can present as disengagement or withholding clinical information to clinicians unfamiliar with these cultural trends (Coatsworth et al., 2006). Additionally, some families may be unfamiliar and uncomfortable with the mental health system for their children and be hesitant to engage in these services (Fawley-King et al., 2013). African American families report a mistrust of the mental health system due to a history of racist treatment and suspicion of traditionally white institutions (Breland-Nobel, 2012; Coatsworth et al., 2006; Fraynt et al., 2014). Without being aware of these potential barriers, clinicians may view parent and family hesitation to engage fully in service as disengagement and disinterest in treatment (Rogers, 2014). Race and culture also predict treatment dropout and engagement rates throughout services as a result of barriers within services, which emphasizes the need for clinicians to remain aware of these barriers and be prepared to intervene in order to provide effective services to

traditionally underserved communities (Coatsworth et al., 2006; Fraynt et al., 2014; Haine-Schlagel & Walsh, 2015; Kazdin et al., 1997; Keller & McDade, 2000; Westin et al., 2014).

Socioeconomic Status

Socioeconomic Status (SES) is another predictor of treatment engagement and retention (Anderson & Minke, 2007; Coatsworth et al., 2006; Kazdin et al., 1997; Kazdin & Wassell, 1999; Lyon & Budd, 2010). Parents who drop out of CMHC services tend to experience greater SES disadvantage than families who remain in service (Haine-Schlagel & Walsh, 2015; Kazdin et al., 1997; Kazdin & Wassell, 1998). Economic disadvantage creates logistical barriers to services such as difficulties in taking time off of work, finding childcare for client siblings, and receiving transportation to and from services (Anderson & Minke, 2007; Baker-Ericzén et al., 2013; Fawley-King et al., 2013; Kazdin & Wassell, 1998; Keller & McDade, 2000; Lyon & Budd, 2010; McPherson et al., 2017). These logistical barriers contribute to feelings that treatment is too stressful or not beneficial or relevant, which can result in increased rates of attrition (Kazdin & Wassell, 1999). Additionally, lower SES results in more difficult living circumstances, such as lack of social support (Lyon & Budd, 2010) and inadequate housing (McPherson et al., 2017), that can interfere with the caregiver's ability to engage effectively in services (Garland et al., 2012; Kazdin & Wassell, 1998; Keller & McDade, 2000). These difficult circumstances can also contribute to parental mental health concerns, such as substance use disorders (McPherson et al., 2017) and parental stress (Haine-Schlagel & Walsh, 2015; Kazdin & Wassell, 1998), that further interfere with their ability to engage effectively in services (Fawley-King et al., 2013; Haine-Schlagel & Walsh, 2015; Kazdin et al., 1997; Kazdin & Wassell, 1998; Keller & McDade, 2000).

Family Factors

A client's family has a large influence on their development and behavioral outcomes, which often leads to an underage client's treatment incorporating and focusing on the family (Haine-Schlagel & Walsh, 2015; Hawley & Garland, 2008). Like other predictive factors for treatment engagement and dropout, no single factor seems to directly influence caregiver engagement and treatment retention (Kazdin et al., 1997). Rather, multiple factors within the family dynamics interact to lead to engagement behaviors or the lack thereof (Baker-Ericzén et al., 2013; Kazdin et al., 1997). Caregiver mental health (Fawley-King et al., 2013), parent functioning and education (Haine-Schlagel & Walsh, 2015), caregiver age and family structure (Kazdin & Wassell, 1998), caregiver's relationship and communication with their child (Fawley-King et al., 2013), and influences from outside supports associated with the family (Keller & McDade, 2000) can all influence parent engagement behaviors.

Garland et al. (2012) determined that lower parent education levels predicted lower levels of parent engagement and treatment retention, possibly related to further SES barriers and logistical concerns in attending services. Mental health concerns and substance use also negatively impacted engagement behaviors with parents reporting being too stressed or experiencing too many outside problems to engage effectively in services (Fawley-King et al., 2013; Haine-Schlagel & Walsh, 2015; Kazdin & Wassell, 1998; McPherson et al., 2017). These mental health concerns may also contribute to negative perspectives and experiences in mental health, which can reduce motivation to engage and remain in services (Baker-Ericzén et al., 2013; Haine-Schlagel et al., 2017; Keller & McDade, 2000). Additionally, caregiver perceived alliance with their child's clinician determines willingness to engage and attend sessions since the child relies on their parent to attend and engage in services (Garland et al., 2012) and this

alliance may also contribute to perceived usefulness of services (Fawley-King et al., 2013; Jensen-Doss & Weisz, 2008). Parental determination of their role within these services further influences their engagement depending on their belief of the efficacy of their involvement (Anderson & Minke, 2007).

The Hoover-Dempsey and Sandler Model of Parental Involvement (2005)

The Hoover-Dempsey and Sandler Model of Parental Involvement (2005) incorporates many of the factors listed above that can intervene in parent engagement, but from the perspective of parent engagement in their child's education rather than from a clinical perspective. This study will attempt to adapt and utilize the Hoover-Dempsey and Sandler Model of Parental Involvement (2005) from an educational model into a clinical model to explain parent engagement in their child's mental health services and provide additional insight into these factors. The Hoover-Dempsey and Sandler Model of Parental Involvement (2005) is a theoretical model used to explain parental involvement and influence in their child's education and school experiences and success (Hoover-Dempsey & Sandler, 1997; Walker et al., 2005). This framework attempts to understand the psychological factors that impact parent involvement by examining the parent's beliefs surrounding themselves, their child, and their child's school as well as the parent's beliefs about their choices and options related to the best actions for their child (Walker et al., 2005). Research regarding school behaviors and mental health demonstrate a connection between parent involvement and student mental health (Suldo et al., 2012) and there is existing evidence that parent-child interactions in addressing school-based difficulties can impact behavioral outcomes and achievement for students (Murray et al., 2006). Prior literature therefore indicates a connection between parental school engagement and parental therapy engagement, which could be applied within an MHR setting. However, this study may be the

first time that the Hoover-Dempsey and Sandler Model of Parental Involvement (2005) will be applied within a therapeutic framework.

Challenges to Applying Hoover-Dempsey and Sandler to Research with Mental Health Rehabilitation (MHR) Treatment

The primary challenge to applying the Hoover-Dempsey and Sandler Model of Parental Involvement (2005) in MHR treatment is that it is a school engagement theory rather than a mental health therapy engagement theory. There is existing literature that indicates a connection between parental school engagement and parental therapy engagement, which could be applied within an MHR setting. However, this study may be the first time that the Hoover-Dempsey and Sandler Model of Parental Involvement (2005) will be applied within a therapeutic framework, which could present difficulties despite the connections between this theory and the existing literature on parental treatment engagement.

This theory would also be difficult to apply with MHR treatment because some parents may be overly involved rather than uninvolved (Hoover-Dempsey et al., 2005). This theory only addresses factors that influence positive parental involvement and what these behaviors look like as opposed to maladaptive or ineffective involvement. This distinction could present a similar issue in treatment engagement as some parents may present as highly involved even if this engagement is counterproductive to positive client outcomes. Additionally, research into this theory shows that parental involvement typically declines as students become older and begin to present with more autonomy (Hoover-Dempsey et al., 2005). Clients up to 21-years-old can receive MHR services for children and adolescents (Louisiana Office of Behavioral Health, Department of Health and Hospitals, 2011). Therefore, parental involvement may be lower or harder to measure for these older and more autonomous clients. Most of the research related to

the Hoover-Dempsey and Sandler Model of Parental Involvement (2005) focuses on elementary and middle school students (Hoover-Dempsey et al., 2005), which could prevent this theory from applying to the entire clientele that child and adolescent MHR services serve.

Applying Hoover-Dempsey and Sandler from a Developmental Perspective

The Hoover-Dempsey and Sandler Model of Parental Involvement (2005) applies well to a developmental perspective due to its inspection of parental involvement motivations and behaviors throughout the child's academic career (Hoover-Dempsey & Sandler, 1997). This theory suggests that parents develop goals for their involvement behaviors dependent on their perception of their own abilities and life context (Hoover-Dempsey et al., 2005). Green et al. (2007) and Hoover-Dempsey et al. (2005) stated that parent's role construction develops in congruence with their child's own developmental level. As their children age, parent's perceptions of their ability and skill to effectively engage and assist with their child's schooling diminishes as their child begins to engage in more advanced academic subjects (Green et al., 2007; Hoover-Dempsey et al., 2005). This self-perception and role construction develops as a result of the parent's own experiences in these contexts as well as their observations of other parent's involvement and their experiences withing the school-system (Hoover-Dempsey et al., 2005). Parents also develop this role construction based on their own beliefs about how children develop, what their responsibilities are for involvement and engagement in their child's schooling, and what outcomes they can expect following these behaviors (Hoover-Dempsey et al., 2005; Walker et al., 2005). These roles often develop within a social context based on the parent's social environment conveying expectations of the parent's responsibilities and can continue to develop due to these influences and the parent's experiences (Hoover-Dempsey et al.,

2005). This developmental perspective applies to the utilization of this theory within an MHR framework as well.

Parents develop their role perspective in mental health in a similar fashion to how they develop their role construction in the Hoover-Dempsey and Sandler Model of Parental Involvement (2005). Lyon and Budd (2010) described how parent's experiences with mental health and their perception of the techniques and case conceptualization influence their engagement in treatment with their children. Karpenko and Owens (2013) explained that the perceptions of treatment outcomes also affect treatment engagement. These findings mirror Hoover-Dempsey et al.'s (2005) report that parent engagement varies depending on their experiences. Additionally, parents tend to engage less effectively and reliably in treatment when they do not perceive an invitation to be involved from the assigned clinician and were not supported throughout their child's treatment (Baker-Ericzén et al., 2013; McPherson et al., 2017). Fraynt et al. (2014) also demonstrated that client age can impact treatment engagement, with younger clients having more engagement from their caregivers than older clients. These similarities between the existing literature on parent involvement in treatment and the Hoover-Dempsey and Sandler Model of Parental Involvement (2005) demonstrate that this theory is applicable from a developmental perspective in mental health as well as education.

Variables That May Not Be Accounted for in Hoover-Dempsey and Sandler

The Hoover-Dempsey and Sandler Model of Parental Involvement (2005) is a relatively encompassing theory that examines multiple impacts on parent involvement and how the level of involvement affects overall student outcomes. This theory's focus on education rather than mental health treatment creates some possible gaps in measurement and conceptualization when applying this theory to mental health. Walker et al.'s (2005) revisions of this model provided a

strong basis for measuring the variables that impact parent engagement in Level 1 of the model: motivational beliefs, perceptions of invitations for involvement from others, and perceived life context. Each of these constructs provides useful information regarding parental engagement in their child's mental health treatment. However, the invitations for involvement from the teacher, which will now be applied as invitations from the therapist, may not effectively address rapport and the therapeutic relationship between the parent and therapist, which also affects parent engagement (Allanach, 2009; Haine-Schlagel et al., 2017; Hawley & Garland, 2008; Stanhope et al., 2011). Green et al. (2007) mentioned that there is a relationship between parental involvement and the parent's interpersonal relationship with the teacher as part of the parent's social context. However, Green et al. (2007) did not fully explore how this interaction changes due to parental socioeconomic status or other life context measures.

This theory also does not address important treatment aspects such as diagnosis and the clinician's modalities and techniques. Jensen-Doss and Weisz (2008) found that diagnostic disagreement between the parent and clinician regarding the child's diagnosis tends to lead to less reliable and effective treatment engagement. Diagnosis agreement may be related to Parent Perceived Life Context in Level 1 of the Hoover-Dempsey and Sandler Model of Parental Involvement (2005) or possibly through perceived invitations from the teacher. However, as stated previously, this model was not originally intended to be applied to a mental health context and therefore does not specifically account for mental health diagnoses. Similarly, the Hoover-Dempsey and Sandler Model of Parental Involvement (2005) does not explore the clinician's use of evidence-based practices or treatment modality. Existing research demonstrated the impact these factors have on treatment engagement and outcomes (Carlson et al., 2012; Lyon & Budd, 2010; Stanhope et al., 2011). Therefore, additional measures and assessment tools may be

necessary to address these variables not explicitly covered by the Hoover-Dempsey and Sandler Model of Parental Involvement (2005).

Critique of Hoover-Dempsey and Sandler (2005)

While the Hoover-Dempsey and Sandler Model of Parental Involvement (2005) provides a strong and comprehensive model for parent involvement and engagement, the original model (Hoover-Dempsey & Sandler, 1995, 1997) received revision through Walker et al. (2005). These revisions only addressed the first 2 levels of this 5-level model to better describe parent's psychological factors related their involvement behaviors through a revised representation of parent's motivational beliefs, perceptions of invitations from others, and perceived life context (Walker et al., 2005). These initial modifications may indicate the possibility that levels 3-5 could require continued study and eventual revision in the future as well. Therefore, this theoretical model is not yet complete and may not entirely or accurately encompass parental involvement in their child's education. Green et al. (2007) made similar conclusions and reported that parental motivations for involvement and how these motivations affect the parent's decisions to be involved is still understudied, especially as moderated by the parent's social contexts and environment. This theory also struggles with operationalizing some aspects measured within its levels such as parent behaviors as it is difficult to measure what parents do not do as part of their engagement behaviors (Walker et al., 2005). Green et al. (2007) demonstrated similar difficulties when measuring for the impact of SES as a construct of parental life context on overall parental involvement. These difficulties could be the result of multicollinearity between the various constructs in levels 1 and 2, which further indicates that continued revisions may be necessary to improve this theory's accuracy. Utilizing this theory from a CMHC perspective and revising

aspects of its associated survey measures to encompass clinical aspects rather than educational could help to address this multicollinearity and improve the model's validity.

Community-Based Services in Louisiana

Within CMHC, understanding nuances is important and therefore strategically examining a specific state when looking at parental engagement is prudent. For example, within Louisiana, MHR services for child and adolescent clients aims to restore client developmental tracts and allow clients to function optimally in their environment (Louisiana Department of Health, 2022). Treatment aims to accomplish these goals by improving client's relationships with their family, caregivers, and peers as well as by improving appropriate functioning at home, school, and in the community (Louisiana Department of Health, 2022). Community-based services provide treatment to up to 35% of hospital discharges in Louisiana and provide mental health services to many of the high need clientele in the state (Louisiana Office of Behavioral Health, Department of Health and Hospitals, 2011). Mental Health Rehabilitation (MHR) services provide a form of community-based services for Medicaid clients in their homes, schools, and places of work (Louisiana Department of Health, 2022; Louisiana Office of Behavioral Health, Department of Health and Hospitals, 2011). These services consist of counseling, group and family interventions, community support services, and psychosocial skills training (Louisiana Office of Behavioral Health, Department of Health and Hospitals, 2011) provided based on assessment results from the Child and Adolescent Level of Care Utilization System (CALOCUS) (Louisiana Department of Health, 2022). In addition to individualized treatment with their child and adolescent clients, MHR clinicians are also required to communicate and coordinate care with the client's legal guardian (Louisiana Department of Health, 2022). Therefore, caregiver engagement in treatment is a necessary aspect of MHR services and improving these engagement

behaviors can help to improve MHR effectiveness (Fawley-King et al. 2013; Garland et al., 2012; Haine-Schlagel et al. 2017; Schley et al., 2012).

Clients

Clients in MHR and other CMHC services are often either referred by others or mandated to be in services by outside authorities (Rogers, 2014). Child and adolescent clients in these services typically receive referrals for oppositional behaviors, poor achievement in school, or depressive symptoms (Karpenko & Owens, 2013). Many of these presenting concerns have outside influences that are often related to socioeconomic and other systemic concerns (Lyon & Budd, 2010; Rogers, 2014). Additionally, a large percentage of these clients come from minority populations, which can further contribute to systemic influences on their presenting concerns (Lyon & Budd, 2010). Breland-Noble (2012) notes that diverse and minority populations often face barriers to mental health treatment that require interventions. Coatsworth et al. (2006) identify 3 categories of these barriers: sociodemographics, child characteristics, and family characteristics. For child and adolescent clients, identifying influences on caregiver participation and barriers to their participation in treatment is vitally important to improve the treatment outcomes for these clients (Baker-Ericzén et al., 2013; Kruzich et al., 2003).

Clinicians

Clinicians in MHR and other CMHC services often do not receiving training to prepare them for providing in-home services for high-risk populations (Freading & Foss, 2014; Rogers, 2014) or to identify or address the treatment barriers and difficulties associated with this treatment setting (Accurso et al., 2011). Many of these clinicians require improved training in utilizing support systems in CMCH services (Boswell et al., 2018; Bryan, 2009). Additionally, peer and supervisory support is often lacking in this setting due to the isolated nature of home

and community-based services, which can lead to uncertainty regarding ways to identify and address these difficulties (Rogers, 2014). These difficulties within CMHC often result in high clinician turnover and low work satisfaction (Freadling & Foss, 2014; Hanley et al., 2017; Stein et al. 2015). Poor caregiver engagement and involvement in treatment is a common cause of this frustration for CMHC clinicians working with child and adolescent clients (Baker-Ericzén et al., 2013; Haine-Schlagel et al., 2017; Rogers, 2014). However, clinicians may not always be aware of barriers to this participation and there may be a mismatch between clinician and caregiver perceptions of barriers and engagement behaviors (Lyon & Budd, 2010). This possibility highlights the need for better assessment tools and knowledge regarding barriers to participation in CMHC services to better improve treatment progress and outcomes.

Current Research Needs

There is continued need to better understand and identify factors influencing caregiver engagement due to its influence on treatment effectiveness both in session and between sessions at home (Haine-Schlagel & Walsh, 2015; Lyon & Budd, 2010; Haine-Schlagel & Walsh, 2015). Previous research has identified numerous factors that intervene with caregiver engagement in mental health services, but more work is needed to determine the interactions between these known factors in CMHC as well as their connection to the type and quality of caregiver engagement (Baker-Ericzén et al., 2013; Fawley-King et al., 2013; Haine-Schlagel & Walsh, 2015). The PIPQ (Hoover-Dempsey & Sandler, 2005) provides an assessment measure that can explore these interactions in a more thorough manner than existing mental health assessments for engagement barriers (Kazdin et al., 1998, 1999) and engagement behaviors (Haine-Schlagel & Walsh, 2015). Being able to better understand these interactions can lead to better assessment and intervention measures that can assist clinicians in tailoring treatment approaches to best

support their clients and their families (Haine-Schlagel & Walsh, 2015; McPherson et al., 2017). Additionally, understanding how these factors can predict parent engagement in services can assist with identifying additional resources that might help intervene with these barriers early in the therapeutic process to improve engagement and prevent early termination (Fraynt et al., 2014; Kazdin et al., 1997). This study will attempt to address this need by utilizing a theoretical model and assessment that explores individual characteristics in conjunction with parent perceptions of invitations to be involved, perceived role construction, and perceived engagement behaviors to better identify the interactions between caregiver and family characteristics with cognitive factors associated with engagement behaviors in treatment. This approach matches well with Lyon and Budd's (2010) call for more research exploring cognitive match between caregivers and clinicians regarding engagement behaviors in CMHC and Kazdin et al.'s (1997) report that most research regarding caregiver engagement behaviors does not follow a theoretical model.

Chapter III

Introduction

Chapter 3 will discuss the methodology used for the current study as well as the procedures used to analyze the data collected. The purpose of the study and its associated research questions will be restated and there will be further discussion of the research design, participants, procedures, and data collection. The Hoover-Dempsey and Sandler (1997, 2005) Model of Parental Involvement and its associated survey, the Parent Involvement Project Questionnaire (PIPQ) will also be explored in greater detail.

Purpose of the Study

The purpose of the current study is to explore the potential use and modification of the Hoover-Dempsey and Sandler Model of Parental Involvement (2005) and the Parent Involvement Project Questionnaire (PIPQ) (Hoover-Dempsey & Sandler, 2005) from an educational model and survey into a mental health counseling one. This alteration will create an additional method of assessing and understanding barriers to treatment outside of demographic and socioeconomic factors. Better understanding the potential barriers to treatment engagement can improve barrier identification and aid early intervention procedures to improve treatment outcomes (Baker-Ericzén et al., 2013; Carlson et al., 2012; Karpenko & Owens, 2013; Lyon & Budd, 2010; Stein et al., 2013).

Research Design

This study utilizes a quantitative, non-experimental, correlational, cross-sectional survey design to explore and determine the existence and strength of relationships between self-report measures on a modified version of the PIPQ (Hoover-Dempsey & Sandler, 2005) and to explore the reliability coefficients of modified questions for this survey. This study utilizes this design to

determine the applicability of the Hoover-Dempsey and Sandler Model of Parental Involvement (2005) and the PIPQ as a new model of parental involvement in their child's mental health counseling. This design matches the methods used by Hoover-Dempsey and Sandler (2005) and the design of the PIPQ (Hoover-Dempsey & Sandler, 2005), which improves generalizability between the modified PIPQ in this study as well as Hoover-Dempsey and Sandler's (2005) version of the PIPQ. The research design also allows for the identification of trends within the participant sample that may be generalized to the population of MHR clients and their caregivers (Creswell & Creswell, 2018). The cross-sectional design is also appropriate for the proposed large sample size and maintaining confidentiality for participants to potentially improve participant response and engagement rates (Creswell & Creswell, 2018; Stockemer, 2019).

Research Questions

The current study included the following research questions.

Research Question 1:

Is the Hoover-Dempsey and Sandler Model of Parental Involvement (2005) and its associated measure, the Parent Involvement Project Questionnaire (PIPQ) a reliable measure for therapists to determine caregiver involvement in their child's mental health counseling?

Research Question 2:

How do therapist ratings on the PIPQ differ from the caregiver and client in a sample of mental health rehabilitation (MHR) therapists and participants?

Research Question 3:

How do caregiver Level 1 PIPQ reports of their motivational beliefs, perceptions of invitations for involvement, and perceived life context impact caregiver Level 2 PIPQ reports of their involvement behaviors?

Research Question 4:

How do caregiver Level 1 PIPQ reports of their motivational beliefs, perceptions of invitations for involvement, and perceived life context impact client Level 3 PIPQ reports of their perception of their caregiver's involvement behaviors?

Hypotheses

The following hypotheses were developed from the research questions.

Hypothesis 1 (for Research Question 1)

Cronbach's alpha ratings for each subscale of the PIPQ will remain significant ($p < .05$) with alpha coefficients of at least 0.70.

Hypothesis 2 (for Research Question 2)

Clinician ratings on the PIPQ will differ significantly from client and caregiver ratings on the PIPQ.

Hypothesis 3 (for Research Question 3)

As caregiver Level 1 responses increase on the PIPQ, their Level 2 ratings will also increase.

Hypothesis 4 (for Research Question 4)

As caregiver Level 1 responses increase on the PIPQ, client Level 3 ratings will also increase.

Variables

For Research Question 1, there was no identified independent variable (IV) or dependent variable (DV). The IV for Research Question 2 was the therapist's ratings of each subscale on both the PIPQ-Caregiver as well as the PIPQ-Client surveys. The DV's were the caregiver's rating of each subscale on the PIPQ-Caregiver and the client's rating of each subscale on the

PIPQ-Client. The IV's for Research Questions 3 and 4 were the caregiver's Level 1 ratings of their motivational beliefs, perceptions of invitations for involvement, and perceived life context on the PIPQ-Caregiver with caregiver's Level 2 ratings of their involvement behaviors on the PIPQ-Caregiver as the DV for Research Question 3 and the client's Level 3 ratings of their perception of their caregiver's involvement behaviors on the PIPQ-Client as the DV for Research Question 4.

Participants

The recruitment population for this study was at least 700 child and adolescent clients (ages 4-16 years old) currently enrolled in 1 of 27 MHR agencies across Louisiana as well as their primary caregiver and assigned clinician. The intended sample size for this study was at least 363 clients plus their caregivers and therapists who voluntarily complete the applicable version of the PIPQ in order to achieve a 95% confidence interval (Qualtrics <https://www.qualtrics.com/blog/calculating-sample-size/> May 21, 2023) for the 6,501 children receiving mental health services in LA (Louisiana Office of Behavioral Health, Office of Behavioral Health, 2021). However, responses to calls for participants did not result in this intended sample size and the overall sample size for the study was 39 participants, consisting of 17 clinicians, 19 caregivers, and 3 clients. Clients were required to have a Child and Adolescent Level of Care Utilization System (CALOCUS) (American Academy of Child and Adolescent Psychiatry & American Association of Community Psychiatrists, 1999) score of 3 or 4 and been enrolled in treatment for at least 3 months prior to inclusion in this study. Participant selection for this study consisted of those individuals who fit the inclusion criteria and voluntarily completed their assigned PIPQ.

Response Data

There were 58 total responses on the study survey to the call for participants between direct contact with 27 MHR agencies, 9 social media postings each to 8 different mental health clinician social media groups, and snowball sampling procedures that resulted in 104 emails from interested participants. Of the 27 MHR agencies contacted, 7 reported that they would be interested in participating, 3 reported that they would consider participating, and 17 reported that they would not be interested in participating. Of the 58 responses to the survey, 10 respondents did not list an agency or other identifying information required at the beginning of the survey with 2 respondents identifying as caregivers and 1 respondent identifying as a clinician. One of these caregivers answered the survey. Between the agencies reported on the survey, there was a mixture of responses, mostly between caregivers and clinicians, some of whom followed participation instructions and others who did not.

Nine Agencies had clinicians who participated but did not follow participation instructions. One agency had a client complete the survey who did not follow participation instructions and was also ineligible for the study due to falling outside of the age range of the study. Another agency had 1 clinician, 10 caregivers, and 10 clients participate and follow participation instructions. However, 8 of those 10 clients fell outside of the age range for inclusion criteria in the study. One agency had 1 caregiver participate but not follow participation instructions and 1 client who participated but did not follow participation instructions and fell outside of the age range for inclusion criteria in the study. Another agency had 1 clinician participate and follow participation instructions and one other had 1 caregiver participate but not follow participation instructions.

Explanatory Qualitative Data

Agencies that either were uninterested in participating in the study or were unable to find clinicians willing to participate or indicated that the main barrier to participation was being short-staffed due to high clinician turnover, which led to overworked and stressed clinicians who were currently engaging poorly in their clinical duties and would not be interested in an additional responsibility by participating in the study. Agencies also reported multiple policy changes from the Louisiana Department of Health that were complicating clinician paperwork and prohibiting the addition of any further requirements on clinicians or staff through participation in this study, which further contributed to high clinician turnover rates for MHR agencies across Louisiana. Themes that arose from social media responses also indicated concerns over additional requirements for MHR clinicians and agencies. One response stated that agencies may be unwilling to participate in the study due to the possibility of the study's results leading to additional metrics and criteria for child and adolescent MHR services in Louisiana.

Procedures

Approval for this research was obtained from the Institutional Review Board (IRB) at the University of New Orleans. An informed consent was provided to participants that introduced the researcher as a doctoral student in the Counselor Education program at the University of New Orleans as well as contact information for participants should they have any concerns related to the research. A brief introduction and description of the research, its topic, and its potential risks and benefits was also included in addition to notification of being eligible to win a \$15 Amazon gift card for their participation. Participants were informed that their participation in this study was voluntary and that no identifying information was to be included in the final report or any published materials related to this study. Unique identifiers provided within the survey were only

used to match responses on the PIPQ between the clinician, caregiver, and client versions and were recoded to sequential numbers to maintain confidentiality after responses were gathered from the clinician, caregiver, and client. Participants were notified that pressing the “Next” button on the survey following the informed consent signified their consent to participate in the research.

Data Collection

The 27 MHR agencies that were selected for the participant population in this study were selected using the Louisiana Department of Health’s Medicaid Find a Provider portal (Louisiana Department of Health, n.d.). Agencies were selected from those listed as providing MHR services and that also had a website that stated they provide child and adolescent MHR services. Those agencies were contacted via phone to determine their willingness to participate and to receive consent from the clinic director to send the survey link, which was then distributed to participating MHR clinicians within that agency. A brief introductory presentation to the study was available to agencies that requested this information to provide to staff during staff meetings. However, no agency requested this information to be provided to their staff. Of the 27 agencies contacted, 7 indicated their interest in participating in the study, 3 said that they may be interested, and 17 reported that they would be unwilling or unable to participate. The 7 agencies that said they would participate were Absolute Health, Acadiana Health, Center for Hope, Center for Thriving Families, New Orleans Center for Hope and Change, Total Life Cares, We Care Behavioral Health. Agencies that were unwilling or unable to participate reported being short-staffed, having high staff turnover due to staff stress and being overworked, and poor engagement from clinicians in their clinical responsibilities, which would prevent any further responsibilities being put upon them. Agencies also reported difficulties associated with new

regulations from the Louisiana Department of Health. Therefore, calls for participants were also posted in social media groups designated for Louisiana mental health clinicians (see Appendix). A total of 72 postings over a period of 4 months were made equitably across 8 different social media groups (9 postings to each group) for Louisiana Mental Health Clinicians and an additional 2 postings were made to another Facebook group for mental health clinicians associated with Mental Health Rehabilitation services. These postings were seen 532 times across 6 of the groups and received 27 “Likes” across 4 groups. From these postings, 104 individuals reached out to the researcher directly and 36 responded to responses from the clinician with the participation instructions. Informed consents were provided to all participants via the Qualtrics survey.

As part of the informed consent included in the survey, participants were informed that the survey would take them approximately 20-30 minutes to complete. Participants were asked to create a unique identifier for the survey to group responses between client, caregiver, and clinician participants. Instructions for creating this identifier were provided to participating clinicians and instructed clinicians to use a range of 10 numbers based on their alphabetical order in their agency. As such, the clinician who was first alphabetically in their agency would utilize unique identifiers between 0 and 9, the next clinician alphabetically would utilize unique identifiers between 10 and 19, and so on. Clinicians provided these unique identifiers to clients and their caregivers who were willing to participate so that the first client-caregiver set to agree to participate would receive unique identifier 0, 10, 20, 30, etc. and the second client caregiver set to agree to participate would receive unique identifier 1, 11, 21, 31, etc. depending on the clinician’s unique identifier range. Participants were then asked to select the agency that they are currently working with and select whether they were the clinician, parent, or client. Survey

blocks and skip logic procedures within the Qualtrics survey directed the individual to the appropriate PIPQ survey dependent on their answer. Clinicians completed a combined survey containing both the PIPQ-Caregiver and PIPQ-Client answering from the perspective of their client and client's caregiver.

Instruments

The instrument used for this study was a modified version of the Parent Involvement Project Questionnaire (PIPQ) (Hoover-Dempsey & Sandler, 2005) utilizing both its parent and child formats. Permission to use and modify the PIPQ was provided by Dr. Joan Walker (Joan Walker, email message to author, August 29, 2022)

PIPQ History and Development

The PIPQ is the result of a 3-year, 4-part study (2001-2004) focused on parental involvement in their child's elementary and middle school education (Hoover-Dempsey & Sandler, 2005) and is grounded in the Hoover-Dempsey and Sandler (1997,2005) Model of Parental Involvement. Study 1 focused on parents' motivation for involvement (Model Level 1), Study 2 focused on parents' involvement behaviors (Model Level 2), Study 3 focused on the influence of mechanisms of parental involvement behaviors (Model Level 3) child attributes that contribute to academic success (Model Level 4), and Study 4 examined the interaction of Model Levels 1-4 on student outcomes (Model Level 5).

Study 1

Study 1 (Hoover-Dempsey & Sandler, 2005) sought to better determine why parents become involved in their child's education by using measures for parental role construction focused on themselves ($\alpha = 0.62$), the school ($\alpha = 0.63$), and as a partnership ($\alpha = 0.72$) as well as parental sense of efficacy ($\alpha = 0.80$), and parental perceptions of invitations to become

involved from the school ($\alpha = 0.88$) and their child ($\alpha = 0.60$) to then predict parent's decisions to become involved based on self-reports of parental involvement activities ($\alpha = 0.89$).

Hierarchical regression analyses of these interactions indicated that the strongest interaction existed between parental role construction measures and parent involvement activities ($R^2_{Adj} = .162, F = 58.18, p < .000$). Further investigation into these interactions showed that a partnership-focused ($\beta = .310$) and school-focused ($\beta = -.173$) role construction predicted school-based parent involvement behaviors ($R^2_{Adj} = .137, F = 71.2, p < .000$) and that a partnership-focused ($\beta = .249$) and school-focused ($\beta = -.157$) role construction as well as parents' sense of efficacy ($\beta = .118$) predicted home-based involvement ($R^2_{Adj} = .133, F = 46.270, p < .000$).

Hoover-Dempsey and Sandler (2005) concluded from these interactions that parent involvement increases with a greater sense of shared responsibility between the parent and the school (partnership-focused role construction). This conclusion led to the integration of Levels 1 and 2 from the original model as described in Chapter 1 through a reconceptualization of role-construction for Study 2 to designate these beliefs as parent-focused, school-focused, and partnership-focused with the inclusion of the parents' beliefs about their requirements within these roles. This reconceptualization resulted in Level 1 of the model now conceptualizing the psychological influences on parental involvement behaviors as consisting of Parent's Motivational Beliefs (parental role construction and self-efficacy), Parent's Perceptions of Invitations for Involvement from Others, and Parent's Perceived Life Context (perceptions of available time, energy, and specific skills and knowledge to assist).

Study 2

Study 2 (Hoover-Dempsey & Sandler, 2005) explored the reliability of survey measures focused on parents' perceptions of their skills and knowledge to become involved ($\alpha = 0.83$),

perception of their available time and energy to become involved ($\alpha = 0.84$), and their perception of specific invitations to become involved from the child ($\alpha = 0.70$) and from the teacher ($\alpha = 0.81$). This study included measures from Study 1 as part of the revised role-construction definition created because of the findings in Study 1. Hierarchical regression analyses determined that perceptions of invitations from the child ($\beta = .428$) and teacher ($\beta = .283$) were the strongest predictors of total involvement from the parent ($F = .181, p < .000$). Perceptions of time and energy ($\beta = .221$), partnership-focused role construction ($\beta = .181$), and school-focused role construction ($\beta = -.082$) also demonstrated an interaction effect with parent involvement. Specific invitations for the child ($\beta = .446$), the parent's sense of efficacy to help the child ($\beta = .253$), and perceptions of time and energy ($\beta = .142$) predicted home-based involvement ($R^2_{Adj} = .378, F = 61.12, p < .000$) with school-focused ($\beta = -.116$) and partnership-focused ($\beta = .088$) role constructions also predicting this interaction. Perceptions of invitations to become involved from the child ($\beta = .178$) and teacher ($\beta = .338$) as well as perceptions of time and energy ($\beta = .178$), and efficacy ($\beta = -.80$) along with partnership- ($\beta = .175$) and parent-focused ($\beta = -.088$) role constructions all predicted school-based involvement behaviors ($R^2_{Adj} = .548, F = 100.67, p < .000$). These results indicated a strong influence of invitations from others, perceptions of time and energy, and a partnership-focused role construction on parent's involvement decisions.

Study 3

Study 3 explored the reliability of survey measures for the behaviors parents use when involved at Level 2 (encouragement, modeling, reinforcement, and instruction), how children perceive this involvement (Level 3), and the outcomes of these factors on student attributes (proximal outcomes) that are conducive to academic achievement (academic self-efficacy, intrinsic motivation to learn, self-regulatory strategy use and knowledge, and social self-efficacy

to relate to teachers) at Level 4. All measures showed acceptable reliability across the levels: Level 2 ($\alpha = 0.81$ to 0.89), Level 3 ($\alpha = 0.69$ to 0.87), and Level 4 ($\alpha = 0.64$ to 0.85). This study also explored the relationships between Levels 2, 3, and 4 and determined that there were relationships between parent and student reports of parent involvement behaviors ($r = .22, p < .01$), parent involvement behaviors and proximal outcomes ($r = .20, p < .01$), and student reports of parent involvement and proximal outcomes ($r = .60, p < .01$). Mediation analyses of these relationships determined that student perceptions of parent involvement mediated the relationship between parent reports of involvement and proximal outcomes. Hierarchical analysis of these relationships revealed that proximal outcomes were significantly predicted by parent reports of involvement ($R^2_{Adj} = .039, F = 17.890, p < .000; t = 4.230, p < .000$) and student reports of parental involvement ($R^2_{Adj} = .357, F = 234.393, p < .000; t = 15.310, p < .000$), even when including parent reports of involvement ($R^2_{Adj} = .361, F = 119.431, p < .000$ [parent report standardized $\beta = .072, t = 1.796, ns$; student report $\beta = .714$, standardized $\beta = .583, t = 14.559, p < .000$]).

Study 4

Study 4 (Hoover-Dempsey & Sandler, 2005) sought to determine how well the Hoover-Dempsey and Sandler (1995, 1997) Model of Parental Involvement worked to describe the influences on and effects of parent involvement in their child's education. This study examined the predictive effects of Level 1 measures on Level 2 involvement behaviors as well as whether constructs at Levels, 2, 3, and 4 sequentially predict each other in addition to predicting overall student outcomes. This study integrated results from the previous 3 studies, resulting in some scales being shorter to improve overall survey length and completion. Changes in alpha scores as a result of this alteration are listed below. Hierarchical regressions demonstrated that there is an

interaction between Level 1 and 2 constructs with 36.9% of the variance in total involvement predicted by Level 1 constructs ($F = 53.122, p < .000$). There were also significant relationships ($p < .05$) between parent involvement behaviors, student perceptions of these behaviors, and proximal outcomes with parent involvement behaviors affecting student self-efficacy, self-regulatory strategies, and intrinsic motivation. Parent reports of involvement were also positively related to overall student achievement, but Hoover-Dempsey and Sandler (2005) clarify that the scores available to measure student achievement were from the year prior to the study.

Mediational analyses also demonstrated that the relationship between parent involvement behaviors and proximal outcomes were mediated by the student's perceptions of these involvement behaviors, leading to the relationships between parent reports and proximal outcomes becoming insignificant when adding student reports of involvement ($R^2_{Adj} = .469, F = 158.67, p < .000$ [parent report standardized $\beta = -.01, t = ns$; student report standardized $\beta = .69, t = 17.54, p < .000$]). Results from this study supported Hoover-Dempsey and Sandler's hypothesis that Level 1 constructs would predict Level 2 involvement behaviors, which in turn, predict student perceptions of these behaviors.

Alpha Scores for Revised Model and Survey Measures

Scale	alpha
<i>Level 1 (revised model)</i>	
<i>Personal motivators of involvement</i>	
Parental role construction	
Role activity beliefs (10 items)	.80
Valence toward school (6 items)	.85
Sense of efficacy for helping child succeed in school (7 items)	.78
<i>Parental perceptions of invitations to involvement</i>	
General invitations from the school (6 items)	.88
Specific invitations from the child (6 items)	.70
Specific invitations from the teacher (6 items)	.81
<i>Parents' perceived life context</i>	
Perceptions of knowledge and skills (9 items)	.83

Perceptions of time and energy (6 items)	.84
<u>Level 2 (revised model)</u>	
<i>Parent's report of involvement forms</i>	
Home-based involvement activities (5 items)	.85
School-based involvement activities (5 items)	.82
Total involvement activities (10 items)	.76
<i>Parent's report of involvement mechanisms</i>	
Encouragement (13 items)	.92
Modeling (14 items)	.94
Reinforcement (13 items)	.96
Instruction (15 items)	.92
<u>Level 3 (revised model): Student's perceptions of parent's involvement</u>	
Student reports of parental encouragement (12 items)	.87
Student reports of parental modeling (10 items)	.75
Student reports of parental reinforcement (12 items)	.87
Student reports of parental instruction (15 items)	.86
<u>Level 4 (revised model): Student's report of proximal outcomes of involvement</u>	
Student report of academic self-efficacy (3 items)	.71
Student report of intrinsic motivation to learn (3 items)	.66
Student report of self-regulatory strategy use (4 items)	.61
Student report of social self-efficacy for relating to teachers (4 items)	.72
<u>Level 5 (revised model): Student distal outcome: summary measure of achievement</u>	
State's Annual Comprehensive Achievement Assessment Package (TCAP) (Hoover-Dempsey & Sandler, 2005)	

The PIPQ

The PIPQ has both a parent and a child version. The parent version consists of 121 items that assess for Level 1-3 of the Parent Involvement Method (Hoover-Dempsey & Sandler, 1997, 2005). Question responses are formatted on a 6-point Likert scale arranged by the variable being measured with each group having its own description for these Likert points. Each of the 6 questions in the Valence Towards School scale ($\alpha = 0.85$) utilized different descriptions for each Likert scale: disliked-like, were mean-were nice, ignored-cared about me, bad-good, an outsider-

I belonged, and failure-success. The Parental Self-Efficacy Scale ($\alpha = 0.78$) consisted of 7 questions answered on a scale from “Disagree very strongly” to “Agree very strongly.” General School Invitations ($\alpha = 0.88$) consisted of 6 questions split across 2 sections and were also answered on a scale from “Disagree very strongly” to “Agree very strongly.” Specific Invitations from Teachers ($\alpha = 0.81$) consisted of 6 questions answered on a scale from “Never” to “A few times a week.” Role Beliefs ($\alpha = 0.80$) were measured using 10 questions answered on a scale from “Disagree very strongly” to “Agree very strongly.” Parent Perceptions of Knowledge and Skills ($\alpha = 0.83$) utilized 9 questions and Parent Perceptions of Time and Energy ($\alpha = 0.84$) utilized 6 questions answered on a scale from “Disagree very strongly” to “Agree very strongly.” Involvement Activities ($\alpha = 0.76$) consisted of 10 questions answered on a scale from “Never” to “Daily.” Parent Reports of Encouragement ($\alpha = 0.92$), Modeling ($\alpha = 0.75$), Reinforcement ($\alpha = 0.96$), and Instruction ($\alpha = 0.92$) were 4 separate scales consisting of 13, 14, 13, and 15 questions respectively answered on a scale from “Not at all true” to “Completely true.” Specific Invitations from the Child ($\alpha = 0.70$) were measured using 6 questions answered on a scale from “Never” to “Daily.” The PIPQ-Parent also has a 10-question demographic survey assessing for parent and spousal gender, occupation, work experience, education level as well as average income, children in the home, and identified race/ethnicity.

The PIPQ-Child consists of 63 questions that assess for Levels 3 and 4 of the Parent Involvement Method (Hoover-Dempsey & Sandler, 1997, 2005). Questions are answered on a 4-point Likert scale ranging from “Not true” to “Very true.” Scales are broken down to assess student perceptions of parent modeling (10 questions) ($\alpha = 0.75$), parent instruction (15 questions) ($\alpha = 0.86$), parent encouragement (12 questions) ($\alpha = 0.87$), and parent reinforcement (12 questions) ($\alpha = 0.87$). For Level 4 of the model, students provide self-report of their active

engagement in school as defined by their self-efficacy (3 questions) ($\alpha = 0.71$), intrinsic motivation to learn (3 questions) ($\alpha = 0.66$), use of self-regulatory skills (4 questions) ($\alpha = 0.61$), and their relationship with their teacher (4 questions) ($\alpha = 0.72$).

Clinical Modifications to the PIPQ

This study attempted to modify the language used in the PIPQ to alter it from an educational measure to a clinical one. Strickland (2015) determined that alpha coefficients for measures remained acceptable after minor modifications to the PIPQ. Alterations included changing pronouns to be gender neutral, changing “school” or “education” to “agency,” “session,” or “therapy;” “student” to “client;” “grades” to “progress;” “teacher” to “therapist;” and “homework” to “therapeutic homework” for both the subscale labels as well as within questions. Additionally, 2 questions were omitted from the School-Based Involvement scale due to there being no applicable clinical substitution for “Reads with this child” and “Goes to the school’s open-house.” “Organize my schoolwork” was also omitted from the Student Report of Parent’s Use of Reinforcement scale for similar reasons. Additional changes to the survey were to alter the demographics survey’s list of racial/ethnic identities to be more inclusive and to include an assessment of the length of the current therapeutic relationship with the therapist and agency and the overall length of mental health services for the client.

Research Questions and Data Analysis

Data was analyzed using SPSS Premium GradPack Version 29 with an alpha level of .05 set to address the potential for Type 1 errors. Procedures to address missing data were determined based on the randomness of the missing data: missing completely at random (MCAR), missing at random (MAR), and missing not at random (MNAR) (Tabachnick & Fidell, 2013) after conducting a Missing Values Analysis in SPSS. Results of this analysis are listed in

Chapter 4. The following statistical procedures will be used to analyze the study's research questions.

Research Question 1

Is the Hoover-Dempsey and Sandler Model of Parental Involvement (2005) and its associated measure, the Parent Involvement Project Questionnaire (PIPQ) a reliable measure for therapists to determine caregiver involvement in their child's mental health counseling?

Data Analysis

Cronbach's alpha was calculated using SPSS Reliability Analysis for each subscale of the PIPQ-Parent, PIPQ-Client, and PIPQ-Clinician surveys. Item questions were selected dependent on their subscale classification so that Valence Towards Therapy, Parental Self-Efficacy, Specific Invitations from Clinician, Role Beliefs, Parent Perceptions of Knowledge and Skills, Perceptions of Personal Time and Energy, Involvement Activities, Parent Reports of Encouragement, Parent Reports of Modeling, Parent Reports of Reinforcement, Specific Invitations from the Client, Parent Reports of Providing Instruction were each measured for reliability separately for the PIPQ-Caregiver. Alpha coefficients for the PIPQ-Client were calculated separately for the various subscale classifications as well to determine reliability for the Client Perception of Parent Modeling, Client Perception of Parent Instruction, Client Perception of Parent Encouragement, Client Perception of Parent Reinforcement, Client Report of Self-Efficacy, Client Report of Intrinsic Motivation, Client Report of Use of Self-Regulatory Skills, and Client Report of Relationship with Their Clinician subscales. Items 2, 3, and 5 from the Parental Self-Efficacy subscale were reverse scored due to their phrasing. Inter-item correlations, intraclass coefficients, and covariances were also selected to obtain correlation

coefficients for items within the measure. Summary measures were obtained for each subscale to determine mean and variance of individual items.

Research Question 2

How do therapist ratings on the PIPQ differ from the caregiver and client in a sample of mental health rehabilitation (MHR) therapists and participants?

Data Analysis

A two-tailed Independent T-Test was performed to examine differences in ratings between therapist's completion of the PIPQ-Caregiver and PIPQ-Client, labelled as the PIPQ-Clinician, with the caregiver and client self-reports on those measures. Each subscale on the PIPQ-Clinician was compared with the equivalent subscale from the PIPQ-Caregiver and PIPQ-Client to determine differences in the mean scores on these scales. These subscales were listed as the dependent variables for each T-Test completed with Therapist ratings being set as grouping variable "0" and the Caregiver or Client ratings set as grouping variable "1" in SPSS.

Research Question 3

How do caregiver Level 1 PIPQ reports of their motivational beliefs, perceptions of invitations for involvement, and perceived life context impact caregiver Level 2 PIPQ reports of their involvement behaviors?

Data Analysis

The effect of Level 1 measures on Level 2 reports was calculated using forced entry linear regressions. PIPQ-Parent Level 1 subscales were entered as the predictors (independents) with PIPQ-Parent Level 2 subscales entered as the outcomes (dependents). Separate simple regressions were conducted for each Level 1 subscale's effect on each Level 2 subscale. All

statistics options were selected other than the covariance matrix option. Confidence interval probabilities were kept at .05 for each analysis and missing values were excluded listwise.

Research Question 4

How do caregiver Level 1 PIPQ reports of their motivational beliefs, perceptions of invitations for involvement, and perceived life context impact client Level 3 PIPQ reports of their perception of their caregiver's involvement behaviors?

Data Analysis

The effect of Level 1 measures on Level 3 reports was calculated using forced entry linear regressions. PIPQ-Parent Level 1 subscales were entered as the predictors (independents) with PIPQ-Client Level 3 subscales entered as the outcomes (dependents). Separate simple regressions were conducted for each Level 1 subscale's effect on each Level 3 subscale. All statistics options were selected other than the covariance matrix option. Confidence interval probabilities were kept at .05 for each analysis and missing values were excluded listwise.

Summary

Chapter 3 discussed the purpose and associated research questions for the current study. The methodology and procedures used to collect data, including participant selection, related to these questions were also discussed as well as the statistical procedures used to analyze the collected data. The Hoover-Dempsey and Sandler Model of Parental Involvement (2005) and its associated survey, the PIPQ were also explored, including alterations to the PIPQ to make it applicable in a clinical format.

Chapter IV

Results

The purpose of this study was to explore the potential use and modification of the Hoover-Dempsey and Sandler Model of Parental Involvement (2005) and the Parent Involvement Project Questionnaire (PIPQ) (Hoover-Dempsey & Sandler, 2005) from an educational model to a clinical one. This alteration would provide new insight to how treatment, family, caregiver, and child factors influence parent engagement in their child's Mental Health Rehabilitation (MHR) services to help improve the effectiveness of this widely utilized form of Community Mental Health Counseling (CMHC) treatment in Louisiana. Better understanding the potential barriers to treatment engagement can improve barrier identification and aid early intervention procedures to improve treatment outcomes (Baker-Ericzén et al., 2013; Carlson et al., 2012; Karpenko & Owens, 2013; Lyon & Budd, 2010; Stein et al., 2013).

Participants ($n = 39$) consisted of MHR client ($n = 3$), their caregiver ($n = 19$) and their MHR clinician ($n = 17$) who were recruited through a combination of direct contact with agencies, postings to mental health clinician social media groups, and snowball sampling techniques. Participants completed their applicable version of the PIPQ dependent on whether they were the client, caregiver, or clinician. The initial dataset consisted of 58 responses to the survey with 19 responses eliminated due to not completing the survey, clients being outside of the inclusion criteria age range, and clinicians working at agencies that do not provide child and adolescent MHR services, therefore not falling within inclusion criteria for this study. Qualitative data from recruitment procedures and contact with recruited participants are included to provide explanatory analyses for potential reasons of low participation rates.

This chapter describes the results of the research questions addressed in the current study. Analyses and procedures used for missing data are described as well as participant and participation descriptive statistics. Alpha levels for each survey subscale are presented to indicate the reliability of these scales for the current sample as well as independent t-test results to explore the differences between clinician ratings from their client and client's caregiver's ratings on these subscales. Additionally, results from multiple and simple regression analyses are provided to explore the impact of various caregiver subscale results on their report of engagement behaviors and the client's rating of their perception of these caregiver engagement behaviors.

Missing Values Analysis

Missing data in the dataset were coded to -10 in SPSS and a Missing Value Analysis (MVA) was conducted for the Caregiver, Client, and Clinician datasets to determine the randomness of the missing data. The randomness of the missing values was analyzed using Little's MCAR test in SPSS. Results from the analysis indicated that missing responses in the Caregiver dataset ranged from 1-3 responses per variable for respondents or 5.3%-21.1% missing values per variable. Missing responses in the Client dataset consisted of 3 variables missing 1 response or 33.3% missing values per variable. Missing responses in the Clinician dataset ranged from 1-3 responses per variable for respondents or 5.9%-17.6% missing values per variable. Significance levels for the Little's MCAR test were 1.00 for Caregiver, Client, and Clinician datasets, indicating that the null hypothesis for this test that data was missing completely at random should not be rejected. Chi-Square values for all 3 datasets was 0.00 and these extreme values for the significance and Chi-Square values could be due to low participant numbers in this sample. Due to the MVA indicating that data was missing completely at random, missing values

were addressed using Multiple Imputation, creating 5 additional imputation datasets and a pooled dataset across these imputation iterations in addition to the original dataset with missing values. Both original and pooled datasets are reported in this chapter due to differences in the data provided between original and pooled datasets through SPSS's Multiple Imputation procedures. Pooled datasets also presented with higher degrees of freedom, which could result in exaggerated reports of statistical significance in the pooled datasets. Therefore, both datasets are necessary to fully understand the data and statistical results.

Descriptive Statistics

Frequency Descriptive Statistics were calculated for the Caregiver, Client, and Clinician datasets respectively. Thirty-nine participants completed their respective surveys based on if they were the Caregiver ($n = 19$), Client ($n = 3$), or Clinician ($n = 17$). Scores for each question from these surveys were summed and then averaged by subscale to create individual participant scores for each subscale of their survey responses. Data was analyzed using the Split File function in SPSS with groups organized by imputation number. Data is reported for both original datasets as well as pooled datasets from the multiple imputation due to differences in statistical measurements presented between imputation datasets and inconsistent methods for creating pooled results by hand between imputation datasets.

Caregiver

Caregiver Level 1 measures consisted of 8 subscales: Valence Towards Therapy, Self-Efficacy, Perceptions of General Invitations from the Agency, Perceptions of Specific Invitations from the Clinician, Role Activity Beliefs, Perceptions of Personal Knowledge and Skills, Perceptions of Personal Time and Energy, and Perceptions of Specific Invitations from the Client. The Valence Towards Therapy subscale was completed by caregivers with previous

experience in their own personal therapy ($n = 9$). Ratings range from 1 (low endorsement of subscale) to 6 (high endorsement of subscale). Minimal differences were noted between average scores for the original dataset with missing values and the pooled dataset from the multiple imputation procedure, indicating potential congruence between these scores and support for use of the imputation method as a means of addressing missing data (see Table 1). Caregivers reported average scores between 3.35 and 4.63 across the original and pooled datasets, indicating that caregivers either endorsed slightly or slightly did not endorse their parental role construction and sense of efficacy in their child’s therapy as well as their perceptions of invitations from the client, clinician, and agency. Role Activity Beliefs were the highest rated subscales, indicating that caregivers perceived their role in their child’s therapy, time and energy to engage in this role, and invitation to become engaged from the agency were the highest for caregivers in this sample.

Table 1

Caregiver Level 1 Measures

Subscale	Original Dataset		Pooled Dataset	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SEM</i>
VTT ^a	4.31	1.72	4.31	.57
SE	3.35	.44	3.35	.10
PGIA	4.28	.80	4.38	.17
PSIClin	3.91	1.00	3.99	.21
RAB	4.53	.77	4.63	.14
PPKS	4.18	.91	4.18	.21
PPTE	4.29	.89	4.34	.19
PSIClt	4.01	1.01	4.05	.23

Note: n = 19

VTT= Valence Towards Therapy; SE= Self-Efficacy; PGIA= Perceptions of General Invitations from the Agency; PSIClin= Perceptions of Specific Invitations from the Clinician; RAB= Role

Activity Beliefs; PPKS= Perceptions of Personal Knowledge and Skills; PPTE= Perceptions of Personal Time and Energy; PSIClt= Perceptions of Specific Invitations from the Client

^a VTT completed by the 9 caregivers with prior therapy experience ($M = 4.42, SD = 1.72$)

Range: 1-6

* $p < .05$

Caregiver Level 2 measures consisted of 6 subscales: Choice of Involvement Activities: Client-Specific, Choice of Involvement Activities: Agency-General, Report of Encouragement Behaviors, Report of Modeling Behaviors, Report of Reinforcement Behaviors, and Report of Instruction Behaviors. Scores ranged from 1 (low report of these behaviors) to 6 (high report of these behaviors). Mean differences between original dataset and pooled dataset showed more variance than level 1 measures with the greatest difference being between Report of Encouragement Behaviors' original average ($M = 3.98$) and pooled average ($M = 4.22$) (see Table 2). Caregivers reported average scores between 1.88 and 4.38 across the original and pooled datasets, indicating a range of endorsement of engagement behaviors from “Never” to “A few times a week.” Report of Modeling Behaviors were the highest rated reported behaviors, indicating a perception of more frequent engagement in these behaviors in their child’s therapy.

Table 2

Caregiver Level 2 Measures

Subscale	Original Dataset		Pooled Dataset	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SEM</i>
CIACS	2.01	.42	2.09	.08
CIAAG	1.88	.64	2.00	.12
REB	3.98	.82	4.22	.17
RMB	4.36	.65	4.38	.15
RRB	4.38	.75	4.38	.17
RIB	4.27	.97	4.36	.20

Note: n = 19

CIACS= Choice of Involvement Activities: Client-Specific; CIAAG= Choice of Involvement Activities: Agency-General; REB= Report of Encouragement Behaviors; RMB= Report of Modeling Behaviors; RRB= Report of Reinforcement Behaviors; RIB= Report of Instruction Behaviors

Range: 1-6

* $p < .05$

Client

Client Level 3 measures consisted of 4 subscales: Report of Caregiver Modeling Behaviors, Report of Caregiver Use of Instruction Behaviors, Report of Caregiver Encouragement Behaviors, and Report of Caregiver Use of Reinforcement Behaviors. Scores ranged from 1 (low report of caregiver behaviors) to 4 (high report of caregiver behaviors). Mean scores between the original dataset and pooled dataset from the imputation procedure were identical, indicating potential congruence between these scores and support for use of the imputation method as a means of addressing missing data (see Table 3). Client's reported average scores between 2.81 and 3.43 for both the original and pooled datasets, indicating that clients believed their caregiver's use of various engagement behaviors were either "A little true," "Pretty true," or "Very true." Report of Caregiver Modeling were the highest rated subscales, indicating that client's in this sample perceived these engagement behaviors the most effectively from their caregivers.

Table 3*Client Level 3 Measures*

Subscale	Original Dataset		Pooled Dataset	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SEM</i>
RCMB	3.43	.49	3.43	.28
RCUIB	2.91	.08	2.91	.04
RCEB	3.03	.27	3.03	.15
RCURB	2.81	.32	2.81	.18

Note: n = 3

RCMB= Report of Caregiver Modeling Behaviors; RCUIB= Report of Caregiver Use of Instruction Behaviors; RCEB= Report of Caregiver Encouragement Behaviors; RCURB= Report of Caregiver Use of Reinforcement Behaviors

Range: 1-4

* $p < .05$

Client Level 4 measures consisted of 2 subscales: Self-Report of Active Engagement Behaviors and Self-Report of Clinician Relationship. Scores ranged from 1 (low endorsement of behaviors) and 4 (high endorsement of behaviors). Mean scores between the original dataset and pooled dataset from the imputation procedure were similar, indicating potential congruence between these scores and support for use of the imputation method as a means of addressing missing data (see Table 3). Client's reported average scores between 2.81 and 3.43 for both the original and pooled datasets, indicating that clients self-reported their engagement in therapy and relationship with their clinician were either "A little true," "Pretty true," or "Very true." Client Self-Report of Active Engagement Behaviors was the highest average score for the pooled dataset with Self-Report of Clinician Relationship having the highest average score for the original dataset.

Table 4*Client Level 4 Measures*

Subscale	Original Dataset		Pooled Dataset	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SEM</i>
SRAEB	3.06	.29	3.14	.10
SRCR	3.13	.12	3.13	.07

Note: n = 3

SRAEB= Self-Report of Active Engagement Behaviors; SRCR= Self-Report of Clinician Relationship

Range: 1-4

**p* < .05

Clinician

Clinicians completed both caregiver and client surveys and scaled their responses according to their perception of how the client and the caregiver would rate themselves on these subscales. Ranges for these subscales were the same as the clinician and client versions of the survey with caregiver Level 1 and 2 ratings ranging from 1 (low endorsement) to 6 (high endorsement) and client Level 3 and 4 ratings ranging from 1 (low endorsement) to 4 (high endorsement). Clinicians did not complete the Valence Towards Therapy subscale for caregiver Level 1 subscales. Minimal differences were noted between average scores for the original dataset with missing values and the pooled dataset from the multiple imputation procedure for Clinician Rating of Caregiver Level 1 Measures (see Table 5) and Clinician Rating of Caregiver Level 2 Measures (see Table 6). Scores were identical between original and pooled datasets for Clinician Rating of Client Level 3 Measures (see Table 7), and Clinician Rating of Client Level 4 Measures (see Table 8). These similarities indicate potential congruence between these scores and support for use of the imputation method as a means of addressing missing data.

Clinicians reported average scores between 3.76 and 5.14 across the original and pooled datasets for Caregiver Level 1 Measures, indicating that clinicians perceived that caregivers would either slightly not endorse, slightly endorse, endorse, or strongly endorse their parental role construction and sense of efficacy in their child’s therapy as well as their perceptions of invitations from the client, clinician, and agency. Clinicians rated caregiver Self-Efficacy the lowest, indicating a perception that caregivers either slightly disagree or slightly agree that they know how to help their child succeed in therapy. Clinicians rated Caregiver Role Activity Beliefs and Perceptions of Personal Knowledge and Skills the highest, indicating a perception that caregivers agree that it is their responsibility to take a role in their child’s therapy and believe that they have the skills and knowledge to engage in this role.

Table 5

Clinician Rating of Caregiver Level 1 Measures

Subscale	Original Dataset		Pooled Dataset	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SEM</i>
SE	3.76	.79	3.76	.19
PGIA	4.10	.91	4.29	.11
PSIClin	4.08	1.64	4.58	.18
RAB	4.79	1.42	5.14	.16
PPKS	4.82	1.44	5.12	.18
PPTE	4.75	1.38	5.05	.16
PSIClt	4.47	1.20	4.57	.23

Note: n = 17

SE= Self-Efficacy; PGIA= Perceptions of General Invitations from the Agency; PSIClin= Perceptions of Specific Invitations from the Clinician; RAB= Role Activity Beliefs; PPKS= Perceptions of Personal Knowledge and Skills; PPTE= Perceptions of Personal Time and Energy; PSIClt= Perceptions of Specific Invitations from the Client

Range: 1-6

**p* < .05

Clinicians reported average scores between 4.93 and 2.34 across the original and pooled datasets for Caregiver Level 2 Measures, indicating a range of low endorsement to high endorsement of engagement behaviors in their child’s therapy. Clinicians rated Caregiver Choice of Involvement Activities: Client-Specific and Caregiver Choice of Involvement Activities: Agency-General the lowest, indicating a perception that caregivers do not agree that they engage in behaviors related to involvement in agency requirements and in discussing therapy with their child. Clinicians rated Report of Encouragement Behaviors and Report of Instruction Behaviors the highest, indicating a perception that caregivers highly agree that they instruct their child in ways to engage effectively in therapy and encourage them to utilize these skills.

Table 6

Clinician Rating of Caregiver Level 2 Measures

Subscale	Original Dataset		Pooled Dataset	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SEM</i>
CIACS	2.28	.70	2.42	.09
CIAAG	2.21	.72	2.34	.11
REB	4.91	.68	4.96	.14
RMB	4.79	.86	4.79	.21
RRB	4.89	.66	4.89	.16
RIB	4.93	.73	4.93	.18

Note: n = 17

CIACS= Choice of Involvement Activities: Client-Specific; CIAAG= Choice of Involvement Activities: Agency-General; REB= Report of Encouragement Behaviors; RMB= Report of Modeling Behaviors; RRB= Report of Reinforcement Behaviors; RIB= Report of Instruction Behaviors

Range: 1-6

**p* < .05

Clinicians reported average scores between 3.29 and 3.32 for the original and pooled datasets for Client Level 3 Measures, indicating that clinicians perceived that the client was

likely to perceive engagement behaviors from their caregivers. Clinicians rated Client Report of Caregiver Use of Instruction Behaviors the highest, indicating a perception that clients would perceive their caregivers engaging in these behaviors the most.

Table 7

Clinician Rating of Client Level 3 Measures

Subscale	Original Dataset		Pooled Dataset	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SEM</i>
RCMB	3.29	.42	3.29	.10
RCUIB	3.32	.31	3.32	.07
RCEB	3.29	.45	3.29	.11
RCURB	3.32	.46	3.32	.11

Note: n = 17

RCMB= Report of Caregiver Modeling Behaviors; RCUIB= Report of Caregiver Use of Instruction Behaviors; RCEB= Report of Caregiver Encouragement Behaviors; RCURB= Report of Caregiver Use of Reinforcement Behaviors

Range: 1-4

**p* < .05

Clinicians reported average scores of 3.48 and 3.27 across the original and pooled datasets, indicating that clinicians perceived that client's endorsed having positive rapport and active engagement behaviors in their therapy. Clinician rating of Self-Report of Active Engagement Behaviors (*M* = 3.48) was slightly higher than Clinician rating of Self-Report of Clinician Relationship (*M* = 3.27).

Table 8

Clinician Rating of Client Level 4 Measures

Subscale	Original Dataset		Pooled Dataset	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SEM</i>
SRAEB	3.48	.58	3.48	.14
SRCR	3.27	.54	3.27	.13

Note: n = 17

SRAEB= Self-Report of Active Engagement Behaviors; SRCR= Self-Report of Clinician Relationship

Range: 1-4

**p* < .05

Research Question 1

Is the Hoover-Dempsey and Sandler Model of Parental Involvement (2005) and its associated measure, the Parent Involvement Project Questionnaire (PIPQ) a reliable measure for therapists to determine caregiver involvement in their child’s mental health counseling?

Data Analysis

Cronbach’s alpha scores were calculated for Caregiver Level 1 and 2 subscales, Client Level 3 and 4 subscales, and Clinician Level 1, 2, 3, and 4 subscales. Multiple Imputation was used to address missing variables in the original dataset and created 5 imputation datasets in addition to the original dataset with missing variables. A pooled dataset was not available for reliability analysis in SPSS. Therefore, the original dataset alpha scores are reported alongside the 5 imputation datasets.

Caregiver Level 1 and Level 2.

Valence Towards Therapy, Perceptions of Specific Invitations from the Clinician, Role Activity Beliefs, Perceptions of Personal Knowledge and Skills, and Perceptions of Specific Invitations from the Client all had alpha levels .70 or higher (see Table 9). These alpha scores

indicate a high reliability for the questions associated with each subscale. Perceptions of General Invitations from the Agency and Perceptions of Personal Time and Energy also had alpha scores that were approaching .70 across the imputations, with Perceptions of General Invitations from the Agency having an alpha score greater than .70 for the original dataset but not for any of the imputed datasets. These alpha scores indicate the possibility of improved and more accurate reliability with a larger sample size. SPSS reported that the negative alpha scores on the Self-Efficacy subscale were due to a negative average covariance among the items, which violated the assumptions of the reliability model. This interaction mirrors reports by Green et al. (2007) that the PIPQ experiences multicollinearity, specifically between the Self-Efficacy and Perceptions of Personal Knowledge Skills and subscales. Choice of Involvement Activities: Client-Specific was the only Level 2 subscale that was not .70 or greater (see Table 10).

Table 9

Caregiver Level 1 Scales and Reliabilities

Subscale	Alpha Levels per Dataset and Imputation					
	Original	1	2	3	4	5
VTT ^a	.97	.97	.97	.97	.97	.97
SE	-.71	-.71	-.71	-.71	-.71	-.71
PGIA	.72	.68	.67	.65	.68	.67
PSIClin	.70	.72	.71	.72	.71	.70
RAB	.80	.75	.76	.77	.76	.77
PPKS	.82	.82	.82	.82	.82	.82
PPTE	.69	.66	.66	.66	.66	.66
PSIClt	.80	.79	.79	.78	.79	.79

Note: n = 19

VTT= Valence Towards Therapy; SE= Self-Efficacy; PGIA= Perceptions of General Invitations from the Agency; PSIClin= Perceptions of Specific Invitations from the Clinician; RAB= Role Activity Beliefs; PPKS= Perceptions of Personal Knowledge and Skills; PPTE= Perceptions of Personal Time and Energy; PSIClt= Perceptions of Specific Invitations from the Client

^a Valence Towards Therapy completed by the 9 caregivers with prior therapy experience
^{*} $p < .05$

Table 10

Caregiver Level 2 Scales and Reliabilities

Subscale	Alpha Levels per Dataset and Imputation					
	Original	1	2	3	4	5
CIACS	.63	.58	.61	.54	.54	.62
CIAAG	.81	.78	.78	.78	.79	.81
REB	.86	.82	.82	.82	.83	.82
RMB	.82	.81	.82	.81	.82	.82
RRB	.84	.84	.84	.84	.84	.84
RIB	.94	.92	.92	.92	.92	.92

$n = 19$

CIACS= Choice of Involvement Activities: Client-Specific; CIAAG= Choice of Involvement Activities: Agency-General; REB= Report of Encouragement Behaviors; RMB= Report of Modeling Behaviors; RRB= Report of Reinforcement Behaviors; RIB= Report of Instruction Behaviors

^{*} $p < .05$

Client Level 3 and Level 4.

Alpha scores were lower for client subscales, likely due to the low sample size ($n = 3$).

Report of Caregiver Modeling Behaviors and Report of Caregiver Use of Reinforcement

Behaviors both had alpha scores greater than .70 (see Table 11), indicating the potential for

improved alpha scores across all client subscales with a larger sample size. Report of Caregiver

Use of Instruction Behaviors and Report of Caregiver Encouragement Behaviors both had alpha

scores less than .05. Client Level 4 subscales both had negative alpha levels, possibly due to the

small sample size (see Table 12).

Table 11*Client Level 3 Scales and Reliabilities*

Subscale	Alpha Levels per Dataset and Imputation					
	Original	1	2	3	4	5
RCMB	.80	.80	.80	.80	.80	.80
RCUIB	-5.50	-5.50	-5.50	-5.50	-5.50	-5.50
RCEB	.04	.04	.04	.04	.04	.04
RCURB	.80	.80	.80	.80	.80	.80

n = 3

RCMB= Report of Caregiver Modeling Behaviors; RCUIB= Report of Caregiver Use of Instruction Behaviors; RCEB= Report of Caregiver Encouragement Behaviors; RCURB= Report of Caregiver Use of Reinforcement Behaviors

p* < .05Table 12***Client Level 4 Scales and Reliabilities*

Subscale	Alpha Levels per Dataset and Imputation					
	Original	1	2	3	4	5
SRAEB	-.52	-.52	-.52	-.52	-.52	-.52
SRCR	-17.50	-17.50	-17.50	-17.50	-17.50	-17.50

n = 3

SRAEB= Self-Report of Active Engagement Behaviors; SRCR= Self-Report of Clinician Relationship

p* < .05Clinician Rating of Caregiver Level 1 and Level 2.**

Alpha scores for clinician ratings of caregiver Level 1 and Level 2 subscales were .70 or higher for Perceptions of Specific Invitations from the Clinician, Role Activity Beliefs, and Perceptions of Personal Knowledge and Skills, and Perceptions of Specific Invitations from the Client in Level 1 (see Table 13) and Choice of Involvement Activities: Agency-General, Report of Encouragement Behaviors, Report of Modeling Behaviors, Report of Reinforcement

Behaviors, and Report of Instruction Behaviors in Level 2 (see Table 14). Self-Efficacy was the only subscale that was not approaching .70 across Level 1 and Level 2 subscales.

Table 13

Clinician Rating of Caregiver Level 1 Scales and Reliabilities

Subscale	Alpha Levels per Dataset and Imputation					
	Original	1	2	3	4	5
SE	.57	.57	.57	.57	.57	.57
PGIA	.71	.69	.69	.70	.69	.69
PSIClin	.84	.78	.76	.82	.78	.77
RAB	.86	.86	.86	.87	.87	.86
PPKS	.80	.78	.80	.80	.82	.79
PPTE	.64	.62	.61	.62	.62	.66
PSIClt	.89	.87	.90	.89	.86	.86

n = 17

SE= Self-Efficacy; PGIA= Perceptions of General Invitations from the Agency; PSIClin= Perceptions of Specific Invitations from the Clinician; RAB= Role Activity Beliefs; PPKS= Perceptions of Personal Knowledge and Skills; PPTE= Perceptions of Personal Time and Energy; PSIClt= Perceptions of Specific Invitations from the Client

**p* < .05

Table 14

Clinician Rating of Caregiver Level 2 Scales and Reliabilities

Subscale	Alpha Levels per Dataset and Imputation					
	Original	1	2	3	4	5
CIACS	.67	.66	.67	.70	.67	.67
CIAAG	.73	.72	.73	.71	.70	.72
REB	.83	.81	.80	.82	.81	.81
RMB	.89	.89	.89	.89	.89	.89
RRB	.87	.87	.87	.87	.87	.87
RIB	.89	.89	.89	.89	.89	.89

n = 17

CIACS= Choice of Involvement Activities: Client-Specific; CIAAG= Choice of Involvement Activities: Agency-General; REB= Report of Encouragement Behaviors; RMB= Report of Modeling Behaviors; RRB= Report of Reinforcement Behaviors; RIB= Report of Instruction Behaviors

* $p < .05$

Clinician Rating of Client Level 3 and Level 4.

All Level 3 subscales had alpha scores of .70 or higher (see Table 15). Self-Report of Active Engagement had an alpha score greater than .70 for Level 4 and Self-Report of Clinician Relationship was approaching .70 ($\alpha=.64$) (see Table 16).

Table 15

Clinician Rating of Client Level 3 Scales and Reliabilities

Subscale	Alpha Levels per Dataset and Imputation					
	Original	1	2	3	4	5
RCMB	.73	.73	.73	.73	.73	.73
RCUIB	.71	.71	.71	.71	.71	.71
RCEB	.79	.79	.79	.79	.79	.79
RCURB	.84	.84	.84	.84	.84	.84

$n = 17$

RCMB= Report of Caregiver Modeling Behaviors; RCUIB= Report of Caregiver Use of Instruction Behaviors; RCEB= Report of Caregiver Encouragement Behaviors; RCURB= Report of Caregiver Use of Reinforcement Behaviors

* $p < .05$

Table 16

Clinician Rating of Client Level 4 Scales and Reliabilities

Subscale	Alpha Levels per Dataset and Imputation					
	Original	1	2	3	4	5
SRAEB	.83	.83	.83	.83	.83	.83
SRCR	.64	.64	.64	.64	.64	.64

$n = 17$

SRAEB= Self-Report of Active Engagement Behaviors; SRCR= Self-Report of Clinician Relationship

* $p < .05$

Research Question 2

How do therapist ratings on the PIPQ differ from the caregiver and client in a sample of mental health rehabilitation (MHR) therapists and participants?

Data Analysis

Independent t-tests were run to determine differences between clinician ratings from caregiver ratings on Level 1 and Level 2 measures as well as client ratings on Level 3 and Level 4 ratings. Clinician ratings were labeled as grouping variable “0” and caregiver or client ratings were labeled as grouping variable “1.” An alpha level of .05 was utilized. Descriptive Statistics are in Table 1 (p. 74) for Caregiver Level 1 subscales, Table 2 (p. 75) for Caregiver Level 2 subscales, Table 5 (p. 79) for Clinician ratings of Caregiver Level 1 subscales, and Table 6 (p.80) for Clinician ratings of Caregiver Level 2 subscales. Multiple Imputation was used to address missing variables in the original dataset and created 5 imputation datasets in addition to the original dataset with missing variables. A pooled dataset was also created through this process based on the imputation datasets. F values and their significance for the t-test were calculated for the original datasets and the imputation datasets as well as Cohen’s d for effect size, but were not available for the pooled datasets. Values for the t-test, its significance, and 95% confidence intervals were provided for the original datasets, imputed datasets, and the pooled datasets. Significance for these tests ($p < .05$) was determined based on the significance of the pooled t-tests and effect size was determined using the Cohen’s d value for the original dataset. Both the original t-test results and the pooled t-test results are reported due to inconsistencies in the values provided by SPSS between the original and pooled datasets.

Differences Between Clinician and Caregiver Level 1 Values.

Independent t-tests between Clinician and Caregiver ratings on Level 1 subscales identified both significant ($p < .05$) and non-significant ($p > .05$) differences between these ratings (see Table 17).

Significant p-Value and Moderate/Large Effect Size.

Statistically significant differences ($p < .05$) were found between Clinician and Caregiver ratings on the following subscales in the pooled dataset: Perceptions of Specific Invitations from the Clinician, Role Activity Beliefs, Perceptions of Personal Knowledge and Skills, and Perceptions of Personal Time and Energy (see Table 17). No differences in the original dataset were statistically significant ($p < .05$). The Self-Efficacy subscale was also approaching statistical significance ($p = .054$). However, the large degree of freedom values for these pooled data should be noted as a possible indicator that the statistically significant scores are due to these large degrees of freedom. These differences also had moderate ($d > .50$) to large ($d > .80$) effect sizes based on Cohen's d values in the original dataset, indicating high degree of practical significance for these subscale differences. Clinician ratings on these subscales indicated that clinicians in this sample rated caregiver responses on Perceptions of Specific Invitations from the Clinician, Role Activity Beliefs, Perceptions of Personal Knowledge and Skills, and Perceptions of Personal Time and Energy higher than caregivers rated themselves.

Non-Significant p-Value and Moderate/Large Effect Size.

Statistically non-significant differences ($p > .05$) were found between Clinician and Caregiver ratings on the following subscales in the pooled dataset: Perceptions of General Invitations from the Agency and Perceptions of Specific Invitations from the Client (see Table 17). The Self-Efficacy subscale was approaching statistical significance ($p = .054$) but was still

statistically insignificant. However, these differences had a moderate effect size ($d > .50$) for the Self-Efficacy subscale and high effect sizes ($d > .80$) for the Perceptions of General Invitations from the Agency and Perceptions of Specific Invitations from the Client based on Cohen's d values in the original dataset, indicating a strong degree of practical significance for these subscale differences. Clinician ratings on these subscales indicated that clinicians in this sample rated caregiver responses on Perceptions of General Invitations from the Agency lower than caregivers rated themselves and Self-Efficacy and Perceptions of Specific Invitations from the Client and higher than caregivers rated themselves.

Table 17*Differences Between Clinician and Caregiver Level 1 Ratings*

Subscale	Original						Pooled								
	<i>F</i> (1, 34)	<i>p</i> *	<i>t</i>	<i>df</i>	<i>p</i> **	95% CI		<i>d</i>	95% CI		<i>t</i>	<i>df</i>	<i>p</i> **	95% CI	
						<i>LL</i>	<i>UL</i>		<i>LL</i>	<i>UL</i>				<i>LL</i>	<i>UL</i>
SE	4.69	.037	1.93	24.52	.065	-.03	.86	.63	-.01	1.3	1.93		.054	-.01	.84
PGIA	.01	.917	-.64	34	.526	-.76	.40	.85	-.87	.44	-.44	23980	.658	-.49	.31
PSIClin	1.51	.228	.40	34	.695	-.73	1.09	1.34	-.52	.79	2.10	93486	.036	.04	1.14
RAB	1.43	.240	.71	34	.481	-.50	1.03	1.12	-.42	.89	2.38	68398	.017	.09	.92
PPKS	.69	.413	1.64	34	.111	-.16	1.45	1.19	9.13	1.21	3.39	21064	<.001	.40	1.49
PPTE	.22	.642	1.20	34	.238	-.32	1.24	1.15	-.26	1.06	2.81	36798	.005	.22	1.21
PSIClt	.08	.778	1.25	34	.220	-.29	1.21	1.10	-.25	1.08	1.60	274170	.110	-.12	1.16

Note: Caregiver (*n* = 19) and Clinician (*n* = 17)

*p** = one-sided; *p*** = two-sided

CI= confidence interval; UL= upper limit; LL= lower limit

SE= Self-Efficacy; PGIA= Perceptions of General Invitations from the Agency; PSIClin= Perceptions of Specific Invitations from the Clinician; RAB= Role Activity Beliefs; PPKS= Perceptions of Personal Knowledge and Skills; PPTE= Perceptions of Personal Time and Energy; PSIClt= Perceptions of Specific Invitations from the Client

Range: 1-6

**p* < .05

Differences Between Clinician and Caregiver Level 2 Values.

Independent t-tests between Clinician and Caregiver ratings on Level 2 subscales identified both significant ($p < .05$) and non-significant ($p > .05$) differences between these ratings (see Table 18).

Significant p-Value and Moderate/Large Effect Size.

Statistically significant differences ($p < .05$) were found between Clinician and Caregiver ratings on the following subscales in the pooled dataset: Choice of Involvement Activities: Client-Specific, Choice of Involvement Activities: Agency-General, Report of Encouragement Behaviors, Report of Reinforcement Behaviors, and Report of Instruction Behaviors (see Table 18). Statistically significant differences ($p < .05$) were also found between Report of Encouragement Behaviors, Report of Reinforcement Behaviors, and Report of Instruction Behaviors in the original dataset. However, the large degree of freedom values for these pooled data should be noted as a possible indicator that the statistically significant scores are due to these large degrees of freedom. These differences also had moderate effect sizes ($d > .50$) for all subscales other than Report of Instruction Behaviors and a high effect size ($d > .80$) for the Report of Instruction Behaviors based on Cohen's d values in the original dataset, indicating strong degree of practical significance for these subscale differences. Clinician ratings on these subscales indicated that clinicians in this sample rated caregiver responses on all Level 2 subscales higher than caregivers rated themselves.

Non-Significant p-Value and Moderate/Large Effect Size.

A statistically non-significant difference ($p > .05$) was found between Clinician and Caregiver ratings on the Report of Modeling Behaviors subscale in the pooled dataset (see Table 18). However, this difference had a moderate effect size ($d = .75$) based on the Cohen's d values

in the original dataset, indicating a moderate degree of practical significance for these subscale differences. Clinician ratings on this subscale indicated that clinicians in this sample rated caregiver responses on Report of Modeling Behaviors higher than caregivers rated themselves.

Table 18*Differences Between Clinician and Caregiver Level 2 Ratings*

Subscale	Original					Pooled									
	<i>F</i> (1,34)	<i>p</i> *	<i>t</i>	<i>df</i>	<i>p</i> **	95% CI		<i>d</i>	95% CI		<i>t</i>	<i>df</i>	<i>p</i> **	95% CI	
						<i>LL</i>	<i>UL</i>		<i>LL</i>	<i>UL</i>					
CIACS	1.26	.270	1.44	34	.160	-.11	.66	.57	-.19	1.14	2.65	835	.008	.09	.57
CIAAG	0.00	.984	1.43	34	.162	-.14	.79	.68	-.19	1.14	2.07	76810	.039	.02	.67
REB	.54	.470	3.69	34	<.001	.42	1.44	.75	.51	1.94	3.30	133437	<.001	.30	1.18
RMB	1.82	.186	1.69	34	.101	-.09	.94	.75	-.09	.90	1.60	3720133	.111	-.09	.90
RRB	.30	.586	2.16	34	.038	.03	.98	.70	.04	1.39	2.16		.031	.05	.97
RIB	2.09	.158	2.27	34	.030	.07	1.24	.87	.07	1.43	2.09	3046586	.036	.04	1.10

Note: Caregiver (*n* = 19) and Clinician (*n* = 17)

*p** = one-sided; *p*** = two-sided

CI= confidence interval; UL= upper limit; LL= lower limit

CIACS= Choice of Involvement Activities: Client-Specific; CIAAG= Choice of Involvement Activities: Agency-General; REB= Report of Encouragement Behaviors; RMB= Report of Modeling Behaviors; RRB= Report of Reinforcement Behaviors; RIB= Report of Instruction Behaviors

Range: 1-6

**p* < .05

Differences Between Clinician and Client Level 3 Values.

Independent t-tests between Clinician and Client ratings on Level 3 subscales identified both significant ($p < .05$) and non-significant ($p > .05$) differences between these ratings (see Table 19).

Significant p-Value and Low Effect Size.

A statistically significant difference ($p < .05$) was found between Clinician and Client ratings on the Report of Caregiver Use of Instruction Behaviors (see Table 19) in both the pooled and original datasets. However, this difference had a small effect size ($d = .29$) based on Cohen's d values in the original dataset, indicating low degree of practical significance for this subscale difference despite its statistical significance. Clinician ratings on this subscale indicate that clinicians in this sample rated client responses on Report of Caregiver Use of Instruction Behaviors higher than clients rated themselves.

Non-Significant p-Value and Low Effect Size.

Statistically non-significant differences ($p > .05$) were found between Clinician and Client ratings on the following subscales in the pooled and original datasets: Report of Caregiver Modeling Behaviors, Report of Caregiver Encouragement Behaviors, and Report of Caregiver Use of Reinforcement Behaviors (see Table 19). These differences also had a small effect size ($d < .50$) based on Cohen's d values in the original dataset, indicating a low degree of practical significance for these subscale differences. Clinician ratings on these subscales indicated that clinicians in this sample rated client responses on Report of Caregiver Modeling Behaviors lower than clients rated themselves and Report of Caregiver Encouragement Behaviors Report of Caregiver Use of Reinforcement Behaviors higher than clients rated themselves.

Table 19*Differences Between Clinician and Client Level 3 Ratings*

Subscale	Original								Pooled							
	<i>F</i> (1,18)	<i>p</i> *	<i>t</i>	<i>df</i>	<i>p</i> **	95% CI		<i>d</i>	95% CI		<i>t</i>	<i>df</i>	<i>p</i> **	95% CI		
						<i>LL</i>	<i>UL</i>		<i>LL</i>	<i>UL</i>				<i>LL</i>	<i>UL</i>	
RCMB	.07	.797	-.54	18	.594	-.71	.42	.43	-1.57	.90	-.54		.588	-.67	.38	
RCUIB	1.43	.247	2.25	18	.038	.03	.79	.29	.08	2.70	2.25		.025	.05	.77	
RCEB	.67	.424	.96	18	.350	-.31	.83	.44	-.65	1.84	.96		.337	-.27	.80	
RCURB	.30	.592	1.86	18	.079	-.07	1.10	.44	-.13	2.44	1.86		.062	-.03	1.06	

Note: Client ($n = 3$) and Clinician ($n = 17$)

p^* = one-sided; p^{**} = two-sided

CI= confidence interval; UL= upper limit; LL= lower limit

RCMB= Report of Caregiver Modeling Behaviors; RCUIB= Report of Caregiver Use of Instruction Behaviors; RCEB= Report of Caregiver Encouragement Behaviors; RCURB= Report of Caregiver Use of Reinforcement Behaviors

Range: 1-4

* $p < .05$

Differences Between Clinician and Client Level 4 Values.

Independent t-tests were conducted to explain differences between Clinician and Client ratings on Level 4 subscales (see Table 20). An alpha level of .05 was utilized. Descriptive statistics are in Table 4 (p. 78). Statistically non-significant differences ($p > .05$) were found between Clinician and Client ratings on both Level 4 subscales in the pooled and original datasets (see Table 20). However, these differences had moderate effect sizes ($d > .50$) based on Cohen's d values in the original dataset, indicating a moderate degree of practical significance for these subscale differences. Clinician ratings on these subscales indicated that clinicians in this sample rated client responses on Level 4 subscales higher than clients rated themselves.

Table 20*Differences Between Clinician and Client Level 4 Ratings*

Subscale	Original						Pooled								
	<i>F</i> (<i>1,18</i>)	<i>p</i> *	<i>t</i>	<i>df</i>	<i>p</i> **	95% CI		<i>d</i>	95% CI		<i>t</i>	<i>df</i>	<i>p</i> **	95% CI	
						<i>LL</i>	<i>UL</i>		<i>LL</i>	<i>UL</i>				<i>LL</i>	<i>UL</i>
SRAEB	2.44	.136	1.22	18	.240	-.31	1.14	.55	-.50	2.00	.99		.325	-.33	1.01
SRCR	2.31	.146	.43	18	.674	-.54	.81	.51	-.97	1.49	.43		.669	-.49	.77

Note: Client (*n* = 3) and Clinician (*n* = 17)*p** = one-sided; *p*** = two-sided

CI= confidence interval; UL= upper limit; LL= lower limit

SRAEB= Self-Report of Active Engagement Behaviors; SRCR= Self-Report of Clinician Relationship

Range: 1-4

**p* < .05

Research Question 3

How do caregiver Level 1 PIPQ reports of their motivational beliefs, perceptions of invitations for involvement, and perceived life context impact caregiver Level 2 PIPQ reports of their involvement behaviors?

Data Analysis

A forced entry linear regression was run to predict caregiver Level 2 subscale ratings on Choice of Involvement Activities: Client-Specific, Choice of Involvement Activities: Agency-General, Report of Encouragement Behaviors, Report of Modeling Behaviors, Report of Reinforcement Behaviors, and Report of Instruction Behaviors dependent on their Level 1 subscale ratings of Valence Towards Therapy, Self-Efficacy, Perceptions of General Invitations from the Agency, Perceptions of Specific Invitations from the Clinician, Role Activity Beliefs, Perceptions of Personal Knowledge and Skills, Perceptions of Personal Time and Energy, and Perceptions of Specific Invitations from the Client.

Choice of Involvement Activities: Client-Specific.

A forced entry linear regression was calculated to predict caregiver ratings on Caregiver Choice of Involvement Activities: Client-Specific based on their ratings on Level 1 subscales (see Table 21). A non-significant regression was found $F(8,10) = 2.60, p > .05$ with an R^2 of .68. Large effect sizes were noted for both R^2 ($f^2 = 2.13$) and R^2_{Adjusted} ($f^2 = .72$) with this regression model. Caregiver's predicted Choice of Involvement Activities: Client-Specific increased for all subscales, but none of these interactions were statistically significant ($p > .05$). Self-Efficacy appeared to have the greatest interaction for the original dataset [$(\beta_{\text{Original}} = .33), t_{\text{Original}} = 1.23, p > .05$] and Perceptions of Personal Knowledge and Skills had the greatest interaction for the

pooled dataset [$\beta_{\text{Pooled}} = .28$), $t_{\text{Pooled}} = 1.53$, $p > .05$]. However, all interactions were non-significant ($p > .05$).

Table 21

Caregiver Level 1 Subscales Effect on Caregiver Choice of Involvement Activities: Client-Specific

Subscale	Original					Pooled				
	β	95% CI		t	p	β	95% CI		t	p
		LL	UL				LL	UL		
Constant	-1.23	-3.94	1.47	-1.02	.333	-.11	-1.90	1.68	-.12	.904
VTT	.04	-.04	.11	1.06	.315	.03	-.03	.09	1.02	.311
SE	.33	-.26	.91	1.23	.246	.17	-.19	.53	.92	.361
PGIA	.18	-.14	.49	1.27	.235	.15	-.17	.47	.92	.358
PSIClin	.002	-.27	.27	.02	.984	.05	-.19	.29	.44	.660
RAB	.01	-.36	.38	.08	.939	-.01	-.35	.33	-.04	.969
PPKS	.12	-.38	.62	.55	.592	.28	-.08	.64	1.53	.126
PPTE	.06	-.46	.57	.25	.806	-.15	-.54	.24	-.75	.456
PSIClt	.12	-.14	.39	1.02	.331	.06	-.21	.32	.43	.674

Note: $n = 19$; $F(8,10) = 2.60$, $p > .05$; $R^2 = .68$, $R^2_{\text{Adjusted}} = .42$

CI= confidence interval; UL= upper limit; LL= lower limit

VTT= Valence Towards Therapy; SE= Self-Efficacy; PGIA= Perceptions of General Invitations from the Agency; PSIClin= Perceptions of Specific Invitations from the Clinician; RAB= Role Activity Beliefs; PPKS= Perceptions of Personal Knowledge and Skills; PPTE= Perceptions of Personal Time and Energy; PSIClt= Perceptions of Specific Invitations from the Client

Range: 1-6

* $p < .05$

Choice of Involvement Activities: Agency-General.

A forced entry linear regression was calculated to predict caregiver ratings on Caregiver Choice of Involvement Activities: Agency-General based on their ratings on Level 1 subscales (see Table 22). A significant regression was found $F(8,10) = 3.64, p < .05$ with an R^2 of .74. Large effect sizes were noted for both $R^2 (f^2 = 2.85)$ and $R^2_{\text{Adjusted}} (f^2 = 1.17)$ with this regression model. Caregiver's predicted Choice of Involvement Activities: Agency-General increased for all subscales, except for Perceptions of Personal Time and Energy. However, none of these interactions were statistically significant ($p > .05$). Self-Efficacy appeared to have the greatest interaction for the original dataset [$(\beta_{\text{Original}} = .49), t_{\text{Original}} = 1.38, p > .05$] and Perceptions of General Invitations from the Agency had the greatest interaction for the pooled dataset [$(\beta_{\text{Pooled}} = .38), t_{\text{Pooled}} = 1.48, p > .05$]. Perceptions of Personal Time and Energy had a negative interaction for both the original dataset [$(\beta_{\text{Original}} = -.11), t_{\text{Original}} = .35, p > .05$] and the pooled dataset [$(\beta_{\text{Pooled}} = -.25), t_{\text{Pooled}} = -.77, p > .05$]. However, all interactions were non-significant ($p > .05$).

Table 22

Caregiver Level 1 Subscales Effect on Caregiver Choice of Involvement Activities: Agency-General

Subscale	Original					Pooled				
	β	95% CI		<i>t</i>	<i>p</i>	β	95% CI		<i>t</i>	<i>p</i>
		<i>LL</i>	<i>UL</i>				<i>LL</i>	<i>UL</i>		
Constant	-3.32	-6.94	.29	-2.05	.068	-1.20	-4.06	1.66	-.82	.412
VTT	.05	-.05	.16	1.16	.274	.03	-.06	.13	.68	.495
SE	.49	-.30	1.27	1.38	.199	.12	-.45	.69	.40	.686
PGIA	.15	-.27	.56	.78	.454	.38	-.13	.90	1.48	.140
PSIClin	.20	-.16	.56	1.26	.238	.17	-.17	.52	.99	.322
RAB	.25	-.24	.74	1.13	.285	.01	-.52	.55	.04	.968
PPKS	.21	-.46	.88	.71	.493	.29	-.28	.86	.99	.322
PPTE	-.11	-.80	.58	.35	.735	-.25	-.87	.38	-.77	.440
PSIClt	.12	-.23	.48	.78	.456	.04	-.29	.37	.24	.815

Note: $n = 19$; $F(8,10) = 3.64$, $p < .05$; $R^2 = .74$, $R^2_{\text{Adjusted}} = .54$

CI= confidence interval; UL= upper limit; LL= lower limit

VTT= Valence Towards Therapy; SE= Self-Efficacy; PGIA= Perceptions of General Invitations from the Agency; PSIClin= Perceptions of Specific Invitations from the Clinician; RAB= Role Activity Beliefs; PPKS= Perceptions of Personal Knowledge and Skills; PPTE= Perceptions of Personal Time and Energy; PSIClt= Perceptions of Specific Invitations from the Client

CI= confidence interval; UL= upper limit; LL= lower limit

Range: 1-6

* $p < .05$

Report of Encouragement Behaviors.

A forced entry linear regression was calculated to predict caregiver ratings on Report of Encouragement Behaviors based on their ratings on Level 1 subscales (see Table 23). A non-significant regression was found $F(8,10) = 2.48$, $p > .05$ with an R^2 of .67. Large effect sizes

were noted for both R^2 ($f^2 = 2.03$) and R^2_{Adjusted} ($f^2 = .67$) with this regression model. Caregiver's predicted Report of Encouragement Behaviors increased for all subscales, except for Valence Towards Therapy for the original dataset and interactions were negative for the Valence Towards Therapy, Role Activity Beliefs, Perceptions of Personal Knowledge and Skills, and Perceptions of Specific Invitations from the Client. However, none of these interactions were statistically significant ($p > .05$). Perception of General Invitations from the Agency appeared to have the greatest interaction for the original dataset [$\beta_{\text{Original}} = .48$], $t_{\text{Original}} = 1.75$, $p > .05$] and Perceptions of Personal Time and Energy had the greatest interaction for the pooled dataset [$\beta_{\text{Pooled}} = .66$], $t_{\text{Pooled}} = 1.83$, $p > .05$]. However, all interactions were non-significant ($p > .05$) with the interaction between Self-Efficacy and Report of Encouragement Behaviors approaching significance ($p = .051$).

Table 23*Caregiver Level 1 Subscales Effect on Caregiver Report of Encouragement Behaviors*

Subscale	Original					Pooled				
	β	95% CI		t	p	β	95% CI		t	p
		<i>LL</i>	<i>UL</i>				<i>LL</i>	<i>UL</i>		
Constant	-1.78	-7.07	3.51	-.75	.471	-2.48	-5.69	.73	-1.52	.130
VTT	-.003	-.15	.15	-.04	.970	-.02	-.12	.09	-.33	.744
SE	.33	-.82	1.48	.65	.533	.63	-.004	1.27	1.95	.051
PGIA	.48	-.13	1.09	1.75	.111	.46	-.13	1.06	1.55	.123
PSIClin	.14	-.39	.67	.59	.569	.07	-.32	.46	.36	.722
RAB	.11	-.62	.83	.32	.752	-.06	-.69	.57	-.19	.851
PPKS	.19	-.79	1.16	.43	.680	-.06	-.71	.59	-.18	.857
PPTE	.02	-.99	1.02	.04	.972	.66	-.05	1.36	1.83	.067
PSIClt	.18	-.34	.70	.78	.452	-.01	-.40	.39	-.02	.982

Note: $n = 19$; $F(8,10) = 2.48$, $p > .05$; $R^2 = .67$, $R^2_{\text{Adjusted}} = .40$

CI= confidence interval; UL= upper limit; LL= lower limit

VTT= Valence Towards Therapy; SE= Self-Efficacy; PGIA= Perceptions of General Invitations from the Agency; PSIClin= Perceptions of Specific Invitations from the Clinician; RAB= Role Activity Beliefs; PPKS= Perceptions of Personal Knowledge and Skills; PPTE= Perceptions of Personal Time and Energy; PSIClt= Perceptions of Specific Invitations from the Client

Range: 1-6

* $p < .05$

Report of Modeling Behaviors.

A forced entry linear regression was calculated to predict caregiver ratings on Report of Modeling Behaviors based on their ratings on Level 1 subscales (see Table 24). A non-significant regression was found $F(8,10) = 2.51$, $p > .05$ with an R^2 of .67. Large effect sizes were noted for both R^2 ($f^2 = 2.03$) and R^2_{Adjusted} ($f^2 = .67$) with this regression model. Caregiver's predicted

Report of Modeling Behaviors increased for all subscales in the original dataset except for Self-Efficacy ($\beta = -.05$), Perceptions of Personal Time and Energy ($\beta = -.44$) and Perceptions of Specific Invitations from the Client ($\beta = -.12$). Role Activity Beliefs ($\beta = .58$) was the only statistically significant interaction for the original dataset ($p < .05$). Perceptions of Personal Time and Energy ($\beta = -.48$) was the only negative interaction in the pooled dataset and none of the pooled dataset interactions were statistically significant ($p < .05$). Role Activity Beliefs appeared to have the greatest interaction for the original dataset [$(\beta_{\text{Original}}=.58), t_{\text{Original}}= 2.27, p < .05$] and Perceptions of Personal Time and Energy had the greatest interaction for the pooled dataset [$(\beta_{\text{Pooled}} = -.48), t_{\text{Pooled}} = -1.06, p > .05$].

Table 24

Caregiver Level 1 Subscales Effect on Caregiver Report of Modeling Behaviors

Subscale	Original					Pooled				
	β	95% CI		t	p	β	95% CI		t	p
		<i>LL</i>	<i>UL</i>				<i>LL</i>	<i>UL</i>		
Constant	.96	-3.23	5.15	.51	.621	.71	-3.29	4.70	.35	.729
VTT	.03	-.09	.15	.51	.624	.04	-.09	.18	.66	.510
SE	-.05	-.96	.86	-.13	.901	.10	-.69	.90	.26	.797
PGIA	.28	-.21	.76	1.27	.233	.34	-.38	1.06	.93	.354
PSIClin	.30	-.12	.72	1.61	.138	.10	-.37	.56	.41	.682
RAB	.58	.01	1.15	2.27	.047	.29	-.47	1.05	.74	.457
PPKS	.21	-.56	.99	.61	.554	.41	-.41	1.23	.98	.326
PPTE	-.44	-1.23	.36	-1.22	.251	-.48	-1.38	.41	-1.06	.290
PSIClt	-.12	-.53	.29	-.65	.529	.10	-.36	.55	.43	.669

Note: $n = 19$; $F(8,10) = 2.51, p > .05$; $R^2 = .67, R^2_{\text{Adjusted}} = .40$

CI= confidence interval; UL= upper limit; LL= lower limit
VTT= Valence Towards Therapy; SE= Self-Efficacy; PGIA= Perceptions of General Invitations from the Agency; PSIClin= Perceptions of Specific Invitations from the Clinician; RAB= Role Activity Beliefs; PPKS= Perceptions of Personal Knowledge and Skills; PPTE= Perceptions of Personal Time and Energy; PSIClt= Perceptions of Specific Invitations from the Client
Range: 1-6
* $p < .05$

Report of Reinforcement Behaviors.

A forced entry linear regression was calculated to predict caregiver ratings on Report of Reinforcement Behaviors based on their ratings on Level 1 subscales (see Table 25). A significant regression was found $F(8,10) = 5.00, p < .05$ with an R^2 of .80. Large effect sizes were noted for both R^2 ($f^2 = 4.00$) and R^2_{Adjusted} ($f^2 = 1.78$) with this regression model. Caregiver's predicted Report of Reinforcement Behaviors increased in both datasets for Self-Efficacy ($\beta_{\text{Original}} = .73; \beta_{\text{Pooled}} = .68$), Perceptions of General Invitations from the Agency ($\beta_{\text{Original}} = .06; \beta_{\text{Pooled}} = .17$), Perceptions of Personal Knowledge and Skills ($\beta_{\text{Original}} = .94; \beta_{\text{Pooled}} = .83$), and Perceptions of Specific Invitations from the Client ($\beta_{\text{Original}} = .21; \beta_{\text{Pooled}} = .22$). Self-Efficacy was significant ($p < .05$) for the pooled dataset and Perceptions of Personal Knowledge and Skills was significant ($p < .05$) for both datasets. Perceptions of Personal Knowledge and Skills appeared to have the greatest interaction for the original dataset [$(\beta_{\text{Original}} = .94), t_{\text{Original}} = 3.04, p < .05$] and for the pooled dataset [$(\beta_{\text{Pooled}} = .83), t_{\text{Pooled}} = 2.53, p < .05$].

Table 25*Caregiver Level 1 Subscales Effect on Caregiver Report of Reinforcement Behaviors*

Subscale	Original					Pooled				
	β	95% CI		t	p	β	95% CI		t	p
		LL	UL				LL	UL		
Constant	-1.67	-5.40	2.06	-1.00	.341	-1.70	-4.83	1.44	-1.06	.289
VTT	-.02	-.13	.09	-.39	.709	-.04	-.14	.06	-.74	.457
SE	.73	-.08	1.54	2.00	.074	.68	.06	1.30	2.14	.032
PGIA	.06	-.37	.49	.33	.752	.17	-.39	.73	.59	.559
PSIClin	-.04	-.41	.33	-.24	.818	-.04	-.40	.32	-.23	.820
RAB	-.01	-.52	.50	-.05	.961	-.03	-.63	.57	-.10	.921
PPKS	.94	.25	1.63	3.04	.013	.83	.19	1.47	2.53	.011
PPTE	-.27	-.98	.44	-.84	.418	-.21	-.91	.49	-.58	.564
PSIClt	.21	-.16	.57	1.27	.233	.22	-.14	.57	1.20	.230

Note: $n = 19$; $F(8,10) = 5.00$, $p < .05$; $R^2 = .80$, $R^2_{\text{Adjusted}} = .64$

CI= confidence interval; UL= upper limit; LL= lower limit

VTT= Valence Towards Therapy; SE= Self-Efficacy; PGIA= Perceptions of General Invitations from the Agency; PSIClin= Perceptions of Specific Invitations from the Clinician; RAB= Role Activity Beliefs; PPKS= Perceptions of Personal Knowledge and Skills; PPTE= Perceptions of Personal Time and Energy; PSIClt= Perceptions of Specific Invitations from the Client

Range: 1-6

* $p < .05$

Report of Instruction Behaviors.

A forced entry linear regression was calculated to predict caregiver ratings on Report of Instruction Behaviors based on their ratings on Level 1 subscales (see Table 26). A non-significant regression was found $F(8,10) = 1.69$, $p > .05$ with an R^2 of .18. A moderate effect size was noted for R^2 ($f^2 = .22$) and a small effect size was noted R^2_{Adjusted} ($f^2 = .149$) with this

regression model. Caregiver’s predicted Report of Instruction Behaviors increased for all subscales in the original dataset except for Valence Towards Therapy, Perceptions of Specific Invitations from the Clinician, and Role Activity Beliefs. Caregiver’s predicted Report of Instruction Behaviors increased for all subscales in the pooled dataset except for Valence Towards Therapy, and Perceptions of Specific Invitations from the Clinician. None of these interactions were statistically significant ($p > .05$). Self-Efficacy appeared to have the greatest interaction for the original dataset [$(\beta_{\text{Original}} = 1.11)$, $t_{\text{Original}} = 1.60$, $p > .05$] and the pooled dataset [$(\beta_{\text{Pooled}} = .95)$, $t_{\text{Pooled}} = 1.85$, $p > .05$]. However, all interactions were non-significant ($p > .05$).

Table 26

Caregiver Level 1 Subscales Effect on Caregiver Report of Instruction Behaviors

Subscale	Original					Pooled				
	β	95% CI		t	p	β	95% CI		t	p
		LL	UL				LL	UL		
Constant	-3.61	-10.71	3.50	-1.13	.284	-3.45	-8.54	1.64	-1.33	.184
VTT	-.10	-.30	.10	-1.11	.292	-.07	-.24	.10	-.81	.417
SE	1.11	-.44	2.65	1.60	.142	.95	-.06	1.96	1.85	.064
PGIA	.31	-.51	1.12	.83	.426	.11	-.80	1.02	.24	.813
PSIClin	-.15	-.86	.56	-.48	.645	-.13	-.72	.46	-.43	.665
RAB	-.02	-.99	.95	-.04	.967	.27	-.70	1.23	.54	.592
PPKS	.33	-.99	1.64	.55	.592	.10	-.96	1.17	.19	.853
PPTE	.09	-1.27	1.44	.15	.887	.34	-.83	1.50	.57	.570
PSIClt	.50	-.19	1.20	1.61	.139	.42	-.16	.99	1.43	.154

Note: $n = 19$; $F(8,10) = 1.69$, $p > .05$; $R^2 = .18$, $R^2_{\text{Adjusted}} = .13$
 CI= confidence interval; UL= upper limit; LL= lower limit

VTT= Valence Towards Therapy; SE= Self-Efficacy; PGIA= Perceptions of General Invitations from the Agency; PSIClin= Perceptions of Specific Invitations from the Clinician; RAB= Role Activity Beliefs; PPKS= Perceptions of Personal Knowledge and Skills; PPTE= Perceptions of Personal Time and Energy; PSIClt= Perceptions of Specific Invitations from the Client

Range: 1-6

* $p < .05$

Data Analysis

Simple linear regressions were also run for each caregiver Level 1 subscales interaction with caregiver Level 2 subscales due to poor overall model fit of the forced entry linear regressions with all Level 1 subscales included in the model (See Appendix I, pp. 174- 189).

Significant ($p < .05$) Interaction and High/Moderate Effect Size ($f^2 > .35/f^2 > .15$).

Significant ($p < .05$) interactions between Caregiver Level 1 subscales on Caregiver Level 2 subscales were found for all Level 1 subscales except for the Self-Efficacy subscale.

Valence Towards Therapy.

Scores on Valence Towards Therapy significantly predicted Choice of Involvement Behaviors: Client-Specific scores in the pooled dataset, [$(\beta_{\text{Original}} = .07)$, $t_{\text{Original}} = 1.95$, $p > .05$; $(\beta_{\text{Pooled}} = .07)$, $t_{\text{Pooled}} = 2.20$, $p < .05$]. Valence Towards Therapy also explained a significant proportion of variance in Choice of Involvement Behaviors: Client-Specific scores, $R^2 = .18$, $F(1, 17) = 3.79$, $p > .05$. Scores on Valence Towards Therapy also significantly predicted Choice of Involvement Behaviors: Agency-General scores in the pooled dataset, [$(\beta_{\text{Original}} = .11)$, $t_{\text{Original}} = 1.88$, $p > .05$; $(\beta_{\text{Pooled}} = .09)$, $t_{\text{Pooled}} = 1.98$, $p < .05$] and explained a significant proportion of variance in Choice of Involvement Behaviors: Agency-General scores, $R^2 = .17$, $F(1, 17) = 3.54$, $p > .05$.

Perceptions of General Invitations from the Agency.

Scores on Perceptions of General Invitations from the Agency significantly predicted Choice of Involvement Behaviors: Client-Specific scores in the pooled and original

datasets, [$(\beta_{\text{Original}} = .30)$, $t_{\text{Original}} = 2.79$, $p < .05$; $(\beta_{\text{Pooled}} = .28)$, $t_{\text{Pooled}} = 2.99$, $p < .05$]. Perceptions of General Invitations from the Agency also explained a significant proportion of variance in Choice of Involvement Behaviors: Client-Specific scores, $R^2 = .31$, $F(1, 17) = 7.79$, $p < .05$. Scores on Perceptions of General Invitations from the Agency significantly predicted Choice of Involvement Behaviors: Agency-General scores in the pooled dataset, [$(\beta_{\text{Original}} = .34)$, $t_{\text{Original}} = 1.91$, $p > .05$; $(\beta_{\text{Pooled}} = .52)$, $t_{\text{Pooled}} = 3.89$, $p < .05$]. Perceptions of General Invitations from the Agency also explained a significant proportion of variance in Choice of Involvement Behaviors: Agency-General scores, $R^2 = .18$, $F(1, 17) = 3.63$, $p > .05$. Scores on Perception of General Invitations from the Agency significantly predicted Report of Encouragement scores in the pooled and original datasets, [$(\beta_{\text{Original}} = .66)$, $t_{\text{Original}} = 3.49$, $p < .05$; $(\beta_{\text{Pooled}} = .71)$, $t_{\text{Pooled}} = 3.92$, $p < .05$]. Perceptions of General Invitations from the Agency also explained a significant proportion of variance in Report of Encouragement scores, $R^2 = .42$, $F(1, 17) = 12.15$, $p < .05$. Scores on Perceptions of General Invitations from the Agency significantly predicted Report of Modeling scores in the pooled and original datasets, [$(\beta_{\text{Original}} = .43)$, $t_{\text{Original}} = 2.59$, $p < .05$; $(\beta_{\text{Pooled}} = .55)$, $t_{\text{Pooled}} = 3.08$, $p < .05$]. Perceptions of General Invitations from the Agency also explained a significant proportion of variance in Report of Modeling scores, $R^2 = .28$, $F(1, 17) = 6.72$, $p < .05$.

Perceptions of Specific Invitations from the Clinician.

Scores on Perceptions of Specific Invitations from the Clinician significantly predicted Choice of Involvement Behaviors: Agency-General scores in the pooled and original datasets, [$(\beta_{\text{Original}} = .34)$, $t_{\text{Original}} = 2.62$, $p < .05$; $(\beta_{\text{Pooled}} = .34)$, $t_{\text{Pooled}} = 2.86$, $p < .05$]. Perceptions of Specific Invitations from the Clinician also explained a significant proportion of variance in Choice of Involvement Behaviors: Agency-General scores, $R^2 = .29$, $F(1, 17) = 6.85$, $p < .05$.

Scores on Perceptions of Specific Invitations from the Clinician also significantly predicted Report of Modeling scores in the pooled and original datasets, [$(\beta_{\text{Original}} = .30)$, $t_{\text{Original}} = 2.11$, $p = .05$; $(\beta_{\text{Pooled}} = .33)$, $t_{\text{Pooled}} = 2.12$, $p < .05$]. Perceptions of Specific Invitations from the Clinician also explained a significant proportion of variance in Report of Modeling scores, $R^2 = .21$, $F(1, 17) = 4.44$, $p = .05$.

Role Activity Beliefs.

Scores on Role Activity Beliefs significantly predicted Choice of Involvement Behaviors: Client-Specific scores in the pooled and original datasets, [$(\beta_{\text{Original}} = .34)$, $t_{\text{Original}} = 3.18$, $p < .05$; $(\beta_{\text{Pooled}} = .27)$, $t_{\text{Pooled}} = 2.33$, $p < .05$]. Role Activity Beliefs also explained a significant proportion of variance in Choice of Involvement Behaviors: Client-Specific scores, $R^2 = .37$, $F(1, 17) = 10.08$, $p < .05$. Scores on Role Activity Beliefs significantly predicted Choice of Involvement Behaviors: Agency-General scores in the pooled and original datasets, [$(\beta_{\text{Original}} = .57)$, $t_{\text{Original}} = 3.89$, $p < .05$; $(\beta_{\text{Pooled}} = .43)$, $t_{\text{Pooled}} = 2.32$, $p < .05$]. Role Activity Beliefs also explained a significant proportion of variance in Choice of Involvement Behaviors: Agency-General scores, $R^2 = .47$, $F(1, 17) = 15.13$, $p < .05$. Scores on Role Activity Beliefs significantly predicted Report of Encouragement scores in the pooled and original datasets, [$(\beta_{\text{Original}} = .63)$, $t_{\text{Original}} = 3.00$, $p < .05$; $(\beta_{\text{Pooled}} = .75)$, $t_{\text{Pooled}} = 3.30$, $p < .05$]. Role Activity Beliefs also explained a significant proportion of variance in Report of Encouragement scores, $R^2 = .35$, $F(1, 17) = 9.01$, $p < .05$. Scores on Role Activity Beliefs significantly predicted Report of Modeling scores in the pooled and original datasets, [$(\beta_{\text{Original}} = .54)$, $t_{\text{Original}} = 3.42$, $p < .05$; $(\beta_{\text{Pooled}} = .60)$, $t_{\text{Pooled}} = 2.79$, $p < .05$]. Role Activity Beliefs also explained a significant proportion of variance in Report of Modeling scores, $R^2 = .41$, $F(1, 17) = 11.66$, $p < .05$. Scores on Role Activity Beliefs significantly predicted Report of Reinforcement scores in the pooled and original

datasets, [$(\beta_{\text{Original}} = .60)$, $t_{\text{Original}} = 3.22$, $p < .05$; $(\beta_{\text{Pooled}} = .70)$, $t_{\text{Pooled}} = 2.95$, $p < .05$]. Role Activity Beliefs also explained a significant proportion of variance in Report of Reinforcement scores, $R^2 = .38$, $F(1, 17) = 10.38$, $p < .05$. Scores on Role Activity Beliefs significantly predicted Report of Instruction scores in the pooled and original datasets, [$(\beta_{\text{Original}} = .70)$, $t_{\text{Original}} = 2.72$, $p < .05$; $(\beta_{\text{Pooled}} = .82)$, $t_{\text{Pooled}} = 2.87$, $p < .05$]. Role Activity Beliefs also explained a significant proportion of variance in Report of Instruction scores, $R^2 = .30$, $F(1, 17) = 7.39$, $p < .05$.

Perceptions of Personal Knowledge and Skills.

Scores on Perceptions of Personal Knowledge and Skills significantly predicted Choice of Involvement Behaviors: Client-Specific scores in the pooled and original datasets, [$(\beta_{\text{Original}} = .30)$, $t_{\text{Original}} = 3.39$, $p < .05$; $(\beta_{\text{Pooled}} = .30)$, $t_{\text{Pooled}} = 3.97$, $p < .05$]. Perceptions of Personal Knowledge and Skills also explained a significant proportion of variance in Choice of Involvement Behaviors: Client-Specific scores, $R^2 = .40$, $F(1, 17) = 11.50$, $p < .05$. Scores on Perceptions of Personal Knowledge and Skills significantly predicted Choice of Involvement Behaviors: Agency-General scores in the pooled and original datasets, [$(\beta_{\text{Original}} = .42)$, $t_{\text{Original}} = 3.07$, $p < .05$; $(\beta_{\text{Pooled}} = .35)$, $t_{\text{Pooled}} = 3.04$, $p < .05$]. Perceptions of Personal Knowledge and Skills also explained a significant proportion of variance in Choice of Involvement Behaviors: Agency-General scores, $R^2 = .36$, $F(1, 17) = 9.40$, $p < .05$. Scores on Perceptions of Personal Knowledge and Skills significantly predicted Report of Encouragement scores in the pooled and original datasets, [$(\beta_{\text{Original}} = .58)$, $t_{\text{Original}} = 3.52$, $p < .05$; $(\beta_{\text{Pooled}} = .58)$, $t_{\text{Pooled}} = 4.20$, $p < .05$]. Perceptions of Personal Knowledge and Skills also explained a significant proportion of variance in Report of Encouragement scores, $R^2 = .42$, $F(1, 17) = 12.37$, $p < .05$. Scores on Perceptions of Personal Knowledge and Skills significantly predicted Report of Modeling scores in the pooled and

original datasets, [$\beta_{\text{Original}} = .36$), $t_{\text{Original}} = 2.42$, $p < .05$; ($\beta_{\text{Pooled}} = .38$), $t_{\text{Pooled}} = 2.49$, $p < .05$].

Perceptions of Personal Knowledge and Skills also explained a significant proportion of variance in Report of Modeling scores, $R^2 = .26$, $F(1, 17) = 5.83$, $p < .05$. Scores on Perceptions of Personal Knowledge and Skills significantly predicted Report of Reinforcement scores in the pooled and original datasets, [$\beta_{\text{Original}} = .66$), $t_{\text{Original}} = 5.49$, $p < .05$; ($\beta_{\text{Pooled}} = .66$), $t_{\text{Pooled}} = 5.49$, $p < .05$]. Perceptions of Personal Knowledge and Skills also explained a significant proportion of variance in Report of Reinforcement scores, $R^2 = .64$, $F(1, 17) = 30.17$, $p < .05$. Scores on Perceptions of Personal Knowledge and Skills significantly predicted Report of Instruction scores in the pooled dataset, [$\beta_{\text{Original}} = .43$), $t_{\text{Original}} = 1.80$, $p > .05$; ($\beta_{\text{Pooled}} = .47$), $t_{\text{Pooled}} = 2.31$, $p < .05$]. Perceptions of Personal Knowledge and Skills also explained a significant proportion of variance in Report of Instruction scores, $R^2 = .16$, $F(1, 17) = 3.25$, $p > .05$.

Perceptions of Personal Time and Energy.

Scores on Perceptions of Personal Time and Energy significantly predicted Choice of Involvement Behaviors: Client-Specific scores in the pooled and original datasets, [$\beta_{\text{Original}} = .33$), $t_{\text{Original}} = 3.95$, $p < .05$; ($\beta_{\text{Pooled}} = .25$), $t_{\text{Pooled}} = 3.16$, $p < .05$]. Perceptions of Personal Time and Energy also explained a significant proportion of variance in Choice of Involvement Behaviors: Client-Specific scores, $R^2 = .48$, $F(1, 17) = 15.63$, $p < .05$. Scores on Perceptions of Personal Time and Energy significantly predicted Choice of Involvement Behaviors: Agency-General scores in the pooled and original datasets, [$\beta_{\text{Original}} = .46$), $t_{\text{Original}} = 3.37$, $p < .05$; ($\beta_{\text{Pooled}} = .33$), $t_{\text{Pooled}} = 2.51$, $p < .05$]. Perceptions of Personal Time and Energy also explained a significant proportion of variance in Choice of Involvement Behaviors: Agency-General scores, $R^2 = .40$, $F(1, 17) = 11.38$, $p < .05$. Scores on Perceptions of Personal Time and Energy significantly predicted Report of Encouragement scores in the pooled dataset, [$\beta_{\text{Original}} = .61$),

$t_{\text{Original}} = 3.62, p < .05$; ($\beta_{\text{Pooled}} = .70$), $t_{\text{Pooled}} = 5.29, p < .05$]. Perceptions of Personal Time and Energy also explained a significant proportion of variance in DV scores, $R^2 = .44, F(1, 17) = 13.09, p < .05$. Scores on Perceptions of Personal Time and Energy significantly predicted Report of Reinforcement scores in the pooled and original datasets, [$(\beta_{\text{Original}} = .61), t_{\text{Original}} = 4.35, p < .05$; ($\beta_{\text{Pooled}} = .62$), $t_{\text{Pooled}} = 4.04, p < .05$]. Perceptions of Personal Time and Energy also explained a significant proportion of variance in Report of Reinforcement scores, $R^2 = .53, F(1, 17) = 18.91, p < .05$. Scores on Perceptions of Personal Time and Energy significantly predicted Report of Instruction scores in the pooled dataset, [$(\beta_{\text{Original}} = .49), t_{\text{Original}} = 2.07, p > .05$; ($\beta_{\text{Pooled}} = .52$), $t_{\text{Pooled}} = 2.35, p < .05$]. Perceptions of Personal Time and Energy also explained a significant proportion of variance in Report of Instruction scores, $R^2 = .20, F(1, 17) = 4.29, p > .05$.

Perceptions of Specific Invitations from the Client.

Scores on Perceptions of Specific Invitations from the Client significantly predicted Choice of Involvement Behaviors: Client-Specific scores in the pooled and original datasets, [$(\beta_{\text{Original}} = .20), t_{\text{Original}} = 2.30, p < .05$; ($\beta_{\text{Pooled}} = .17$), $t_{\text{Pooled}} = 2.13, p < .05$]. Perceptions of Specific Invitations from the Client also explained a significant proportion of variance in Choice of Involvement Behaviors: Client-Specific scores, $R^2 = .24, F(1, 17) = 5.27, p < .05$. Scores on Perceptions of Specific Invitations from the Client significantly predicted Choice of Involvement Behaviors: Agency-General scores in the pooled dataset, [$(\beta_{\text{Original}} = .37), t_{\text{Original}} = 2.97, p < .05$; ($\beta_{\text{Pooled}} = .24$), $t_{\text{Pooled}} = 2.02, p < .05$]. Perceptions of Specific Invitations from the Client also explained a significant proportion of variance in Choice of Involvement Behaviors: Agency-General scores, $R^2 = .34, F(1, 17) = 8.84, p < .05$. Scores on Perceptions of Specific Invitations from the Client significantly predicted Report of Reinforcement scores in the pooled

and original datasets, [$(\beta_{\text{Original}} = .36)$, $t_{\text{Original}} = 2.31$, $p < .05$; $(\beta_{\text{Pooled}} = .38)$, $t_{\text{Pooled}} = 2.43$, $p < .05$].

Perceptions of Specific Invitations from the Client also explained a significant proportion of variance in Report of Reinforcement scores, $R^2 = .24$, $F(1, 17) = 5.35$, $p < .05$. Scores on Perceptions of Specific Invitations from the Client significantly predicted Report of Instruction scores in the pooled and original datasets, [$(\beta_{\text{Original}} = .45)$, $t_{\text{Original}} = 2.18$, $p < .05$; $(\beta_{\text{Pooled}} = .40)$, $t_{\text{Pooled}} = 2.05$, $p < .05$]. Perceptions of Specific Invitations from the Client also explained a significant proportion of variance in Report of Instruction scores, $R^2 = .22$, $F(1, 17) = 4.76$, $p < .05$.

Significant ($p < .05$) Interaction and Low Effect Size ($f^2 < .15$).

Scores on Perceptions of Specific Invitations from the Clinician significantly predicted Choice of Involvement Behaviors: Client-Specific scores in the pooled dataset, [$(\beta_{\text{Original}} = .15)$, $t_{\text{Original}} = 1.55$, $p > .05$; $(\beta_{\text{Pooled}} = .19)$, $t_{\text{Pooled}} = 2.36$, $p < .05$]. Perceptions of Specific Invitations from the Clinician also explained a small proportion of variance in Choice of Involvement Behaviors: Client-Specific scores, $R^2 = .12$, $F(1, 17) = 2.39$, $p > .05$.

Non-Significant ($p > .05$) Interaction and High/Moderate Effect Size ($f^2 > .35$ / $f^2 > .15$).

Multiple Level 1 subscale scores had a non-significant ($p > .05$) interaction on Level 2 subscale scores but demonstrated practical significance through a high ($f^2 > .35$) or moderate ($f^2 > .15$) effect size. These data could indicate interactions that would have both statistical significance ($p < .05$) as well as practical significance ($f^2 > .15$) with a larger sample size.

Perceptions of General Invitations from the Agency.

Interactions between scores on Perceptions of General Invitations from the Agency and Report of Reinforcement scores were statistically insignificant in the pooled and original

datasets, [$(\beta_{\text{Original}} = .38)$, $t_{\text{Original}} = 1.82$, $p > .05$; $(\beta_{\text{Pooled}} = .43)$, $t_{\text{Pooled}} = 1.89$, $p > .05$]. However, there was a moderate ($f^2 > .15$) effect size for this interaction $R^2 = .16$, $F(1, 17) = 3.31$, $p > .05$.

Perceptions of Specific Invitations from the Clinician.

Interactions between scores on Perceptions of Specific Invitations from the Clinician and Report of Encouragement were statistically insignificant in the pooled and original datasets, [$(\beta_{\text{Original}} = .36)$, $t_{\text{Original}} = 2.02$, $p > .05$; $(\beta_{\text{Pooled}} = .20)$, $t_{\text{Pooled}} = 1.05$, $p > .05$]. However, there was a moderate ($f^2 > .15$) effect size for this interaction $R^2 = .19$, $F(1, 17) = 4.09$, $p > .05$.

Perceptions of Personal Time and Energy.

Interactions between scores on Perceptions of Personal Time and Report of Modeling were statistically insignificant in the pooled dataset and significant in the original dataset, [$(\beta_{\text{Original}} = .34)$, $t_{\text{Original}} = 2.13$, $p < .05$; $(\beta_{\text{Pooled}} = .33)$, $t_{\text{Pooled}} = 1.94$, $p > .05$]. However, there was a moderate ($f^2 > .15$) effect size for this interaction $R^2 = .21$, $F(1, 17) = 4.53$, $p < .05$.

Perceptions of Specific Invitations from the Client.

Interactions between scores on Perceptions of Specific Invitations from the Client and Report of Encouragement were statistically insignificant in the pooled dataset and significant for the original dataset, [$(\beta_{\text{Original}} = .45)$, $t_{\text{Original}} = 2.74$, $p < .05$; $(\beta_{\text{Pooled}} = .19)$, $t_{\text{Pooled}} = 1.11$, $p > .05$]. However, there was a large ($f^2 > .35$) effect size for this interaction $R^2 = .31$, $F(1, 17) = 7.49$, $p < .05$. Interactions between scores on Perceptions of Specific Invitations from the Client and Report of Modeling were statistically insignificant in the pooled and original datasets, [$(\beta_{\text{Original}} = .27)$, $t_{\text{Original}} = 1.87$, $p > .05$; $(\beta_{\text{Pooled}} = .28)$, $t_{\text{Pooled}} = 1.88$, $p > .05$]. However, there was a moderate ($f^2 > .15$) effect size for this interaction $R^2 = .17$, $F(1, 17) = 3.49$, $p > .05$.

Research Question 4

How do caregiver Level 1 PIPQ reports of their motivational beliefs, perceptions of invitations for involvement, and perceived life context impact client Level 3 PIPQ reports of their perception of caregiver involvement behaviors?

Data Analysis

Simple linear regressions were run to predict client Level 3 subscale ratings on Report of Caregiver Modeling Behaviors, Report of Caregiver Use of Instruction Behaviors, Report of Caregiver Encouragement Behaviors and, Report of Caregiver Use of Reinforcement Behaviors dependent on caregiver Level 1 subscale ratings of Valence Towards Therapy, Self-Efficacy, Perceptions of General Invitations from the Agency, Perceptions of Specific Invitations from the Clinician, Role Activity Beliefs, Perceptions of Personal Knowledge and Skills, Perceptions of Personal Time and Energy, and Perceptions of Specific Invitations from the Client. Simple linear regressions were used due to poor overall model fit of the forced entry linear regressions with all Level 1 subscales included in the model (See Appendix I, pp. 190-197).

Significant ($p < .05$) Interaction and High/Moderate Effect Size ($f^2 > .35/f^2 > .15$).

Significant ($p < .05$) interactions between Caregiver Level 1 subscales on Client Level 3 subscales were found.

Valence Towards Therapy.

Scores on Valence Towards Therapy significantly predicted Report of Caregiver Encouragement Behaviors scores in the pooled dataset, [$(\beta_{\text{Original}} = .46)$, $t_{\text{Original}} = 6.35$, $p > .05$; $(\beta_{\text{Pooled}} = .46)$, $t_{\text{Pooled}} = 6.35$, $p < .05$]. Valence Towards Therapy also explained a significant proportion of variance in Report of Caregiver Encouragement Behaviors scores, $R^2 = .98$, $F(1, 1) = 40.33$, $p > .05$. Scores on Valence Towards Therapy significantly predicted Report of Caregiver

Modeling Behaviors scores in the pooled dataset, [$\beta_{\text{Original}} = .85$), $t_{\text{Original}} = 9.82$, $p > .05$; ($\beta_{\text{Pooled}} = .85$), $t_{\text{Pooled}} = 9.82$, $p < .05$]. Valence Towards Therapy also explained a significant proportion of variance in Report of Caregiver Modeling Behaviors scores, $R^2 = .99$, $F(1, 1) = 96.33$, $p > .05$.

Self-Efficacy.

Scores on Self-Efficacy significantly predicted Report of Caregiver Use of Reinforcement Behaviors scores in the pooled dataset, [$\beta_{\text{Original}} = .57$), $t_{\text{Original}} = 2.99$, $p > .05$; ($\beta_{\text{Pooled}} = .57$), $t_{\text{Pooled}} = 2.99$, $p < .05$]. Self-Efficacy also explained a significant proportion of variance in Report of Caregiver Use of Reinforcement Behaviors scores, $R^2 = .90$, $F(1, 1) = 8.95$, $p > .05$. Scores on Self-Efficacy significantly predicted Report of Caregiver Use of Instruction Behaviors scores in the pooled and original datasets, [$\beta_{\text{Original}} = .14$), $t_{\text{Original}} = 5.20$, $p > .05$; ($\beta_{\text{Pooled}} = .14$), $t_{\text{Pooled}} = 5.20$, $p < .05$]. Self-Efficacy also explained a significant proportion of variance in Report of Caregiver Use of Instruction Behaviors scores, $R^2 = .96$, $F(1, 1) = 27.00$, $p > .05$.

Perceptions of General Invitations from the Agency.

Scores on Perceptions of General Invitations from the Agency significantly predicted Report of Caregiver Modeling Behaviors scores in the pooled dataset, [$\beta_{\text{Original}} = -2.55$), $t_{\text{Original}} = -9.82$, $p > .05$; ($\beta_{\text{Pooled}} = -2.55$), $t_{\text{Pooled}} = -9.82$, $p < .05$]. Perceptions of General Invitations from the Agency also explained a significant proportion of variance in Report of Caregiver Modeling Behaviors scores, $R^2 = .99$, $F(1, 1) = 96.33$, $p > .05$.

Role Activity Beliefs.

Scores on Role Activity Beliefs significantly predicted Report of Caregiver Encouragement Behaviors scores in the pooled dataset, [$\beta_{\text{Original}} = -.30$), $t_{\text{Original}} = -2.13$, $p > .05$; ($\beta_{\text{Pooled}} = -.30$), $t_{\text{Pooled}} = -2.13$, $p < .05$]. Role Activity Beliefs also explained a significant

proportion of variance in Report of Caregiver Encouragement Behaviors scores, $R^2 = .82$, $F(1, 1) = 4.52$, $p > .05$. Scores on Role Activity Beliefs significantly predicted Report of Caregiver Use of Instruction Behaviors scores in the pooled and original datasets, [$\beta_{\text{Original}} = .09$], $t_{\text{Original}} = 2.06$, $p > .05$; ($\beta_{\text{Pooled}} = .09$), $t_{\text{Pooled}} = 2.06$, $p < .05$]. Role Activity Beliefs also explained a significant proportion of variance in Report of Caregiver Use of Instruction Behaviors scores, $R^2 = .81$, $F(1, 1) = 4.25$, $p > .05$.

Perceptions of Personal Knowledge and Skills.

Scores on Perceptions of Personal Knowledge and Skills significantly predicted Report of Caregiver Use of Reinforcement Behaviors scores in the pooled and original datasets, [$\beta_{\text{Original}} = -.35$], $t_{\text{Original}} = -2.43$, $p > .05$; ($\beta_{\text{Pooled}} = -.35$), $t_{\text{Pooled}} = -2.43$, $p < .05$]. Role Activity Beliefs also explained a significant proportion of variance in Report of Caregiver Use of Reinforcement Behaviors scores, $R^2 = .86$, $F(1, 1) = 5.88$, $p > .05$.

Non-Significant ($p > .05$) Interaction and High/Moderate Effect Size ($f^2 > .35$ / $f^2 > .15$).

Multiple Level 1 subscale scores had a non-significant ($p > .05$) interaction on Level 3 subscale scores but demonstrated practical significance through a high ($f^2 > .35$) or moderate ($f^2 > .15$) effect size. These data could indicate interactions that would have both statistical significance ($p < .05$) as well as practical significance ($f^2 > .15$) with a larger sample size.

Self-Efficacy.

Interactions between scores on Self-Efficacy and Report of Caregiver Encouragement Behaviors scores were statistically insignificant in the pooled and original datasets, [$\beta_{\text{Original}} = -.39$], $t_{\text{Original}} = -1.19$, $p > .05$; ($\beta_{\text{Pooled}} = -.39$), $t_{\text{Pooled}} = -1.19$, $p > .05$]. However, there was a large ($f^2 > .35$) effect size for this interaction $R^2 = .58$, $F(1, 1) = 1.40$, $p > .05$.

Perceptions of General Invitations from the Agency.

Interactions between scores on Perceptions of General Invitations from the Agency and Report of Caregiver Encouragement Behaviors scores were statistically insignificant in the pooled and original datasets, [$(\beta_{\text{Original}} = -1.38)$, $t_{\text{Original}} = -6.35$, $p > .05$; $(\beta_{\text{Pooled}} = -1.38)$, $t_{\text{Pooled}} = -6.35$, $p > .05$]. However, there was a large ($f^2 > .35$) effect size for this interaction $R^2 = .98$, $F(1, 1) = 40.33$, $p > .05$.

Perceptions of Specific Invitations from the Clinician.

Interactions between scores on Perceptions of Specific Invitations from the Clinician and Report of Caregiver Encouragement Behaviors scores were statistically insignificant in the pooled and original datasets, [$(\beta_{\text{Original}} = .20)$, $t_{\text{Original}} = 4.25$, $p > .05$; $(\beta_{\text{Pooled}} = .18)$, $t_{\text{Pooled}} = 1.45$, $p > .05$]. However, there was a large ($f^2 > .35$) effect size for this interaction $R^2 = .95$, $F(1, 1) = 18.02$, $p > .05$. Interactions between scores on Perceptions of Specific Invitations from the Clinician and Report of Caregiver Modeling Behaviors scores were statistically insignificant in the pooled and original datasets, [$(\beta_{\text{Original}} = .37)$, $t_{\text{Original}} = 5.60$, $p > .05$; $(\beta_{\text{Pooled}} = .35)$, $t_{\text{Pooled}} = 1.63$, $p > .05$]. However, there was a large ($f^2 > .35$) effect size for this interaction $R^2 = .97$, $F(1, 1) = 31.36$, $p > .05$.

Role Activity Beliefs.

Interactions between scores on Role Activity Beliefs and Report of Caregiver Modeling Behaviors scores were statistically insignificant in the pooled and original datasets, [$(\beta_{\text{Original}} = -.54)$, $t_{\text{Original}} = -1.86$, $p > .05$; $(\beta_{\text{Pooled}} = -.54)$, $t_{\text{Pooled}} = -1.86$, $p > .05$]. However, there was a large ($f^2 > .35$) effect size for this interaction $R^2 = .78$, $F(1, 1) = 3.45$, $p > .05$. Interactions between scores on Role Activity Beliefs and Report of Caregiver Use of Reinforcement Behaviors scores were statistically insignificant in the pooled and original datasets, [$(\beta_{\text{Original}} = .33)$, $t_{\text{Original}} = 1.51$, $p >$

.05; ($\beta_{\text{Pooled}} = .33$), $t_{\text{Pooled}} = 1.51$, $p > .05$]. However, there was a large ($f^2 > .35$) effect size for this interaction $R^2 = .70$, $F(1, 1) = 2.29$, $p > .05$.

Perceptions of Personal Knowledge and Skills.

Interactions between scores on Perceptions of Personal Knowledge and Skills and Report of Caregiver Modeling Behaviors scores were statistically insignificant in the pooled and original datasets, [$(\beta_{\text{Original}} = .06)$, $t_{\text{Original}} = .10$, $p > .05$; ($\beta_{\text{Pooled}} = .06$), $t_{\text{Pooled}} = .10$, $p > .05$]. However, there was a Large ($f^2 > .35$) effect size for this interaction with the adjusted R^2 , $R^2 = .98$, $F(1, 1) = .01$, $p > .05$. Interactions between scores on Perceptions of Personal Knowledge and Skills and Report of Caregiver Use of Instruction Behaviors scores were statistically insignificant in the pooled and original datasets, [$(\beta_{\text{Original}} = -.08)$, $t_{\text{Original}} = -1.73$, $p > .05$; ($\beta_{\text{Pooled}} = -.08$), $t_{\text{Pooled}} = -1.73$, $p > .05$]. However, there was a large ($f^2 > .35$) effect size for this interaction $R^2 = .75$, $F(1, 1) = 3.00$, $p > .05$.

Perceptions of Personal Time and Energy.

Interactions between scores on Perceptions of Personal Time and Energy and Report of Caregiver Use of Reinforcement Behaviors scores were statistically insignificant in the pooled and original datasets, [$(\beta_{\text{Original}} = -.35)$, $t_{\text{Original}} = -1.52$, $p > .05$; ($\beta_{\text{Pooled}} = -.35$), $t_{\text{Pooled}} = -1.52$, $p > .05$]. However, there was a large ($f^2 > .35$) effect size for this interaction $R^2 = .70$, $F(1, 1) = 2.32$, $p > .05$. Interactions between scores on Perceptions of Personal Time and Energy and Report of Caregiver Use of Instruction Behaviors scores were statistically insignificant in the pooled and original datasets, [$(\beta_{\text{Original}} = -.08)$, $t_{\text{Original}} = -1.16$, $p > .05$; ($\beta_{\text{Pooled}} = -.08$), $t_{\text{Pooled}} = -1.16$, $p > .05$]. However, there was a large ($f^2 > .35$) effect size for this interaction $R^2 = .57$, $F(1, 1) = 1.33$, $p > .05$.

Perceptions of Specific Invitations from the Client.

Interactions between scores on Perceptions of Specific Invitations from the Client and Report of Caregiver Encouragement Behaviors scores were statistically insignificant in the pooled and original datasets, [$(\beta_{\text{Original}} = .21)$, $t_{\text{Original}} = 1.24$, $p > .05$; $(\beta_{\text{Pooled}} = .21)$, $t_{\text{Pooled}} = 1.24$, $p > .05$]. However, there was a large ($f^2 > .35$) effect size for this interaction $R^2 = .61$, $F(1, 1) = 1.53$, $p > .05$. Interactions between scores on Perceptions of Specific Invitations from the Client and Report of Caregiver Modeling Behaviors scores were statistically insignificant in the pooled and original datasets, [$(\beta_{\text{Original}} = .40)$, $t_{\text{Original}} = 1.39$, $p > .05$; $(\beta_{\text{Pooled}} = .40)$, $t_{\text{Pooled}} = 1.39$, $p > .05$]. However, there was a large ($f^2 > .35$) effect size for this interaction $R^2 = .66$, $F(1, 1) = 1.92$, $p > .05$.

Summary

This chapter explored the reliability of the Hoover-Dempsey and Sandler Model of Parental Involvement (2005) and the Parent Involvement Project Questionnaire (PIPQ) (Hoover-Dempsey & Sandler, 2005) following minor alterations to shift the questionnaire from an educational survey to a counseling survey. Descriptive statistics for responses on these subscales were provided as well as results from a missing values analysis to determine the randomness of missing data. Additionally, differences between clinician ratings on the PIPQ compared to caregiver and client ratings were explored. The interaction between Caregiver Level 1 subscales on Caregiver Level 2 subscales and on Client Level 3 subscales were also examined.

For Research Question 1, both Caregiver and Clinician subscale ratings exhibited reliability at the ($\alpha = .70$) threshold for Level 1 subscales. However, ratings on the Self-Efficacy, Perceptions of General Invitations from Agency, and Perceptions of Personal Time and Energy were under this threshold. Choice of Involvement Activities: Client-Specific was the only

subscale with alpha ratings below the .70 threshold for Caregiver and Clinician Level 2 ratings. For Level 3 subscale ratings, all Clinician ratings had alpha levels at .70 or greater, but Client ratings on Report of Caregiver Use of Instruction Behaviors and Report of Caregiver Encouragement Behaviors were both below the .70 threshold. Client ratings on Level 4 subscales were both beneath the .70 threshold and Clinician ratings were above the .70 alpha level for only the Self-Report of Active Engagement Behaviors Subscale.

For Research Question 2, differences were observed between Clinician and Caregiver ratings on Level 1 subscales with clinicians rating Caregiver Level 1 subscales higher than caregiver rate themselves. Caregivers rated themselves higher than clinicians for the General Invitations from the Agency subscale. Differences were also observed between Clinician and Caregiver ratings on Level 2 subscales with Clinicians reporting higher ratings than Caregivers. Clinicians also reported higher ratings than Clients on Level 3 and Level 4 ratings.

For Research Question 3, statistically significant relationships were found across multiple interactions between Caregiver Level 1 and Level 2 subscale responses. Additionally, large and moderate effect sizes were observed for both significant and non-significant interactions. The forced entry linear regressions revealed positive relationships between Role Activity Beliefs and Report of Modeling Behaviors, Self-Efficacy and Report of Reinforcement Behaviors, Perceptions of Personal Knowledge and Skills and Report of Reinforcement Behaviors, Self-Efficacy and Caregiver Report of Reinforcement, and Perceptions of Personal Knowledge and Skills and Report of Reinforcement Behaviors. The simple linear regressions revealed additional interactions that became significant outside of the forced entry model. Valence Towards Therapy had a positive effect on Choice of Involvement Behaviors: Client-Specific and Choice of Involvement Behaviors: Agency-General. Perceptions of General Invitations from the Agency

had a positive effect on Choice of Involvement Activities: Client-Specific, Choice of Involvement Activities: Agency-General, Report of Encouragement Behaviors, and Report of Modeling Behaviors. Perceptions of Specific Invitations from the Clinician had a positive effect on Choice of Involvement Behaviors: Client-Specific and Report of Modeling. Role Activity Beliefs and Perceptions of Personal Knowledge and Skills both had a positive effect on all Level 2 subscales. Perceptions of Personal Time and Energy had a positive effect on all Level 2 subscales except for Report of Modeling. Perceptions of Specific Invitations from the Client had a positive effect on Choice of Involvement Activities: Client-Specific, Choice of Involvement Activities: Agency-General, Report of Reinforcement Behaviors, and Report of Instruction Behaviors.

For Research Question 4, statistically significant relationships in the simple linear regressions were found across multiple interactions between Caregiver Level 1 and Client Level 3 subscale responses. Additionally, large and moderate effect sizes were observed for both significant and non-significant interactions. Valence Towards Therapy had a positive effect on Report of Caregiver Encouragement Behaviors and Report of Caregiver Modeling Behaviors. Self-Efficacy had a positive effect on Report of Caregiver Use of Reinforcement Behaviors and Report of Caregiver Use of Instruction Behaviors. Perceptions of General Invitations from the Agency had a negative effect on Report of Caregiver Modeling Behaviors. Role Activity Beliefs had a negative effect on Report of Caregiver Encouragement Behaviors and a positive effect on Report of Caregiver Use of Instruction Behaviors. Perceptions of Personal Knowledge and Skills had a negative effect on Report of Caregiver Use of Reinforcement Behaviors. Non-significant interactions with moderate or high effect sizes were also observed across Level 1 subscale effects on Level 3 subscales. Self-Efficacy had a negative effect on Report of Caregiver Encouragement

Behaviors. Perceptions of General Invitations from the Agency had a negative effect on Report of Caregiver Encouragement Behaviors. Perceptions of Specific Invitations from the Clinician had a positive effect on Report of Caregiver Encouragement Behaviors and Report of Caregiver Modeling Behaviors. Role Activity Beliefs had a negative effect on Report of Caregiver Modeling Behaviors and a positive effect on Report of Caregiver Use of Reinforcement Behaviors. Perceptions of Personal Knowledge and Skills had a positive effect on Report of Caregiver Modeling Behaviors and a negative effect on Report of Caregiver Use of Instruction Behaviors. Perceptions of Personal Time and Energy had a negative effect on Report of Caregiver Use of Reinforcement Behaviors and Report of Caregiver Use of Instruction Behaviors. Perceptions of Specific Invitations from the Client had a positive effect on Report of Caregiver Encouragement Behaviors and Report of Caregiver Modeling Behaviors.

Chapter V

Discussion

The present research explored the application of the Hoover-Dempsey and Sandler Model of Parental Involvement (2005) and its associated survey, the Parent Involvement Project Questionnaire (PIPQ) (Hoover-Dempsey & Sandler, 2005) as a clinical model for conceptualizing and assessing caregiver engagement in their child's Mental Health Rehabilitation (MHR) counseling services. The reliability of the PIPQ was explored as well as the differences in ratings between clinician ratings on the PIPQ from the caregiver's and client's ratings on the PIPQ. Caregiver's motivation, self-efficacy, perception of invitations to become engaged in services, and their perceived life context's interaction with caregiver engagement behaviors and the client's perception of these behaviors was also explored. This chapter provides a summary of the research and examines its implications in relation to existing literature on caregiver engagement in their child's mental health counseling services. Limitations of the current study as well as recommendations for future studies will also be discussed prior to conclusion.

Discussion of Research Findings

The purpose of the present research was to explore influences on caregiver engagement behaviors in their child's MHR services through the utilization of a modified version of the PIPQ. Throughout the study, 19 caregivers, 3 clients, and 17 clinicians completed the study after recruitment attempts were made via contact with 27 different MHR agencies across Louisiana in addition to 72 postings to Louisiana Mental Health Clinician social media pages. Results from this research sample indicated acceptable reliability scores for the majority of the subscales in the modified PIPQ for caregivers, clients, and clinicians. Additionally, clinician ratings on the caregiver and client PIPQ differed from caregiver and client ratings. Interactions were also found

between caregiver Level 1 and Level 2 ratings on the PIPQ as well as between caregiver Level 1 ratings on the PIPQ and client Level 3 ratings on the PIPQ.

Low Participation

Qualitative data from calls for participants indicated a trend for MHR agencies and clinicians that matched prior research (Baker-Ericzén et al., 2013; Freadling & Foss, 2015; Haime-Schlagel et al., 2017; Hanley et al., 2017; Rogers, 2014; Stein et al., 2015). Agencies reported concerns of their clinicians being stressed and overworked due to agency requirements and new policies enacted by the Louisiana Department of Health. Agencies indicated that these stressors had led to high counts of clinician turnover, which followed trends reported in previous research (Freadling & Foss, 2014; Hanley et al., 2017; Stein et al. 2015). Responses to social media postings followed similar trends with multiple responses indicating that individuals were former MHR clinicians or knew clinicians who previously worked in MHR but left due to numerous stressors. Several agencies also indicated that caregiver engagement was already low, which can further contribute to clinician burnout and turnover (Baker-Ericzén et al., 2013; Haime-Schlagel et al., 2017; Rogers, 2014).

Reliability of the PIPQ as a Measure of Caregiver Engagement in MHR

Alpha levels on the Caregiver PIPQ Level 1 subscales were all .65 or greater for clinician ratings other than the Self-Efficacy subscale, which may have been negatively influenced by the low participation numbers. Clinician alpha levels for Level 1 subscales were at least .57. These alpha levels were smaller than those reported by Hoover-Dempsey and Sandler (2005) with their lowest alpha score for Level 1 subscales being .70. Caregiver Level 2 subscale alpha levels were also low for the Choice of Involvement Activities: Client-Specific subscale ($\alpha=.54-.63$), but other subscales were .78 or greater, which was above Hoover-Dempsey and Sandler's (2005) lowest

subscale ratings of .76. Clinician ratings were again lower than Hoover-Dempsey and Sandler's (2005) with alpha levels being .66 and greater. Client level 3 and 4 subscales were both low, most likely due to there being only 3 participants in this sample. However, clinician ratings for Level 3 were at least .71, which was similar to Hoover-Dempsey and Sandler's (2005) alpha levels of at least .75. Clinician Level 4 alpha levels were .64 and .83 for the two subscales, which was greater than Hoover-Dempsey and Sandler's (2005) alpha levels of at least .61.

Differences Between Clinician Ratings from Caregiver and Client Ratings

Prior studies (Baker- Ericzén et al., 2013; Keller & McDade, 2000; Olin et al., 2016) have reported that there is often a difference between how clinicians perceive treatment engagement and barriers with how caregivers perceive those same factors. Comparisons between caregiver and clinician ratings on PIPQ Level 1 subscales indicated that clinicians rated caregiver motivation, self-efficacy, perception of invitations to become engaged in services, and perceived life context higher than caregivers did in this sample. However, caregivers rated their Perception of Invitations from the Agency higher than clinicians rated this subscale. Clinicians also rated scores on PIPQ Level 2 subscales higher than caregivers rated themselves as well as rating PIPQ Level 3 and 4 subscales higher than clients rated themselves. These results may indicate a pattern of clinicians believing that caregivers and clients perceive higher levels of caregiver engagement than they report themselves. This pattern suggests the potential for further mismatches between clinician perceptions from those of the client and caregiver, leading to increased frustration and miscommunication between the clinician, caregiver, and client.

These differences re-emphasize Lyon and Budd's (2010) call for additional research exploring cognitive mismatches between caregivers and clinicians regarding engagement behaviors and barriers. The results from this study provide evidence for continued studies using

this method of comparing clinician and caregiver scores, which may become more statistically and practically significant with a larger sample size than the current study. Acquiring this data could help to begin addressing Haine-Schlagel et al.'s (2017) report of caregivers desiring more frequent and effective collaboration regarding their child's mental health services.

Interaction Between Caregiver Level 1 Ratings and Caregiver Level 2 Ratings on the PIPQ

Interactions between caregiver motivation, self-efficacy, perception of invitations to become engaged in services, and perceived life context, as measured by Level 1 of the PIPQ, and their report of engagement behaviors, as measured by Level 2 of the PIPQ, revealed both positive and negative interactions between different subscales for this sample. Trends were similar for both the forced entry regression data as well as simple linear regression data.

Valence Towards Therapy

Valence Towards Therapy had a negative interaction with Report of Instruction Behaviors in both the original and pooled datasets of the simple regression models but all other interactions were positive. In the forced entry regression models, there was a negative interaction with Report of Encouragement Behaviors in the original dataset and with Report of Reinforcement Behaviors and Report of Instruction Behaviors in both the original and pooled datasets. Choice of Involvement Activities: Agency-General was the largest positive interaction and Report of Instruction Behaviors was the largest negative interaction in the simple regression models. The interactions in this sample indicate a possible mediating effect with other Level 1 subscales in the forced entry models due to the positive interactions present in the simple regression models that demonstrate an increase in engagement behaviors as parents report higher valence towards therapy in this sample. These results echo prior research that claims caregiver experiences with treatment and beliefs about treatment can impact their engagement behaviors (Garland et al.,

2012; Haine-Schlagel et al., 2017; Hassett et al., 2018; Kazdin & Wassell, 1999; McPherson et al., 2017; Schley et al., 2012).

Self-Efficacy

Self-Efficacy had negative interactions with every Level 2 subscale other than Report of Instruction Behaviors in the simple regression models. Report of Encouragement Behaviors was the largest negative interaction in the original dataset and Choice of Involvement Activities: Agency-General was the largest negative interaction in the pooled dataset. The forced entry regression models demonstrated a positive interaction between Level 1 and Level 2 subscales. The results indicate that in this sample, caregiver's behaviors to teach clients strategies to problem solve and manage stress increases as their self-efficacy increases. These interactions follow Walker et al.'s (2010) reports that parental efficacy in assisting with their child's treatment determines their responsiveness to invitations to become engaged, which could explain the effect with Choice of Involvement Activities subscales.

Perceptions of General Invitations from the Agency

Perceptions of General Invitations from the Agency had positive interactions with all Level 2 subscales in both the simple regression and forced entry regression models. The largest interaction in the original dataset of the forced entry model was with Report of Encouragement Behaviors and the largest interaction in the pooled dataset was with Choice of Involvement Activities: Agency-General. Report of Encouragement Behaviors was also the largest interaction in the simple regression models for both the original and pooled datasets. These results indicate that caregiver's engagement behaviors in this sample increased as their Perceptions of General Invitations from the Agency scores increased. Anderson and Minke (2007) and Walker et al. (2010) both reported that caregivers engage more effectively in their child's services when they

perceive an invitation to be involved. Being invited to provide input in these services and understanding the importance of this engagement can both improve caregiver's willingness to engage and engagement behaviors (Anderson and Minke, 2007; Coatsworth et al., 2006; Haine-Schlagel & Walsh, 2015; Haine-Schlagel et al., 2017; Schley et al., 2012; Walker et al., 2010).

Perceptions of Specific Invitations from the Clinician

Perceptions of Specific Invitations from the Clinician had positive interactions with all Level 2 subscales in the simple regression models with Report of Encouragement Behaviors being the largest interaction in the original dataset and Choice of Involvement Activities: Agency-General being the largest interaction in the pooled dataset. There was a negative interaction in the forced entry model with Report of Reinforcement Behaviors and Report of Instruction Behaviors indicating that there may be a mediating effect with other Level 1 subscales due to the positive interactions present in the simple regression model. These interactions indicate that caregiver's engagement behaviors in this sample increased as their perceptions of invitations to become involved in services from the clinician also increased.

Haine-Schlagel et al. (2017) reported that caregiver's perceptions of support from clinicians improves caregiver engagement in services and there is previous research that indicates difficulties in communication between clinicians and caregivers can negatively impact caregiver engagement (Breland-Noble, 2012; Fraynt et al., 2014; Olin et al., 2016; Westin et al., 2014). Collaboration between caregivers and clinicians can also improve caregiver satisfaction with services and their perception of its relevance (Fawley-King et al., 2013; Karpenko & Owens, 2013; Kazdin et al., 1997; Lyon & Budd, 2010; Olin et al., 2016), which could improve encouragement and engagement behaviors as indicated by this sample's data.

Role Activity Beliefs

Role Activity Beliefs had significant positive interactions with all Level 2 subscales in the simple regression models. In the forced entry models, Role Activity Beliefs had a significant positive interaction with Report of Modeling Behaviors in the original dataset and a negative interaction with Report of Reinforcement in both the original and pooled datasets. These interactions indicate that caregiver reports of engagement behaviors in this sample increase when their perception of their responsibilities in participating and engaging in services increase. These responsibilities are listed in the MHR requirements by the Louisiana Department of Health (2022) but are not overtly described and these engagement behaviors can have a variety of presentations (Fraynt et al., 2014; Garland et al., 2012; Jensen-Doss & Weisz, 2008; Haine-Schlagel et al., 2017; Haine-Schlagel & Walsh, 2015; Westin et al., 2014). This engagement can also indicate that the client and caregiver are both utilizing skills from session in between sessions (Haine-Schlagel & Walsh, 2015).

Perceptions of Personal Knowledge and Skills

Perceptions of Personal Knowledge and Skills had significant positive interactions with all Level 2 subscales in the pooled dataset for the simple regression models and Report of Reinforcement Behaviors was the largest interaction in both the pooled and original datasets. Report of Encouragement Behaviors had a negative interaction with Perceptions of Personal Knowledge and Skills in the pooled dataset of the forced entry regression model, which may indicate a mediating effect from other Level 1 subscales on these scores. These results indicate that as caregiver's perceptions of their knowledge regarding clinical topics and skills to actively utilize this knowledge increases in this sample, their use of reinforcement behaviors to encourage the client to utilize these skills themselves also increases. The negative interaction with Report of

Encouragement Behaviors in the forced entry model may indicate that Report of Reinforcement Behaviors and Report of Encouragement Behaviors are inversely related. These results match with previous reports (Haine-Schlagel & Walsh, 2015; Lyon & Budd, 2010) that engagement behaviors and skills training and use are positively related.

Perceptions of Personal Time and Energy

Perceptions of Personal Time and Energy had significant positive interactions with Report of Encouragement Behaviors and Report of Reinforcement Behaviors in the original and pooled datasets of the simple regression models. In the forced entry model, Perceptions of Personal Time and Energy had a negative interaction with both Choice of Involvement Activities subscales and the Report of Modeling Behaviors and Report of Reinforcement Behaviors. The differences between the forced entry and simple regression models may indicate a mediating effect by other Level 1 measures with Perceptions of Personal Time and Energy since the simple regression model indicated that engagement behaviors increased as Perceptions of Personal Time and Energy scores increased. This interaction mirrors prior studies' (Anderson & Minke, 2007; Baker-Ericzén et al., 2013; Fawley-King et al., 2013; Kazdin & Wassell, 1998; Kazdin & Wassell, 1999; Keller & McDade, 2000; Lyon & Budd, 2010; McPherson et al., 2017) reports that engagement behaviors decrease with lower perceptions of time and energy to be involved in services.

Perceptions of Specific Invitations from the Client

In the simple regression model, there were positive interactions between Perceptions of Specific Invitations from the Client with Report of Encouragement Behaviors and Report of Instruction Behaviors. The forced entry regression model indicated negative interactions with Report of Modeling and Report of Encouragement. The difference between these two models

may indicate a mediating effect from other Level 1 subscales with Perceptions of Specific Invitations from the Client. The positive interaction between scores on Perceptions of Specific Invitations from the Client and the engagement behavior subscales follows prior reports that as caregiver's perceptions of invitations from the client increase, engagement behaviors in services also increase (Anderson and Minke, 2007; Coatsworth et al., 2006; Haine-Sclagel & Walsh, 2015; Walker et al., 2010).

Interaction Between Caregiver Level 1 Ratings and Client Level 3 Ratings on the PIPQ

Interactions between caregiver motivation, self-efficacy, perception of invitations to become engaged in services, and perceived life context, as measured by Level 1 of the PIPQ, and the client's report of their caregiver's engagement behaviors, as measured by Level 3 of the PIPQ, revealed both positive and negative interactions between different subscales for this sample. However, the low sample size resulted in inconclusive forced-entry regression models. Therefore, simple regression models were used to explore these interactions.

Valence Towards Therapy

Valence Towards Therapy had the largest positive interaction with Report of Caregiver Modeling Behaviors and the largest negative interaction with Report of Caregiver Use of Reinforcement Behaviors. These interactions indicate that in this sample, clients perceived more modeling behaviors from their caregivers when these caregivers report more positive experiences in their own therapy. These results mirror Haine-Schlagel et al.'s (2017) report that caregiver's beliefs about therapy can impact their engagement in their child's services. Hassett et al. (2018) made a similar report and additional studies (Garland et al., 2012; McPherson et al., 2017; Schley et al., 2012) indicate that caregivers who have poor experiences in their own therapy tend to engage less effectively in their child's services.

Self-Efficacy

Self-Efficacy had the largest positive interaction with Report of Caregiver Use of Reinforcement Behaviors and the largest negative interaction with Report of Caregiver Modeling Behaviors. This interaction demonstrates that clients in this sample perceived more approving behaviors related to their skills and behaviors in therapy and fewer examples of their caregivers engaging in these behaviors themselves when caregivers reported higher self-efficacy. This relationship may mirror Walker et al.'s (2010) report that engagement behaviors are dependent on the caregiver's sense of self-efficacy as well as the possibility that some of these engagement behaviors present in a way that is not easily recognized by the client (Fraynt et al., 2014; Garland et al., 2012; Jensen-Doss & Weisz, 2008; Haine-Schlagel et al., 2017; Haine-Schlagel & Walsh, 2015; Westin et al., 2014).

Perceptions of General Invitations from the Agency

Perceptions of General Invitations from the Agency also had the largest positive interaction with Report of Caregiver Use of Reinforcement Behaviors and the largest negative interaction with Report of Caregiver Modeling Behaviors. Therefore, clients in this sample perceived more approving behaviors related to their skills and behaviors in therapy and fewer examples of their caregivers engaging in these behaviors themselves when caregivers reported a greater perception of invitations to become involved in treatment by the agency. This interaction mirrors reports that perceptions of invitations for involvement and invitations to learn and use skills outside of session influence engagement behaviors (Fawley-King et al., 2013; Haine-Schlagel et al., 2017; Schley et al., 2012).

Perceptions of Specific Invitations from the Clinician

Perceptions of Specific Invitations from the Clinician had the largest positive interaction with Report of Caregiver Modeling Behaviors in both the original and pooled datasets. Report of Caregiver Use of Reinforcement Behaviors was the largest negative interaction in the original dataset and Report of Caregiver Use of Instruction Behaviors was the largest and only negative interaction in the pooled dataset. However, the size of this negative interaction indicates that it may be due to sample size. The increase in perceived modeling behaviors by clients as caregivers report more instances of invitations to become involved in services from the clinician mirrors reports by Haine-Schlagel et al. (2017) and Schley et al. (2012) that caregiver's perceptions of invitations to become involved in services impacts their engagement in those services.

Role Activity Beliefs

Role Activity Beliefs had the largest positive interaction with Report of Caregiver Use of Reinforcement Behaviors and the largest negative interaction with Report of Caregiver Modeling Behaviors in both the pooled and original datasets. Therefore, clients perceived greater reinforcing behaviors of clinical skills and fewer instances of their caregivers modeling these skills when caregivers reported higher scores on Role Activity Beliefs. Haine-Schlagel and Walsh (2015) reported that caregivers who engage in services are more likely to utilize skills being used in session and that the clients are also more likely to utilize these skills. This relationship matches the trends in this dataset for the Caregiver Use of Reinforcement Behaviors subscale since caregivers may be reinforcing the client's use of skills that were learned in session even if they are not evidently using these skills from the client's perspective.

Perceptions of Personal Knowledge and Skills

Perceptions of Personal Knowledge and Skills had the largest positive interaction with Report of Caregiver Modeling Behaviors and Report of Caregiver Use of Reinforcement Behaviors was the largest negative interaction in both the original and pooled datasets. This interaction indicates that clients perceived more behaviors from their caregiver modeling skills learned in therapy and fewer behaviors reinforcing their own use of clinical skills when their caregiver reported higher perceptions of their own knowledge and skills. These interactions match Lyon and Budd's (2010) report that caregiver skills training can lead to improved interactions between the caregiver and client, which may account for the increased report of modeling behaviors.

Perceptions of Personal Time and Energy

Perceptions of Personal Time and Energy had negative interactions with all Level 3 subscales and Report of Caregiver Use of Reinforcement was the largest of these interactions. These results may be due to the low sample size of client respondents as previous literature reports an expected increase in perceivable caregiver engagement behaviors as caregivers have more time and energy to become engaged (Fawley-King et al., 2013; Haine-Schlagel & Walsh, 2015; Kazdin & Wassell, 1998; McPherson et al., 2017).

Perceptions of Specific Invitations from the Client

Perceptions of Specific Invitations from the Client had the largest positive interaction with Report of Caregiver Modeling Behaviors in both the pooled and original datasets. This interaction indicates that clients perceived more behaviors from their caregivers modeling clinical skills when caregivers also reported a higher perception of being invited to be involved by the client. This interaction follows reports that caregiver perceptions of invitations is

positively related to caregiver's learning of clinical skills and perceiving that their role is to be engaged in services (Anderson and Minke, 2007; Coatsworth et al., 2006; Fawley-King et al., 2013; Haine-Scragel & Walsh, 2015; Walker et al., 2010).

Implications

The following section discusses implications for counseling students, MHR clinicians, counselor educators, and the MHR system based on results from the current research findings.

Implications for Students and MHR Clinicians

McPherson et al. (2017) emphasized the importance of clinicians being prepared to assess for caregiver engagement behaviors and barriers and to have reliable interventions to address these barriers. This study further emphasized this need through its demonstration of the differences present in the clinician, caregiver, and client samples on the ways that they report these factors as well as the interaction effects between Caregiver Level 1 subscales on Level 2 and 3 subscales. The results from this study indicated that clinicians often rated caregiver motivation, self-efficacy, perception of invitations to become engaged in services, and perceived life context higher than caregivers did in this sample. This difference implies that clinicians perceive caregivers as having higher motivation and ability to be engaged in services than caregivers perceive themselves. As noted in previous research (Baker-Ericzén et al., 2013; Olin et al., 2016), this disconnect can lead to clinicians having a more negative perception of the caregiver's engagement behaviors and willingness to engage. Clinicians need to be mindful of this possibility that they may be perceiving the caregiver's ability to engage higher than the caregiver is and will therefore need to provide skills training and interventions for the caregiver to improve upon this area.

The data regarding the PIPQ's reliability as a clinical assessment measure for caregiver engagement provides evidence of this survey being a potentially reliable and valid tool for clinicians to utilize in assessing for these differences. Clinicians could utilize this assessment either as part of the intake proceedings, during 6-month reassessments, or as part of an ongoing verbal assessment integrated into regular caregiver consultations. Should clinicians decide to utilize the PIPQ as a completed survey at intake and during 6-month reassessments, they would then be able to monitor and track caregiver progress not only in their reports of engagement behaviors, but also potential barriers regarding caregivers' motivation, self-efficacy, perception of invitations to become engaged in services, and perceived life context. Having this information would allow clinicians to tailor interventions and suggestions to that caregiver's unique needs and presentations. This strategy could help to begin addressing caregiver engagement behaviors by improving the caregiver's perceptions of the overall importance and benefit of counseling services for not only their child, but also for the caregiver and family unit as a whole.

Data regarding the interactions between caregiver Level 1 reports of their motivation to become engaged and perceptions of invitations and available resources to effectively engage with the caregiver Level 2 reports of their engagement behaviors and client Level 3 reports of their perception of these engagement behaviors provides additional information for clinicians to use to increase caregiver engagement in services. The regression data for the effects of caregiver Role Activity Beliefs, Perceptions of Personal Time and Energy, and Perceptions of Personal Knowledge and Skills indicates moderate to large effects that are statistically significant for this sample. These interactions indicate a strong likelihood that caregivers will engage in services more, and that their engagement behaviors will be perceived by their child, if they perceive that their involvement in their child's mental health services is valuable and necessary and that they

have the available resources to effectively engage in these services. Clinicians can use this interaction in their work with both the client and caregiver to increase caregiver engagement by emphasizing the importance of caregiver's involvement both within and between sessions. Clinicians can remind caregivers that sessions will only account for between 1 to 3 hours of the client's week, leaving a lot of time between sessions for information from sessions to be reinforced and modeled by the caregiver to further treatment progress. Clinicians could also tailor their interventions to explore the knowledge and skills that caregiver believe they can provide to assist in sessions and services and to bolster these areas for the caregiver to improve engagement. Home-based clinicians in MHR can also utilize the uniqueness of their treatment setting to further engage caregivers in treatment since home-based services automatically addresses some of the barriers of the caregiver's perception of their available time to engage in services.

Due to the increased rate of newly-graduated clinicians entering into community mental health counseling (MHR) services for their supervised experiences for licensure, counseling students and clinicians alike need to be aware of the factors influencing caregiver engagement and how these engagement behaviors can influence treatment progress and outcomes. The positive interactions in this study between caregiver's reports of their role activity beliefs on all reports of engagement behaviors is one area that clinicians and students can focus on specifically. Learning how to engage caregivers in the counseling process by first inviting them to engage and then exploring and explaining the roles that the caregivers can play in the counseling process can help to increase caregiver engagement and overall treatment efficacy. The positive interactions between caregiver perceptions of knowledge and skills as well as their time and energy with their overall engagement behaviors is another area where clinicians and students

could improve their awareness and potential interventions. Obtaining knowledge of this information through family counseling courses or child and adolescent-focused courses could aid counseling students and clinicians in both their practicum and internship experiences as well as future clinical experiences with child and adolescent clients and their caregivers.

Implications for Counselor Educators

Counselor educators similarly need to be aware of the interactions between caregiver perceptions of invitations, role activity beliefs, and perceptions of knowledge and skills as well as time and energy to become involved in their child's services. Counselor educators can emphasize these interactions in their coursework and supervision with counseling students. Providing students with information to raise their awareness of how these factors influence caregiver engagement could help to increase the student's use of assessment techniques and interventions to help improve caregiver engagement in their client's services. Counselor educators can use the data from this study to provide students with strategies and interventions to effectively communicate the caregiver's role in their child's services during informed consent procedures as well as ways to assess and intervene for low caregiver engagement throughout the treatment process. Discussions in the classroom and supervision sessions surrounding role activity beliefs would be of particular importance as conversations in session about the caregiver's role in their child's services are a pivotal aspect of the introductory session and rapport building process. McPherson et al. (2017) and Olin et al. (2016) both reported that providing support to the family systems benefits therapeutic alliance, caregiver engagement, and client retention in treatment. Therefore, it is important for counseling students to learn about this importance early in their education to provide this support early in their clinical experiences. Counselor educators can address this need by initiating conversations in their courses of potential

logistical barriers to caregiver engagement and providing students with creative intervention ideas to collaboratively address these barriers as much as possible with the caregiver in order to increase their engagement in their child's services.

Additionally, Mellin and Pertuit (2009) indicated that child and adolescent services are beginning to shift to a more in-home and community-based format. Counselor educators should therefore be prepared to inform their students who are seeking to work with child and adolescent clients after graduating about the potential barriers that they may encounter in their work, especially in MHR and CMHC settings. Counselor educators and programs could prepare students to address these barriers by finding ways to incorporate MHR and other CMHC treatment settings into either practicum and internship experiences or in classroom and engagement activities or assignments with MHR and CMHC agencies and clinicians. This exposure could help to provide students with concrete examples of the barriers present within these treatment settings as well as allow the clinicians working with these families to provide strategies and solutions that they have personally utilized to further the counseling student's list of potential interventions. This study and future studies utilizing a clinical version of the Hoover-Dempsey and Sandler Model of Parental Involvement (2005) and the PIPQ can provide quantitative evidence regarding these barriers and their effects on caregiver engagement and treatment outcomes for this clientele demographic. Providing this data to students would help to address the training gaps reported by Stanhope et al. (2011) for clinicians providing services in CMHC settings. Improving upon clinicians' readiness to provide services in MHR and CMHC formats would increase the efficacy of these services that are provided to lower-privileged, higher risk clients and their families. Additionally, this information and training could help to reduce the overall trend of clinician burnout and turnover prevalent in CMHC clinicians.

This study's participant outcomes provide additional implications for counselor educators supervising and advising counseling students seeking to study MHR or other community mental health settings. Feedback during the recruitment process provides evidence that attempting to study these settings in a time-limited study, such as a thesis or dissertation, may not be beneficial for counseling students. Counselor educators should be aware of the potential limitations that studying MHR and other CMHC services may present, especially when those studies rely on input from clinicians, caregivers, or clients. Counselor educators should be prepared with suggestions of ways to improve participation or ways to adjust the study to be more accommodating of the student's academic timeframe.

Implications for MHR Services

From a clinical perspective, this study provides agencies with additional options to assess caregiver factors and engagement behaviors in MHR services. Having this information available to agencies and clinicians would help to improve caregiver engagement in services. This improvement would subsequently improve overall treatment efficacy as well as the potential for improved client and family retention. These improved retention rates could then lead to improved fiscal outcomes through reduced missed session and premature termination from services. Additionally, these improvements in caregiver engagement could address the trend of high clinician turnover in MHR and other CMHC services. This improvement would also have a positive financial impact for agencies due to reduced resources being devoted to continuously training new clinicians. Clinician retention would also lead to improved client and family retention by reducing the frustration that these families also feel from high turnover rates with their child's clinicians.

This study also provides information that MHR agencies can use to address their policies and procedures. The Louisiana Department of Health (LDH) requires caregiver engagement in their child's MHR services but does not fully define what this engagement entails. Data from this study demonstrates the importance of invitations to become engaged in services from both the agency and clinician. Additionally, caregiver role activity beliefs strongly influence these caregiver engagement behaviors. By defining the caregiver engagement requirements more clearly, LDH and MHR agencies could improve caregivers' overall understanding of these obligations through adjustments in their intake paperwork and procedures. The improvements in caregiver engagement behaviors by having these behaviors more clearly defined would additionally improve the turnover rates prevalent in MHR and CMHC settings for both clinicians and clients. However, MHR and other CMHC settings would first need sufficiently robust data to analyze these trends and ways to address and improve caregiver engagement in their services.

Therefore, this study also provides implications for MHR agencies regarding research engagement and benefits of engaging in research focused on MHR services. Participant trends in this study indicate a barrier to research aimed at exploring MHR trends due to reluctance for agencies and their managing department, LDH, to be involved in research utilizing their clinicians, clients, or client caregivers. Responses from LDH indicated that they do not engage in research outside of their organization, nor do they promote research from individuals outside of their organization to the MHR agencies that they oversee. Individual MHR agencies provided similar responses that they do not engage in research studies or have policies prohibiting their employees from participating in these studies. This resistance to engaging in studies presents a unique paradox in MHR where the trends and issues that need to be researched directly within the MHR and CMHC systems are instead required to be investigated through studies focused on

settings and clients outside of the MHR and CMHC system. This trend limits the overall validity in associating results from these studies to an MHR setting and can lead to assumptions being made based on the study results that do not directly correlate to MHR. MHR agencies therefore need to consider the benefits and consequences of participating in studies that could directly benefit them. By engaging in these studies, MHR agencies could begin to address some of the trends in this setting that were listed as barriers to their participation in this study: clinician burnout, poor clinician engagement, high clinician turnover, poor balance between clinical requirements and requirements from LDH, and poor client and family engagement and communication in services. Without direct studies exploring these factors, LDH and MHR agencies are left to draw conclusions from studies focused on different treatment settings and systems.

Limitations

This research had several limitations in design, recruitment, and data collection. The largest of these limitations is the overall sample size of the completed study. This low sample size limits the validity of the study and its implications to child and adolescent MHR services overall. Additionally, the statistical procedures and results could be influenced by these low sample numbers. The low sample size is indicative of an additional limitation of the study regarding its recruitment strategy. Recruitment was initially attempted through individual MHR agencies in the hopes of recruiting current employees. Due to the resistance from MHR agencies in this procedure, individual participants were recruited through social media postings. Despite these calls for participants being made in Louisiana mental health clinician groups, this study may have still been completed online by individuals who did not meet inclusion criteria. The anonymous aspect of responding to online research surveys increases the potential of this

limitation. Participants were also incentivized with the potential of winning a \$15 Amazon gift card for their participation, which may have led to some individuals wanting to participate, even if they did not meet the inclusion criteria for the study.

The self-report aspect of the study also presents a limitation due to the possibility of these responses being inaccurate from participants trying to complete the survey quickly. This possibility highlights another limitation of the study, the overall length of the survey for participants to complete. This survey length may have led to repetitive or extreme responses to the survey questions in an attempt to answer the survey more quickly that would not be representative of the participant's genuine self-assessment. A final limitation of this study is its emphasis on willingness to engage in services and other behaviors related to these services. Therefore, the study is unlikely to be completed by those caregivers who struggle with participation overall. Participants are more likely to be motivated to engage in services and this study, which would skew the overall results to be more indicative of positive engagement behaviors and factors.

Recommendations for Future Research

An initial recommendation for future research is for this study to be completed within a longer time frame to allow for increased participant numbers. This format would allow for more time to build rapport with MHR agencies to increase motivation for them to recruit their clinicians to participate. The increased sample size and use of clinicians, clients, and client caregivers recruited directly from the MHR agencies would increase validity of the overall study to MHR services. This increased validity would allow for the PIPQ to be integrated as an assessment tool accessible to MHR agencies and clinicians to assess caregiver engagement behaviors and barriers to this behavior. The PIPQ results could then be analyzed for interactions

between PIPQ subscales as well as with demographic information also collected as part of the PIPQ. Regression trends would then be usable to predict caregiver engagement behaviors based on their Level 1 responses to assist in clinician interventions to address these barriers.

One strategy that may assist with this procedure in future research would be an improved incentive strategy for the study through federal funding. This study utilized funds from a grant to incentivize participants by making them eligible to be randomly selected to earn 1 of 33 \$15 Amazon gift cards. Despite this incentive possibility, recruitment and participation was still low. Having increased funds through a federal research grant would allow for participants to automatically earn a \$10 or \$15 gift card, which could increase participation and sample size. Increased funds would also allow for the possibility of clinicians to be incentivized further to recruit clients and their caregivers to participate by having an additional small incentive for completed groups of clients, their caregiver, and their assigned clinician completing their version of the PIPQ and following inclusion and participation instructions. Federal funding may also address barriers from the Louisiana Department of Health to engage in this study and advertise it to MHR agencies should this funding also be accessible to LDH. This study provides initial data indicating that the PIPQ reliably measures caregiver engagement and barriers to engagement, which has already been established throughout existing literature to impact treatment progress and outcomes. Future studies, in collaboration with LDH, could use this data to apply for federal grants for larger, long-term, future studies to continue exploring these impacts and design interventions to improve caregiver engagement, and subsequently, the effectiveness and efficiency of MHR services in Louisiana.

Future research could therefore also focus on the efficacy of different interventions used to address engagement behaviors through an experimental format. Studies could explore

differences in engagement behaviors and ratings on Level 1 measures following various intervention strategies to increase caregiver awareness and engagement behaviors. These studies could also explore the use of the PIPQ as an intervention and awareness-building tool by itself as well. Comparisons could be made between control groups, groups who only received the PIPQ at the intake session and during 6-month reassessments, and groups who received the PIPQ at the intake session and during 6-month reassessments but the clinician utilized these results to determine intervention strategies to address results from the PIPQ. This framework would also allow for relationships between PIPQ ratings and treatment outcomes at each 6-month reassessment.

Another recommendation for future research is to examine resistance from MHR and other CMHC clinical agencies to engage in research studies. This research could explore these barriers to participation as well as examine perceived benefits and deficits of this engagement according to agency directors and clinicians. This approach would help to begin addressing the funneling effect present in large-scale counseling research that focuses more on counseling students, educators, and supervisors. Having a more diverse and expansive research base investigating specific formats of treatment, such as MHR and CMHC, would allow for improved interventions and strategies focused specifically to these populations. Therefore, clinicians would have evidence-based interventions focused on their specific treatment populations rather than needing to utilize approaches that were not normed for these populations.

Conclusions

The present research provided evidence of the applicability of the PIPQ as a counseling assessment to explore caregiver engagement in MHR services. Reliability regarding the subscales of this assessment as well as differences in subscale scores between clinicians and the

clients and caregivers were also provided. Additionally, interactions between the caregiver's self-report on the PIPQ subscales examining their motivation, self-efficacy, perception of invitations to become engaged in services, and their perceived life context with caregiver self-reported engagement behaviors and their child's report of perceiving these behaviors. Results demonstrated that overall, the PIPQ was a reliable measure with this sample of clients, caregivers, and clinicians. Additionally, clinicians regularly rated caregiver and client measures on the PIPQ higher than caregivers and clients did. Both statistically significant as well as practically significant results were identified between caregiver Level 1 ratings with caregiver Level 2 and client Level 3 ratings. The largest interactions were observed for perceptions of invitations to become involved, role activity beliefs, and perceptions of time, energy, knowledge, and skills to be engaged in services. Results from this study also provided implication for future research focused on MHR and other CMHC settings due to the low willingness to participate and participation numbers in this sample. This study therefore provides a basis for future research to utilize the Hoover-Dempsey and Sandler Model of Parental Involvement (2005) and the clinical alterations to the Parent Involvement Project Questionnaire (Hoover-Dempsey & Sandler, 2005) from this study as a way to conceptualize and assess for caregiver engagement in MHR and other CMHC settings.

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Appendix A

Informed Consent Agreement

Title of the Study:

Caregiver Engagement in Their Child's Mental Health Rehabilitation Services:
Utilizing the Hoover-Dempsey and Sandler Model of Parental Involvement (2005)
in Mental Health Counseling

Researchers: Dr. Michelle Wade and Andrew Holmgren

Contact information:

Dr. Michelle Wade

The University of New Orleans

Department of Educational Leadership, Counseling, and Foundations Bicentennial
Educational Building, Room 172

2000 Lakeshore Dr New Orleans, LA 70148

504-280-6662

mewade@uno.edu

Andrew Holmgren

aqholmgr@uno.edu

Dear Participants,

My name is Andrew Holmgren, and I am a doctoral candidate at The University of New Orleans. Dr. Michelle Wade, and I are working on a research study to examine caregiver engagement in their child's mental health rehabilitation (MHR) counseling. The lead investigator for this study is Dr. Michelle Wade, an assistant professor at The University of New Orleans.

We are inviting you to participate in this research study, which includes a survey that will take approximately 20-30 minutes to complete, in the hopes of identifying ways to better improve MHR services and collaboration between

clinicians, caregivers, and clients in these services.

To be eligible for participating in this study, participants need to meet the following criteria:

- (1) Current MHR clients age 4-16 years old, their caregiver, and their current MHR therapist
- (2) Client has a Child and Adolescent Level of Care Utilization System (CALOCUS) score of 3 or 4
- (3) Client has been enrolled in treatment for at least 3 months prior to participation date.

Participation in this study is completely voluntary, and you can choose to stop participation in this study at any time with no penalty. Participants will be eligible to be randomly selected to receive 1 of 33 \$15 Amazon gift card as a thank you for their participation. Participants will be asked to provide their email address for this selection process and to distribute the gift cards to those participants who are selected. Your email address will not be included with your survey results and will only be used for the random selection and distribution of the gift card. There are no foreseeable risks for you to participate in this study. However, the survey questionnaire will ask you to reflect on your perceptions and behaviors within the counseling process, which may lead to some feelings of discomfort. Your answers will be anonymous, and the unique identifier that you will be asked to add will be used only to group responses from the client, caregiver and clinician. Your anonymous responses will be kept confidential and the electronic copies of the data will be stored on a password-protected computer. **If you are a parent or caregiver of a client and reached out directly to participate in this research, your child's mental health clinician will need to be contacted as well to inform them of your participation and to receive their responses to the survey as well.** Only the researchers involved in this study will have access to these protected documents. The results of the study may be published and shared with participating agencies on request. Any published data will not show any identifying information of the participants.

If you have any questions or concerns regarding this study, please contact Andrew Holmgren at aqholmgr@uno.edu or Dr. Michelle Wade at mewade@uno.edu. If you have any questions about your rights as a participant in this study, you may

contact the University of New Orleans IRB by phone at 504-2850-6021 or by email at unoirb@uno.edu. Please contact Dr. Roberto Refinetti (504-280-6291) at the University of New Orleans for answers to questions about this research, your rights as a human subject, and your concerns regarding a research-related injury

Voluntary Consent by Participant:

By clicking the next arrow, you acknowledge that you have read and understand your rights as a potential participant in this research study.

If you are the caregiver of the participating child, clicking next indicates your consent to participate in this study as well as your consent for your child to participate in this study.

If you directly requested to participate as a caregiver, your consent to participate in the study also indicates your consent for your child's mental health clinician/agency to be contacted to inform them of your participation and to recruit that clinician to participate too as part of the study.

If you do not wish to participate, you may close the window to exit.

Appendix B

Permission from Dr. Joan Walker to Use the PIPQ

Andrew Q Holmgren

From: Walker, Joan T. <jwalker@pace.edu>
Sent: Monday, August 29, 2022 8:04 PM
To: Andrew Q Holmgren
Subject: Re: Parent Involvement Project Questionnaire
Attachments: Walker-Shenker-H-D_Model Counselors.pdf

Follow Up Flag: Follow up
Flag Status: Completed

WARNING: This email originated outside of the University of New Orleans system. The sender of this email could not be validated and may not actually be the person in the "From" field. Do NOT click links or open attachments if the message seems suspicious in any way. Never provide your user ID or password.

Dear Andrew,

Thank you for your interest in our work. You are very welcome to use the model and our related scales, which can be found on our archived website:

<http://web.archive.org/web/20130202151528/http://www.vanderbilt.edu/peabody/family-school/Reports.html>

On the site, please refer to the Statement of Use document, which explains which papers to cite for the specific scales you used. The site also contains technical reports to the funding agency, IES, regarding scale development and administration.

As you may already know, I published a co-authored piece in Professional School Counselor describing the model's implications for school counselors. I've attached that here in case it is of interest to you.

Best wishes to you on your research. Please do let me know what you learn!

Joan Walker

From: Andrew Q Holmgren <aqholmgr@my.uno.edu>
Sent: Monday, August 29, 2022 3:25 PM
To: Walker, Joan T. <jwalker@pace.edu>
Subject: Parent Involvement Project Questionnaire

Dr. Walker,

I hope you are doing well and are having a positive start to the new school year. My name is Andrew Holmgren and I am a current Ph.D. student at the University of New Orleans in the Counselor Education department. I am currently working on the proposal for my dissertation research which will be looking at factors that influence parent involvement in their child's community mental health treatment. After looking through various models, I believe that the Parent Involvement Method fits well with many of the factors experienced in this setting. My project aims to send a modified version of the Parent Involvement Project Questionnaire to therapists providing community mental health counseling to children and adolescents in New Orleans as well as a copy to the parents of these children. These modifications will assist in translating the PIPQ from a school-engagement survey to a counseling engagement survey through substitutions of terms such as "school" to "session" or "counseling", "teacher" to "therapist", and "homework" to "homework between sessions." I have looked through multiple sources and have been unable to find contact information for anyone currently monitoring the Parent Involvement Project to acquire permission to use the PIPQ. I was wondering if you were providing this permission or if you happened to know who I could contact in order to begin moving forward in this process? I would be happy to provide further details on my

1

project if necessary and any assistance would be greatly appreciated!

Sincerely,

Andrew Holmgren
andrew.holmgren27@gmail.com
aqholmgr@uno.edu
(615) 557-3993

NOTICE: This message, including all attachments transmitted with it, is intended solely for the use of the Addressee(s) and may contain information that is PRIVILEGED, CONFIDENTIAL, and/or EXEMPT FROM DISCLOSURE under applicable law. If you are not the intended recipient, you are hereby notified that any disclosure, copying, distribution, or use of the information contained herein is STRICTLY PROHIBITED. If you received this communication in error, please destroy all copies of the message, whether in electronic or hard copy format, as well as attachments and immediately contact the sender by replying to this email or contact the sender at the telephone numbers listed above. Thank you!


Appendix C

The Family-School Partnership Lab Statement of Use

4/28/23, 2:47 PM

The Family-School Partnership Lab > Statement of Use

The Wayback Machine - <http://web.archive.org/web/20141011164600/http://www.vanderbilt.edu/peabody/family-school/s...>

-  [Home](#)
-  [Papers](#)
-  [Scale](#)
-  [Descriptions](#)
-  [Current Research](#)
-  [Links](#)
-  [Model](#)
-  [Lab Members](#)

The Family-School Partnership Lab

Statement of Use

We thank you for your interest in our research. On behalf of Kathy Hoover-Dempsey and Howard Sandler, you have permission to use and/or modify any of these scales. We ask that you cite the following:

Hoover-Dempsey, K.V., & Sandler, H.M. (2005). *Final Performance Report for OERI Grant # R305T010673: The Social Context of Parental Involvement: A Path to Enhanced Achievement*.

Presented to Project Monitor, Institute of Education Sciences, U.S Department of Education, March 22, 2005. ([click here to view](#)).

If you use any of the scales at Level 1 in the model-based graphic (including [Parental Role Construction](#) , [Parental Efficacy](#) , [General School Invitations](#) , [Specific School Invitations](#) , [Specific Child Invitations](#) , [Time and Energy](#) , [Knowledge and Skills](#)), please cite also:

Walker, J. M., Wilkins, A. S., Dallaire, J., Sandler, H. M., & HooverDempsey, K. V. (2005). Parental involvement: Model revision through scale development. *Elementary School Journal*, 106(2); 85-104.

[\[click here to view pdf\]](#)

If you use the [Parent Efficacy for Helping Children Succeed in School](#), please cite also

Hoover-Dempsey, K. V., Bassler, O. C., & Brissie, J. S. (1992). Explorations in parent-school relations. *Journal of Educational Research*, 85 (5), 287-294.

[\[click here to view pdf\]](#)

If you use either the [Teacher Self-Efficacy for Teaching](#) scale or the [Teacher Perceptions of Parent Efficacy for Helping Children Succeed in School](#) scale, please also cite:

Hoover-Dempsey, K. V., Bassler, O. C., & Brissie, J. S. (1992). Explorations in parent-school relations. *Journal of Educational Research*, 85 (5), 287-294. [\[click here to view pdf\]](#)

Hoover-Dempsey, K.V., Walker, J.M.T., Jones, K.P., & Reed, R.P. (2002). Teachers Involving Parents (TIP): An in-service teacher education program for enhancing parental involvement. *Teaching and Teacher Education*, 18 (7), 843-467.
[\[click here to view .doc\]](#)

We wish you all the best with your research and encourage you to send us your findings.

The Family-School Partnership Lab is part of the [Psychology and Human Development Department, Peabody College, Vanderbilt University](#).

web.archive.org/web/20141011164600/http://www.vanderbilt.edu/peabody/family-school/scale_descriptions/use_statement.html

Appendix D

Clinical Revision of the Hoover-Dempsey and Sandler Model of Parental Involvement

Level 5

Treatment Outcomes



Level 4

Client Attributes Conducive to Achievement			
Therapeutic Self-Efficacy	Intrinsic Motivation	Self-Regulatory Strategy Use	Therapeutic Relationship



Level 3

Mediated by Client Perception of Caregiver Mechanisms			
Perception of Encouragement	Perception of Modeling	Perception of Reinforcement	Perception of Instruction



Level 2

Caregiver Mechanisms of Involvement			
Encouragement	Modeling	Reinforcement	Instruction



Caregiver Involvement Forms			
Values, goals, etc.	Home Involvement	Agency Communication	Session Involvement



Level 1

Personal Motivation		Invitations			Life Context		
Caregiver Role Construction	Caregiver Efficacy	General Invitations from Agency	Specific Invitations from Clinician	Specific Invitations from Client	Knowledge and Skills	Time and Energy	Family Culture

Appendix E

Revised Model the Hoover-Dempsey and Sandler Model of Parental Involvement

The Model

The Hoover-Dempsey & Sandler Model of Parental Involvement

Level 5

Student Achievement



Level 4

Student Attributes Conducive to Achievement			
Academic Self-Efficacy	Intrinsic Motivation to Learn	Self-Regulatory Strategy Use	Social Self-Efficacy Teachers



Level 3

Mediated by Child Perception of Parent Mechanisms			
Encouragement	Modeling	Reinforcement	Instruction



Level 2

Parent Mechanisms of Involvement			
Encouragement	Modeling	Reinforcement	Instruction



Parent Involvement Forms			
Values, goals, etc.	Home Involvement	School Communication	School Involvement



Level 1

Personal Motivation		Invitations			Life Context		
Parental Role Construction	Parental Efficacy	General School Invitations	Specific School Invitations	Specific Child Invitations	Knowledge and Skills	Time and Energy	Family Culture

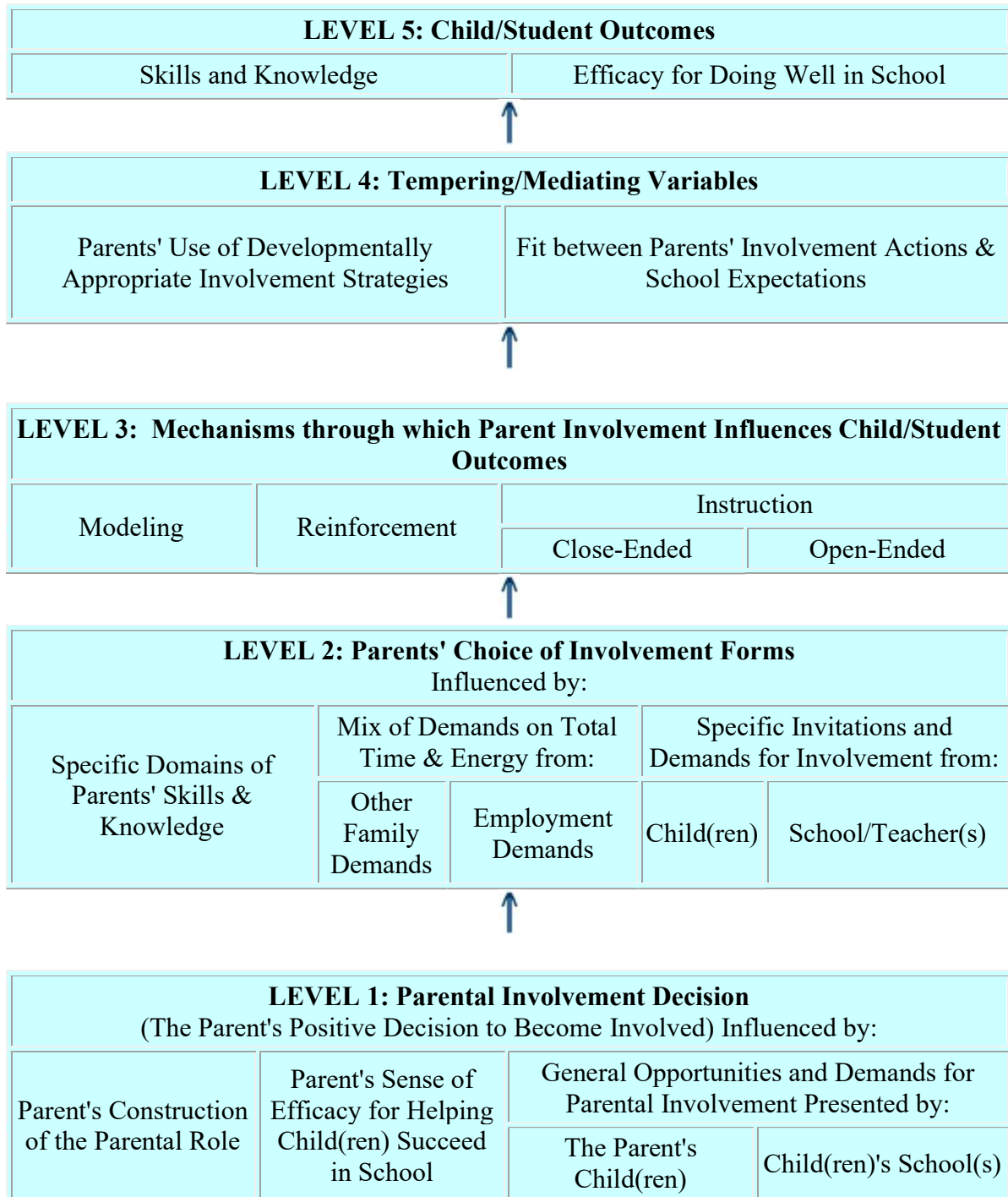
Adapted from Hoover-Dempsey & Sandler, 1995; 2005.

Appendix F

Original Model the Hoover-Dempsey & Sandler Model of Parental Involvement

The Model

The Hoover-Dempsey & Sandler (1995, 1997) Model of Parental Involvement



Appendix G

Alterations to PIPQ Parent

PIP Parent Questionnaire Study 4

People have different feelings about ~~school~~ **therapy**. Please circle the number on each line below that best describes your feelings about your ~~school experiences~~ **experiences in therapy IF AND WHEN YOU WERE A STUDENT CLIENT**.

My ~~school~~ **therapy**: disliked/liked
1 2 3 4 5 6

My ~~teachers~~ **therapist**: were mean/were nice
1 2 3 4 5 6

My ~~teachers~~ **therapist**: ignored/cared about me
1 2 3 4 5 6

My ~~school~~ **therapy** experience: bad/good
1 2 3 4 5 6

I felt like: an outsider/I belonged
1 2 3 4 5 6

My overall experience: failure/success
1 2 3 4 5 6

Please indicate how much you AGREE or DISAGREE with each of the following statements. Please think about the current ~~school year~~ **year in therapy** as you consider each statement

Disagree very strongly Disagree Disagree just a little Agree just a little Agree Agree very strongly
1 2 3 4 5 6

I know how to help my child do well in ~~school~~ **their therapy**
I don't know if I'm getting through to my child
I don't know how to help my child make good ~~grades in school~~ **progress in therapy**
I feel successful about my efforts to help my child learn **new skills**
I don't know how to help my child learn **new skills**

Please indicate how much you AGREE or DISAGREE with each of the following statements. Please think about the current ~~school year~~ **year in therapy** as you consider each statement.

Disagree very strongly Disagree Disagree just a little Agree just a little Agree Agree very strongly
1 2 3 4 5 6

~~Teachers~~ **Staff** at this ~~school~~ **agency** are interested and cooperative when they discuss my child
I feel welcome at this ~~school~~ **agency**

Please indicate HOW OFTEN the following have happened SINCE THE BEGINNING OF THIS ~~SCHOOL YEAR~~ **YEAR IN THERAPY**?

Never 1 or 2 times this year 4 or 5 times this year Once a week A few times a week Daily
1 2 3 4 5 6

My child's ~~teacher~~ **therapist** asked me or expected me to help my child with **therapy** homework
My child's ~~teacher~~ **therapist** asked me to talk with my child about the ~~school day~~ **therapy session**
My child's ~~teacher~~ **therapist** asked me to attend a ~~special event at school~~ **therapy sessions**
My child's ~~teacher~~ **therapist** asked me to help out ~~at the school~~ **in therapy**
My child's ~~teacher~~ **therapist** contacted me (for example, sent a note, phoned, e-mailed)

Parents have many different beliefs about their level of responsibility in their children's ~~education~~ **therapy**. Please respond to the following statement by indicating the degree to which you believe you are responsible for the following

Disagree very strongly Disagree Disagree just a little Agree just a little Agree Agree very strongly
1 2 3 4 5 6

I believe it's my responsibility to...
Volunteer ~~at the school~~ **to participate in sessions**
Communicate with my child's ~~teacher~~ **therapist** regularly
Help my child with **therapeutic** homework
Make sure the school has what it needs **Provide a space for therapy**

Support decisions made by the ~~teacher~~ therapist
Stay on top of things at ~~school~~ happening in session
Explain tough assignments ~~topics~~ to my child
Talk with other parents from my child's school ~~Talk with other parents about therapy~~
Make the ~~school~~ sessions better
Talk with my child about ~~the school day~~ their sessions

Dear Parent, Please indicate how much you AGREE or DISAGREE with each of the following statements. Please think about THE CURRENT SCHOOL YEAR ~~YEAR IN THERAPY~~ as you consider each statement

Disagree very strongly Disagree Disagree just a little Agree just a little Agree Agree very strongly
123456

I know about ~~special events at school~~ additional resources and services at the agency
I have enough time and energy to help out at ~~my child's school~~ with my child's therapy
I know enough about the subjects of my child's ~~therapeutic~~ homework to help him or her
I have enough time and energy to communicate effectively with my child's ~~teacher~~ therapist
I have enough time and energy to attend special events at school
I know how to supervise my child's ~~therapeutic~~ homework
I know about ~~volunteering opportunities at my child's school~~ ways to participate in sessions
I know how to explain things to my child about his or her ~~therapeutic~~ homework
I have the skills to help out ~~in~~ at my child's ~~school~~ sessions
I have enough time and energy to supervise my child's ~~therapeutic~~ homework

Parents and families do many different things when they are involved in their children's ~~education~~ therapy. We would like to know how often you have done the following SINCE THE BEGINNING OF THE SCHOOL YEAR ~~THIS YEAR IN THERAPY~~
Someone in this family...

Never 1 or 2 times this year 4 or 5 times this year Once a week A few times a week Daily
123456

Talks with this child about ~~the school day~~ their sessions
Supervises this child's ~~therapeutic~~ homework
Helps out at ~~this child's school~~ in this child's therapy
~~Attends special events at school~~ Utilize additional services and resources at the agency
Helps this child ~~study for tests~~ prepare for sessions
Volunteers to ~~go on class field trips~~ participate in sessions
Attends ~~PTA meetings~~ treatment plan meetings
Practices ~~spelling, math, or other~~ coping skills with this child
Reads with this child
Goes to the school's open-house

Please indicate how much you AGREE or DISAGREE with each of the following statements. Please think about *the current school year* ~~year in therapy~~ as you consider each statement.

Disagree very strongly Disagree Disagree just a little Agree just a little Agree Agree very strongly
123456

Parent ~~activities~~ meetings are scheduled at ~~this school~~ so that I can attend
This ~~school~~ agency lets me know about meetings and special ~~school~~ events additional services and resources
This ~~school's~~ agency's staff contacts me promptly about any problems involving my child
The ~~teachers~~ therapists at this ~~school~~ agency keep me informed about my child's progress in ~~school~~ therapy

Parents and families do many different things when they help their children with ~~schoolwork~~ therapeutic homework. We would like to know how true the following things are *for you and your family* when you help your child with ~~schoolwork~~ therapeutic homework. Please think about the *current current school year* ~~year in counseling~~ as you read and respond to each item.

We encourage this child...

Not at all true A little bit true Somewhat true Often true Mostly true Completely true
123456

When he or she doesn't feel like doing ~~schoolwork~~ therapeutic homework
When he or she has trouble organizing ~~schoolwork~~ therapeutic homework
To try new ways to do ~~schoolwork~~ therapeutic homework when he or she is having a hard time
To be aware of how he or she is doing with ~~schoolwork~~ therapeutic homework
To develop an interest in ~~schoolwork~~ therapeutic homework
To look for more information about ~~school~~ therapy subjects
To stick with a problem until he or she solves it
To believe that he or she can do well
To believe that he or she can learn new things
To ask other people for help when a problem is hard

To follow the ~~teacher's~~ **therapist's** directions
To explain what he or she thinks to the ~~teacher~~ **therapist**
When he or she has trouble doing ~~schoolwork~~ **therapeutic homework**

Parents and families do many different things when they help their children with ~~schoolwork~~ **therapeutic homework**. We would like to know how true the following things are *for you and your family* when you help your child with ~~schoolwork~~ **therapeutic homework**. Please think about the *current school year year in therapy* as you read and respond to each item.

We show this child that we

Not at all true A little bit true Somewhat true Often true Mostly true Completely true
123456

Like to learn new things
Know how to solve problems
Enjoy figuring things out
Do not give up when things get hard
Ask others for help when a problem is hard to solve
Can explain what we think to others
Can learn new things
Want to learn as much as possible
Like to solve problems
Try different ways to solve a problem when things get hard

We show this child that we like it when he or she

Not at all true A little bit true Somewhat true Often true Mostly true Completely true
123456

Wants to learn new things
Tries to learn as much as possible
Has a good attitude about doing his or her ~~schoolwork~~ **therapeutic homework**
Keeps working on ~~homework~~ **therapeutic homework** even when he or she doesn't feel like it
Ask the ~~teacher~~ **therapist** for help
Explains what he or she thinks to the ~~teacher~~ **therapist**
Explains to us what he or she thinks about ~~school~~ **therapy**
Works hard on ~~homework~~ **therapeutic homework**
Understands how to solve problems
Sticks with a problem until he or she solves it
Organizes his or her ~~schoolwork~~ **therapeutic homework**
Checks his or her ~~work~~ **progress**
Finds new ways to do ~~schoolwork~~ **therapeutic homework** when he or she gets stuck

Dear Parent, please indicate HOW OFTEN the following have happened SINCE THE BEGINNING OF THIS SCHOOL YEAR ~~YEAR IN THERAPY?~~

Never 1 or 2 times this year 4 or 5 times this year Once a week A few times a week Daily
123456

My child asked me to help explain something about his or her ~~homework~~ **therapeutic homework**
My child asked me to supervise his or her ~~homework~~ **therapeutic homework**
My child asked me to attend a ~~special event at school~~ **sessions**
My child asked me to help out ~~at the school~~ **in sessions**
My child asked me to talk with his or her ~~teacher~~ **therapist**

Parents and families do many different things when they help their children with ~~schoolwork~~ **therapeutic homework**. We would like to know how true the following things are *for you and your family* when you help your child with ~~schoolwork~~ **therapeutic homework**. Please think about the *current school year year in therapy* as you read and respond to each item.

We teach this child

Not at all true A little bit true Somewhat true Often true Mostly true Completely true
123456

To go at his or her own pace while doing ~~schoolwork~~ **therapeutic homework**
To take a break ~~from his or her work~~ when he or she gets frustrated
How to check ~~homework~~ **therapeutic homework** as he or she goes along
How to get along with others ~~in his or her class~~
To follow the ~~teacher's~~ **therapist's** directions
Ways to make his or her **therapeutic** homework fun
How to find out more about things that interest him or her
To try the problems that help him or her learn the most
To have a good attitude about his or her **therapeutic** homework

To keep trying when he or she gets stuck
 To stick with his or her **therapeutic** homework until he or she finishes it
 To work hard
 To talk with the ~~teacher~~ **therapist** when he or she has questions
 To ask questions when he or she doesn't understand something
 To make sure he or she understands one ~~part~~ **question** before going on to the next

We understand that the following information may be of a sensitive nature. We ask for this information because it helps us describe the range of families in our total group. Please bubble the response for each item that best describes you and your family.

1. Your Gender: Female Male
2. Please choose the job that best describes yours
 (please choose only **one**):
 Unemployed, retired, student, disabled
 Labor, custodial, maintenance
 Warehouse, factory worker, construction
 Driver (taxi, truck, bus, delivery)
 Food services, restaurant
 Skilled Craftsman (plumber, electrician, etc)
 Retail sales, clerical, customer service
 Service technician (appliances, computers, cars)
 Bookkeeping, accounting, related administrative
 Singer/musician/writer/artist
 Real Estate/Insurance Sales
 Social services, public service, related governmental
 Teacher, nurse
 Professional, executive
3. On average, how many hours **per week** do you work?
 0-5 21-40
 6-20 41 or more
4. Your level of education
 (please check highest level completed):
 less than high school bachelor's degree
 high school or GED some graduate work
 some college, 2-year master's degree college or
 vocational doctoral degree
5. Please choose the job that best describes
 your **spouse or partner's**:
 No Spouse or Partner
 Unemployed, retired, student, disabled
 Labor, custodial, maintenance
6. Your spouse or partner's level of education
 (please check highest level completed):
 less than high school some graduate work
 high school or GED bachelor's degree
 some college, 2-year master's degree
 college or vocational doctoral degree
7. On average, how many hours **per week**
 does your spouse or partner work?
 0-5 21-40
 6-20 41 or more
8. Family income per year (check one):
 less than \$5,000
 \$5,100-\$10,000
 \$10,001-\$20,000
 \$20,001-\$30,000
 \$30,001-\$40,000
 \$40,001-\$50,000
 over \$50,001
9. How many children (under the age of 19)
 live in your home?
 1 4
 2 5
 3 6 or more
10. Your Race/Ethnicity:
 Asian/Asian-American
 Black/African-American
 Hispanic/Hispanic-American
 White/Caucasian

Appendix H

Alterations to PIPQ Child

PIP Student Questionnaire Study 4

I am ~~in the~~ ____ grade ~~years old~~

I am a ___ Boy ___ Girl

Dear Student, Families do many different things when they help children with ~~school~~ therapy. Please think about how your family helps you with ~~school~~ therapy and fill in the circle that matches what is most true for them. Thank you!

The person in my family who usually helps me with my ~~therapeutic~~ homework

Not true A little true Pretty true Very true

1 2 3 4

Likes to learn new things

Knows how to solve problems

Doesn't give up when things get hard

Wants to learn as much as possible

Askes other people for help when a problem is hard to solve

Likes to solve problems

Enjoys figuring things out

Can explain what he or she thinks to other people

Tries a different way if he or she has trouble solving a problem

Can learn new things

Dear Student, Families do many different things when they help children with ~~school~~ therapy. Please think about how your family helps you with ~~school~~ therapy and fill in the circle that matches what is most true for them. Thank you!

The person in my family who usually helps me with my ~~therapeutic~~ homework teaches me

Not true A little true Pretty true Very true

1 2 3 4

Ways to make my ~~therapeutic~~ homework fun

To keep trying when I get stuck

To ask questions when I don't understand something

How to find out more about things that interest me

To make sure I understand one part before I go on to the next

To take a break ~~from my work~~ when I get frustrated

How to ~~check my homework~~ ~~my progress in therapy~~ as I go along

How to get along with others ~~in my class~~

To try the problems that help me learn the most

To follow ~~teacher~~ ~~therapist~~ directions

To go at my own pace while doing my ~~therapeutic~~ homework

To talk with the ~~teacher~~ ~~therapist~~ when I have questions

To stick with my ~~therapeutic~~ homework until I get it all done

To work hard

To have a good attitude about my ~~therapeutic~~ homework

The person in my family who usually helps me with my ~~therapeutic~~ homework encourages me

Not true A little true Pretty true Very true

1 2 3 4

When I don't feel like doing my ~~schoolwork~~ ~~therapeutic homework~~

When I have trouble organizing my ~~schoolwork~~ ~~therapeutic homework~~

When I have trouble doing my ~~schoolwork~~ ~~therapeutic homework~~

To be aware of how I'm doing my ~~schoolwork~~ ~~therapeutic homework~~

To try new ways to do ~~schoolwork~~ ~~therapeutic homework~~ when I'm having a hard time

To look for more information about ~~school~~ ~~therapy~~ subjects

To develop an interest in ~~schoolwork~~ ~~therapeutic homework~~

To believe that I can learn new things

To believe that I can do well in ~~school~~ ~~therapy~~

To ask the ~~teacher~~ ~~therapist~~ for help when a problem is hard to solve

To follow the ~~teacher's~~ ~~therapist's~~ directions

To explain what I think to the ~~teacher~~ ~~therapist~~

Dear Student, Families do many different things when they help children with ~~school~~ **therapy**. Please think about how your family helps you with ~~school~~ **therapy** and fill in the circle that matches what is most true for them. Thank you!

The person in my family who usually helps me with my **therapeutic** homework shows me that he or she likes it when I

Not true A little true Pretty true Very true
1234

Stick with a problem until it gets solved

Check my work

Understand how to solve problems

As the ~~teacher~~ **therapist** for help

Try to learn as much as possible

Organize my schoolwork

Have a good attitude about doing my **therapeutic** homework

Work hard on my **therapeutic** homework

Explain what I think to the ~~teacher~~ **therapist**

Want to learn new things

Find new ways to do my **therapeutic** homework when I get stuck

Explain what I think about ~~school~~ **therapy** to him or her

Keep working on my **therapeutic** homework even when I don't feel like it

Dear Student, Students have many different ideas about ~~school~~ **therapy** and **therapeutic** homework. Please tell us how true each of the following ideas are for you. There are no right or wrong answers. The right answer is the answer that is most true for you.

Your parents and ~~teachers~~ **therapist** will NOT see what you say. Thank you!

Not true A little true Pretty true Very true

1234

~~I can do even the hardest homework~~ **can handle even the hardest situation** if I try

I can learn the things taught in ~~school~~ **therapy**

I can figure out difficult **therapeutic** homework

I want to understand how to solve problems

I like to look for more information about ~~school~~ **therapy** subjects

I try to find a place that makes it easier to do my **therapeutic** homework

I ask myself questions as I go along to make sure my **therapeutic** homework makes sense to me

I try to figure out the hard parts on my own

I go back over things I don't understand

I can get along with ~~most of my teachers~~ **my therapist most of the time**

I can go and talk with ~~most of my teachers~~ **my therapist**

I can get ~~most of my teachers~~ **my therapist** to help me if I have problems with ~~other students~~

I can explain what I think to ~~most of my teachers~~ **my therapist**

I ask for help from my parents when I have trouble understanding something

I ask ~~teachers~~ **my therapist** to tell me how well I'm doing in ~~class~~ **therapy**

I want to learn new things

I ask for help from ~~most of my teachers~~ **my therapist** when I have trouble understanding something

Appendix I
Simple Regression Tables

Table 27

Simple Linear Regression: Caregiver Valence Towards Therapy Effect on Caregiver Level 2 Subscales

Subscale	Original											Pooled				
	<i>F</i> (1,17)	<i>p</i>	<i>R</i> ²	<i>f</i> ²	<i>R</i> ² _{Adj}	<i>f</i> ²	β	95% CI		<i>t</i>	<i>p</i>	β	95% CI		<i>t</i>	<i>p</i>
								LL	UL				LL	UL		
Constant	3.79	.068	.18	.22	.13	.15	1.86	1.61	2.11	15.71	<.001	1.96	1.78	2.14	21.16	<.001
CIACS	3.79	.068	.18	.22	.13	.15	.07	-.01	.15	1.95	.068	.07	.01	.12	2.20	.028
Constant	3.54	.077	.17	.20	.12	.14	1.66	1.29	2.04	9.27	<.001	1.80	1.51	2.10	11.98	<.001
CIAAG	3.54	.077	.17	.20	.12	.14	.11	-.01	.23	1.88	.077	.09	.001	.19	1.98	.048
Constant	1.20	.288	.07	.08	.01	.01	3.81	3.29	4.32	15.64	<.001	4.03	3.60	4.46	18.56	<.001
REB	1.20	.288	.07	.08	.01	.01	.08	-.08	.25	1.10	.288	.09	-.04	.23	1.35	.179
Constant	1.66	.215	.09	.10	.04	.04	4.20	3.8	4.61	21.98	<.001	4.20	3.83	4.58	22.01	<.001
RMB	1.66	.215	.09	.10	.04	.04	.08	-.05	.21	1.29	.215	.09	-.03	.21	1.48	.139
Constant	.32	.577	.02	.02	.04	.04	4.30	3.82	4.78	18.87	<.001	4.30	3.85	4.75	18.87	<.001
RRB	.32	.577	.02	.02	.04	.04	.04	-.11	.19	.57	.577	.04	-.10	.18	.57	.570

Constant	.23	.641	.01	.01	.05	.05	4.37	3.74	5.00	14.62	<.001	4.38	3.85	4.91	16.13	<.001
RIB	.23	.641	.01	0.01	.05	.05	-.05	-.24	.15	-.48	.641	-.01	-.18	.16	-.09	.931

Note: $n = 19$

CI= confidence interval; UL= upper limit; LL= lower limit

CIACS= Choice of Involvement Activities: Client-Specific; CIAAG= Choice of Involvement Activities: Agency-General; REB= Report of Encouragement Behaviors; RMB= Report of Modeling Behaviors; RRB= Report of Reinforcement Behaviors; RIB= Report of Instruction Behaviors

Range: 1-6

Valence Towards Therapy completed by the 9 caregivers with prior therapy experience

* $p < .05$

Table 28*Simple Linear Regression: Caregiver Self-Efficacy Effect on Caregiver Level 2 Subscales*

Subscale	Original											Pooled					
	<i>F</i> (1,17)	<i>p</i>	<i>R</i> ²	<i>f</i> ²	<i>R</i> ² _{Adj}	<i>f</i> ²	β	95% CI		<i>t</i>	<i>p</i>	β	95% CI		<i>t</i>	<i>p</i>	
								<i>LL</i>	<i>UL</i>				<i>LL</i>	<i>UL</i>			
Constant	.02	.886	.001	.00	-.06	-.06	2.12	.46	3.78	2.70	.015	2.58	1.36	3.81	4.14	<.001	
CIACS	.02	.886	.001	.00	-.06	-.06	-.03	-.53	.46	-.15	.886	-.15	-.51	.22	-.79	.428	
Constant	.004	.948	.000	.00	-.06	-.06	1.80	-.70	4.31	1.52	.146	3.23	1.32	5.14	3.32	<.001	
CIAAG	.004	.948	.000	.00	-.06	-.06	.02	-.72	.76	.07	.948	-.37	-.93	.20	-1.28	.202	
Constant	.82	.378	.05	.05	-.01	-.01	5.31	2.19	8.42	3.59	.002	4.60	1.92	7.28	3.36	<.001	
REB	.82	.378	.05	.05	-.01	-.01	-.40	-1.32	.53	-.91	.378	-.11	-.91	.68	-.28	.780	
Constant	.63	.437	.04	.04	-.02	-.02	5.30	2.80	7.79	4.48	<.001	5.37	3.03	7.72	4.50	<.001	
RMB	.63	.437	.04	.04	-.02	-.02	-.28	-1.02	.46	-.80	.437	-.30	-.99	.40	-.83	.404	
Constant	.01	.908	.001	.00	-.06	-.06	4.55	1.63	7.46	3.29	.004	4.55	1.84	7.25	3.29	<.001	
RRB	.01	.908	.001	.00	-.06	-.06	-.05	-.92	.82	-.12	.908	-.05	-.85	.75	-.12	.906	
Constant	.69	.418	.04	.04	-.02	-.02	2.82	-.92	6.55	1.59	.130	3.09	-.05	6.23	1.93	.053	
RIB	.69	.418	.04	.04	-.02	-.02	.44	-.67	1.54	.83	.418	.38	-.55	1.31	.80	.424	

Note: n = 19

CI= confidence interval; UL= upper limit; LL= lower limit

CIACS= Choice of Involvement Activities: Client-Specific; CIAAG= Choice of Involvement Activities: Agency-General; REB= Report of Encouragement Behaviors; RMB= Report of Modeling Behaviors; RRB= Report of Reinforcement Behaviors; RIB= Report of Instruction Behaviors

Range: 1-6

* $p < .05$

Table 29*Simple Linear Regression: Caregiver Perceptions of General Invitations from the Agency Effect on Caregiver Level 2 Subscales*

Subscale	Original											Pooled					
	<i>F</i> (1,17)	<i>p</i>	<i>R</i> ²	<i>f</i> ²	<i>R</i> ² _{Adj}	<i>f</i> ²	β	95% CI		<i>t</i>	<i>p</i>	β	95% CI		<i>t</i>	<i>p</i>	
								<i>LL</i>	<i>UL</i>				<i>LL</i>	<i>UL</i>			
Constant	7.79	.013	.31	.45	.27	.37	.73	-.25	1.71	1.56	.136	.88	.07	1.68	2.14	.032	
CIACS	7.79	.013	.31	.45	.27	.37	.30	.07	.52	2.79	.013	.28	.10	.46	2.99	.003	
Constant	3.63	.074	.18	.22	.13	.15	.44	-1.19	2.06	.57	.576	-.26	-1.41	.89	-.45	.655	
CIAAG	3.63	.074	.18	.22	.13	.15	.34	-.04	.71	1.91	.074	.52	.26	.78	3.89	<.001	
Constant	12.15	.003	.42	.72	.38	.61	1.15	-.60	2.89	1.39	.184	1.12	-.45	2.69	1.40	.161	
REB	12.15	.003	.42	.72	.38	.61	.66	.26	1.06	3.49	.003	.71	.35	1.06	3.92	<.001	
Constant	6.72	.019	.28	.39	.24	.32	2.50	.97	4.04	3.44	.003	1.97	.42	3.53	2.49	.013	
RMB	6.72	.019	.28	.39	.24	.32	.43	.08	.79	2.59	.019	.55	.20	.90	3.08	.002	
Constant	3.31	.087	.16	.19	.11	.12	2.77	.86	4.67	3.06	.007	2.49	.51	4.48	2.46	.014	
RRB	3.31	.087	.16	.19	.11	.12	.38	-.06	.82	1.82	.087	.43	-.02	.88	1.89	.058	
Constant	1.64	.217	.09	.10	.03	.03	2.72	.12	5.32	2.20	.042	3.04	.54	5.54	2.38	.017	
RIB	1.64	.217	.09	.10	.03	.03	.36	-.24	.96	1.28	.217	.30	-.26	.87	1.05	.292	

Note: n = 19

CI= confidence interval; UL= upper limit; LL= lower limit

CIACS= Choice of Involvement Activities: Client-Specific; CIAAG= Choice of Involvement Activities: Agency-General; REB= Report of Encouragement Behaviors; RMB= Report of Modeling Behaviors; RRB= Report of Reinforcement Behaviors; RIB= Report of Instruction Behaviors

Range: 1-6

* $p < .05$

Table 30*Simple Linear Regression: Caregiver Perceptions of Specific Invitations from the Clinician Effect on Caregiver Level 2 Subscales*

Subscale	Original											Pooled				
	<i>F</i> (1,17)	<i>p</i>	<i>R</i> ²	<i>f</i> ²	<i>R</i> ² _{Adj}	<i>f</i> ²	β	95% CI		<i>t</i>	<i>p</i>	β	95% CI		<i>t</i>	<i>p</i>
								<i>LL</i>	<i>UL</i>				<i>LL</i>	<i>UL</i>		
Constant	2.39	.140	.12	.14	.07	.08	1.43	.61	2.24	3.70	.002	1.35	.72	1.98	4.20	<.001
CIACS	2.39	.140	.12	.14	.07	.08	.15	-.05	.35	1.55	.140	.19	.03	.34	2.36	.018
Constant	6.85	.018	.29	.41	.25	.33	.55	-.56	1.66	1.04	.312	.64	-.32	1.59	1.31	.190
CIAAG	6.85	.018	.29	.41	.25	.33	.34	.07	.62	2.62	.018	.34	.11	.57	2.86	.004
Constant	4.09	.059	.19	.23	.15	.18	2.58	1.08	4.09	3.62	.002	3.42	1.89	4.95	4.38	<.001
REB	4.09	.059	.19	.23	.15	.18	.36	-.02	.73	2.02	.059	.20	-.17	.57	1.05	.295
Constant	4.44	.050	.21	.27	.16	.19	3.21	2.03	4.40	5.71	<.001	3.07	1.82	4.31	4.83	<.001
RMB	4.44	.050	.21	.27	.16	.19	.30	0.00	.59	2.11	.050	.33	.03	.64	2.12	.034
Constant	2.37	.142	.12	.14	.07	.08	3.37	1.94	4.80	4.96	<.001	3.26	1.76	4.75	4.28	<.001
RRB	2.37	.142	.12	.14	.07	.08	.26	-.10	.62	1.54	.142	.28	-.08	.65	1.52	.129
Constant	.31	.586	.02	.02	-.04	-.04	3.77	1.79	5.75	4.01	<.001	3.66	1.82	5.51	3.89	<.001
RIB	.31	.586	.02	.02	-.04	-.04	.13	-.36	.62	.56	.586	.18	-.28	.63	.76	.448

Note: n = 19

CI= confidence interval; UL= upper limit; LL= lower limit

CIACS= Choice of Involvement Activities: Client-Specific; CIAAG= Choice of Involvement Activities: Agency-General; REB= Report of Encouragement Behaviors; RMB= Report of Modeling Behaviors; RRB= Report of Reinforcement Behaviors; RIB= Report of Instruction Behaviors

Range: 1-6

* $p < .05$

Table 31*Simple Linear Regression: Caregiver Role Activity Beliefs Effect on Caregiver Level 2 Subscales*

Subscale	Original											Pooled					
	<i>F</i> (1,17)	<i>p</i>	<i>R</i> ²	<i>f</i> ²	<i>R</i> ² _{Adj}	<i>f</i> ²	β	95% CI		<i>t</i>	<i>p</i>	β	95% CI		<i>t</i>	<i>p</i>	
								<i>LL</i>	<i>UL</i>				<i>LL</i>	<i>UL</i>			
Constant	10.08	.006	.37	.59	.34	.52	.48	-.55	1.51	.99	.337	.85	-.22	1.91	1.56	.119	
CIACS	10.08	.006	.37	.59	.34	.52	.34	.11	.56	3.18	.006	.27	.04	.50	2.33	.020	
Constant	15.13	.001	.47	.89	.44	.79	-.71	-2.13	.72	-1.05	.310	.02	-1.68	1.70	.02	.986	
CIAAG	15.13	.001	.47	.89	.44	.79	.57	.26	.88	3.89	.001	.43	.07	.79	2.32	.020	
Constant	9.01	.008	.35	.54	.31	.45	1.15	-.87	3.17	1.20	.247	.75	-1.33	2.83	.71	.479	
REB	9.01	.008	.35	.54	.31	.45	.63	.19	1.07	3.00	.008	.75	.30	1.19	3.30	<.001	
Constant	11.66	.003	.41	.69	.37	.59	1.92	.39	3.45	2.65	.017	1.61	-.35	3.57	1.61	.107	
RMB	11.66	.003	.41	.69	.37	.59	.54	.21	.87	3.42	.003	.60	.18	1.02	2.79	.005	
Constant	10.38	.005	.38	.61	.34	.52	1.68	-.12	3.47	1.97	.065	1.13	-1.06	3.31	1.01	.311	
RRB	10.38	.005	.38	.61	.34	.52	.60	.21	.99	3.22	.005	.70	.24	1.17	2.95	.003	
Constant	7.39	.015	.30	.43	.26	.35	1.11	-1.38	3.60	.94	.359	.59	-2.01	3.19	.44	.659	
RIB	7.39	.015	.30	.43	.26	.35	.70	.16	1.24	2.72	.015	.82	.26	1.37	2.87	.004	

Note: n = 19

CI= confidence interval; UL= upper limit; LL= lower limit

CIACS= Choice of Involvement Activities: Client-Specific; CIAAG= Choice of Involvement Activities: Agency-General; REB= Report of Encouragement Behaviors; RMB= Report of Modeling Behaviors; RRB= Report of Reinforcement Behaviors; RIB= Report of Instruction Behaviors

Range: 1-6

* $p < .05$

Table 32*Simple Linear Regression: Caregiver Perceptions of Personal Knowledge and Skills Effect on Caregiver Level 2 Subscales*

Subscale	Original											Pooled				
	<i>F</i> (1,17)	<i>p</i>	<i>R</i> ²	<i>f</i> ²	<i>R</i> ² _{Adj}	<i>f</i> ²	β	95% CI		<i>t</i>	<i>p</i>	β	95% CI		<i>t</i>	<i>p</i>
								<i>LL</i>	<i>UL</i>				<i>LL</i>	<i>UL</i>		
Constant	11.50	.003	.40	.67	.37	.59	.77	-.02	1.56	2.05	.056	1.01	.46	1.56	3.59	<.001
CIACS	11.50	.003	.40	.67	.37	.59	.30	.11	.48	3.39	.003	.26	.13	.39	3.97	<.001
Constant	9.40	.007	.36	.56	.32	.47	.13	-1.11	1.36	.21	.834	.53	-.45	1.49	1.06	.289
CIAAG	9.40	.007	.36	.56	.32	.47	.42	.13	.71	3.07	.007	.35	.13	.58	3.04	.002
Constant	12.37	.003	.42	.72	.39	.64	1.54	.05	3.04	2.18	.044	1.79	.63	2.95	3.02	.003
REB	12.37	.003	.42	.72	.39	.64	.58	.23	.93	3.52	.003	.58	.31	.85	4.20	<.001
Constant	5.83	.027	.26	.35	.21	.27	2.85	1.50	4.20	4.46	<.001	2.82	1.56	4.08	4.39	<.001
RMB	5.83	.027	.26	.35	.21	.27	.36	.05	.68	2.42	.027	.38	.08	.67	2.49	.013
Constant	30.17	<.001	.64	1.78	.62	.63	1.64	.56	2.72	3.21	.005	1.64	.64	2.64	3.21	.001
RRB	30.17	<.001	.64	1.78	.62	.63	.66	.41	.91	5.49	<.001	.66	.42	.89	5.49	<.001
Constant	3.25	.089	.16	.19	.11	.12	2.48	.33	4.63	2.43	.026	2.38	.67	4.10	2.72	.007
RIB	3.25	.089	.16	.19	.11	.12	.43	-.07	.93	1.80	.089	.47	.07	.88	2.31	.021

Note: n = 19

CI= confidence interval; UL= upper limit; LL= lower limit

CIACS= Choice of Involvement Activities: Client-Specific; CIAAG= Choice of Involvement Activities: Agency-General; REB= Report of Encouragement Behaviors; RMB= Report of Modeling Behaviors; RRB= Report of Reinforcement Behaviors; RIB= Report of Instruction Behaviors

Range: 1-6

* $p < .05$

Table 33*Simple Linear Regression: Caregiver Perceptions of Personal Time and Energy Effect on Caregiver Level 2 Subscales*

Subscale	Original											Pooled					
	<i>F</i> (1,17)	<i>p</i>	<i>R</i> ²	<i>f</i> ²	<i>R</i> ² _{Adj}	<i>f</i> ²	β	95% CI		<i>t</i>	<i>p</i>	β	95% CI		<i>t</i>	<i>p</i>	
								<i>LL</i>	<i>UL</i>				<i>LL</i>	<i>UL</i>			
Constant	15.63	.001	.48	.92	.45	.82	.59	-.18	1.36	1.61	.127	1.02	.34	1.70	2.95	.003	
CIACS	15.63	.001	.48	.92	.45	.82	.33	.15	.51	3.95	.001	.25	.09	.40	3.16	.002	
Constant	11.38	.004	.40	.67	.37	.59	-.08	-1.33	1.17	-.13	.898	.55	-.60	1.70	.93	.352	
CIAAG	11.38	.004	.40	.67	.37	.59	.46	.17	.74	3.37	.004	.33	.07	.60	2.51	.012	
Constant	13.09	.002	.44	.79	.40	.67	1.38	-.17	2.93	1.88	.078	1.20	.07	2.34	2.07	.038	
REB	13.09	.002	.44	.79	.40	.67	.61	.25	.96	3.62	.002	.70	.44	.95	5.29	<.001	
Constant	4.53	.048	.21	.27	.16	.19	2.92	1.47	4.38	4.24	<.001	2.94	1.45	4.43	3.86	<.001	
RMB	4.53	.048	.21	.27	.16	.19	.34	.003	.67	2.13	.048	.33	-.004	.67	1.94	.053	
Constant	18.91	<.001	.53	1.13	.50	1.00	1.77	.47	3.06	2.88	.010	1.68	.35	3.02	2.48	.013	
RRB	18.91	<.001	.53	1.13	.50	1.00	.61	.31	.91	4.35	<.001	.62	.32	.93	4.04	<.001	
Constant	4.29	.054	.20	.25	.15	.18	2.16	-.04	4.36	2.07	.054	2.11	.19	4.02	2.16	.031	
RIB	4.29	.054	.20	.25	.15	.18	.49	-.01	1.00	2.07	.054	.52	.09	.95	2.35	.019	

Note: n = 19

CI= confidence interval; UL= upper limit; LL= lower limit

CIACS= Choice of Involvement Activities: Client-Specific; CIAAG= Choice of Involvement Activities: Agency-General; REB= Report of Encouragement Behaviors; RMB= Report of Modeling Behaviors; RRB= Report of Reinforcement Behaviors; RIB= Report of Instruction Behaviors

Range: 1-6

* $p < .05$

Table 34*Simple Linear Regression: Caregiver Perceptions of Specific Invitations from the Client Effect on Caregiver Level 2 Subscales*

Subscale	Original											Pooled				
	<i>F</i> (1,17)	<i>p</i>	<i>R</i> ²	<i>f</i> ²	<i>R</i> ² _{Adj}	<i>f</i> ²	β	95% CI		<i>t</i>	<i>p</i>	β	95% CI		<i>t</i>	<i>p</i>
								LL	UL				LL	UL		
Constant	5.27	.035	.24	.32	.19	.23	1.19	.41	1.96	3.23	.005	1.42	.78	2.07	4.34	<.001
CIACS	5.27	.035	.24	.32	.19	.23	.20	.02	.39	2.30	.035	.17	.01	.32	2.13	.035
Constant	8.84	.009	.34	.52	.30	.43	.40	-.69	1.48	.77	.451	1.03	.06	2.00	2.07	.038
CIAAG	8.84	.009	.34	.52	.30	.43	.37	.11	.63	2.97	.009	.24	.01	.47	2.02	.043
Constant	7.49	.014	.31	.45	.27	.37	2.19	.77	3.61	3.25	.005	3.43	2.00	4.87	4.68	<.001
REB	7.49	.014	.31	.45	.27	.37	.45	.10	.79	2.74	.014	.19	-.15	.54	1.11	.269
Constant	3.49	.079	.17	.20	.12	.14	3.30	2.06	4.54	5.63	<.001	3.26	2.08	4.46	5.36	<.001
RMB	3.49	.079	.17	.20	.12	.14	.27	-.03	.57	1.87	.079	.28	-.01	.56	1.88	.060
Constant	5.35	.033	.24	.32	.20	.25	2.94	1.58	4.30	4.56	<.001	2.84	1.56	4.12	4.34	<.001
RRB	5.35	.033	.24	.32	.20	.25	.36	.03	.69	2.31	.033	.38	.07	.69	2.43	.015
Constant	4.76	.044	.22	.28	.17	.20	2.47	.66	4.27	2.89	.010	2.76	1.19	4.34	3.45	<.001
RIB	4.76	.044	.22	.28	.17	.20	.45	.02	.89	2.18	.044	.40	.02	.77	2.05	.041

Note: n = 19

CI= confidence interval; UL= upper limit; LL= lower limit

CIACS= Choice of Involvement Activities: Client-Specific; CIAAG= Choice of Involvement Activities: Agency-General; REB= Report of Encouragement Behaviors; RMB= Report of Modeling Behaviors; RRB= Report of Reinforcement Behaviors; RIB= Report of Instruction Behaviors

Range: 1-6

* $p < .05$

Table 35*Simple Linear Regression: Caregiver Valence Towards Therapy Effect on Client Level 3 Subscales*

Subscale	Original											Pooled				
	<i>F</i> (1,1)	<i>p</i>	<i>R</i> ²	<i>f</i> ²	<i>R</i> ² _{Adj}	<i>f</i> ²	β	95% CI		<i>t</i>	<i>p</i>	β	95% CI		<i>t</i>	<i>p</i>
								LL	UL				LL	UL		
Constant	96.33	.065	.99	99.00	.98	49.00	3.15	2.52	3.79	63	.010	3.15	3.05	3.25	63.00	<.001
RCMB	96.33	.065	.99	99.00	.98	49.00	.85	-.25	1.95	9.82	.065	.85	.68	1.02	9.82	<.001
Constant	.33	.667	.25	.33	-.50	-.33	2.93	2.09	3.78	44.00	.014	2.93	2.80	3.06	44.00	<.001
RCUIB	.33	.667	.25	.33	-.50	-.33	-.07	-1.53	1.40	-.58	.667	-.07	-.29	.16	-.58	.564
Constant	40.33	.099	.98	49.00	.95	19.00	2.88	2.35	3.40	69.00	.009	2.88	2.79	2.96	69.00	<.001
RCEB	40.33	.099	.98	49.00	.95	19.00	.46	-.46	1.38	6.35	.099	.46	.32	.60	6.35	<.001
Constant	1.7	.751	.15	.18	-.71	-.42	2.88	-.83	6.58	9.86	.064	2.88	2.30	3.45	9.86	<.001
RCURB	1.7	.751	.15	.18	-.71	-.42	-.21	-6.63	6.21	-.41	.751	-.21	-1.20	.78	-.41	.680

Note: Client (*n* = 3) Caregiver (*n* = 19)

CI= confidence interval; UL= upper limit; LL= lower limit

RCMB= Report of Caregiver Modeling Behaviors; RCUIB= Report of Caregiver Use of Instruction Behaviors; RCEB= Report of Caregiver Encouragement Behaviors; RCURB= Report of Caregiver Use of Reinforcement Behaviors

Range: 1-4

Valence Towards Therapy completed by the 9 caregivers with prior therapy experience

**p* < .05

Table 36*Simple Linear Regression: Caregiver Self-Efficacy Effect on Client Level 3 Subscales*

Subscale	Original											Pooled				
	<i>F</i> (<i>1,1</i>)	<i>p</i>	<i>R</i> ²	<i>f</i> ²	<i>R</i> ² _{Adj}	<i>f</i> ²	β	95% CI		<i>t</i>	<i>p</i>	β	95% CI		<i>t</i>	<i>p</i>
								<i>LL</i>	<i>UL</i>				<i>LL</i>	<i>UL</i>		
Constant	1.13	.481	.53	1.13	.06	.06	6.01	-25.05	37.07	2.46	.246	6.01	1.22	10.80	2.46	.014
RCMB	1.13	.481	.53	1.13	.06	.06	-.68	-8.80	7.44	-1.06	.481	-.68	-1.93	.57	-1.06	.288
Constant	27.00	.121	.96	24.00	.93	13.29	2.37	1.03	3.70	22.52	.028	2.37	2.16	2.57	22.52	<.001
RCUIB	27.00	.121	.96	24.00	.93	13.29	.14	-.21	.49	5.20	.121	.14	.09	.20	5.20	<.001
Constant	1.40	.446	.58	1.38	.17	.20	4.50	-11.37	20.36	3.60	.172	4.50	2.05	6.95	3.60	<.001
RCEB	1.40	.446	.58	1.38	.17	.20	-.39	-4.54	3.76	-1.19	.446	-.39	-1.03	.25	-1.19	.236
Constant	8.95	.205	.90	9.00	.80	4.00	.66	-8.53	9.84	.91	.530	.66	-.76	2.07	.91	.364
RCURB	8.95	.205	.90	9.00	.80	4.00	.57	-1.84	2.97	2.99	.205	.57	.20	.94	2.99	.003

Note: Client (*n* = 3) Caregiver (*n* = 19)

CI= confidence interval; UL= upper limit; LL= lower limit

RCMB= Report of Caregiver Modeling Behaviors; RCUIB= Report of Caregiver Use of Instruction Behaviors; RCEB= Report of Caregiver Encouragement Behaviors; RCURB= Report of Caregiver Use of Reinforcement Behaviors

Range: 1-4

Valence Towards Therapy completed by the 9 caregivers with prior therapy experience

**p* < .05

Table 37*Simple Linear Regression: Caregiver Perceptions of General Invitations from the Agency Effect on Client Level 3 Subscales*

Subscale	Original											Pooled				
	<i>F</i> (1,1)	<i>p</i>	<i>R</i> ²	<i>f</i> ²	<i>R</i> ² _{Adj}	<i>f</i> ²	β	95% CI		<i>t</i>	<i>p</i>	β	95% CI		<i>t</i>	<i>p</i>
								LL	UL				LL	UL		
Constant	96.33	.065	.99	99.00	.98	49.00	14.20	.25	28.15	12.94	.049	14.20	12.05	16.35	12.94	<.001
RCMB	96.33	.065	.99	99.00	.98	49.00	-2.55	-5.85	.75	-9.82	.065	-2.55	-3.06	-2.04	-9.82	<.001
Constant	.33	.667	.25	.33	-.50	-.33	2.07	-16.53	20.66	1.41	.392	2.07	-.80	4.94	1.41	.158
RCUIB	.33	.667	.25	.33	-.50	-.33	.20	-4.20	4.60	.58	.667	.20	-.48	.88	.58	.564
Constant	40.33	.099	.98	49.00	.95	19.00	8.83	-2.79	20.46	9.66	.066	8.83	7.04	10.63	9.66	<.001
RCEB	40.33	.099	.98	49.00	.95	19.00	-1.38	-4.13	1.38	-6.35	.099	-1.38	-1.80	-.95	-6.35	<.001
Constant	.17	.751	.15	.18	-.71	-.42	.17	-81.20	81.53	.03	.983	.17	-12.38	12.72	.03	.979
RCURB	.17	.751	.15	.18	-.71	-.42	.63	-18.63	19.88	.41	.751	.63	-2.35	3.60	.41	.680

Note: Client (*n* = 3) Caregiver (*n* = 19)

CI= confidence interval; UL= upper limit; LL= lower limit

RCMB= Report of Caregiver Modeling Behaviors; RCUIB= Report of Caregiver Use of Instruction Behaviors; RCEB= Report of Caregiver Encouragement Behaviors; RCURB= Report of Caregiver Use of Reinforcement Behaviors

Range: 1-4

Valence Towards Therapy completed by the 9 caregivers with prior therapy experience

**p* < .05

Table 38*Simple Linear Regression: Caregiver Perceptions of Specific Invitations from the Clinician Effect on Client Level 3 Subscales*

Subscale	Original												Pooled			
	<i>F</i> (1,1)	<i>p</i>	<i>R</i> ²	<i>f</i> ²	<i>R</i> ² _{Adj}	<i>f</i> ²	β	95% CI		<i>t</i>	<i>p</i>	β	95% CI		<i>t</i>	<i>p</i>
								LL	UL				LL	UL		
Constant	31.36	.112	.97	32.33	.94	15.67	2.53	.30	4.76	14.44	.044	2.47	1.25	3.70	3.96	<.001
RCMB	31.36	.112	.97	32.33	.94	15.67	.37	-.46	1.19	5.60	.112	.35	-.07	.77	1.63	.103
Constant	.23	.715	.19	.23	-.62	-.38	2.97	1.19	4.76	21.17	.030	2.92	2.56	3.29	15.73	<.001
RCUIB	.23	.715	.19	.23	-.62	-.38	-.03	-.69	.64	-.48	.715	-.01	-.13	.12	-.08	.939
Constant	18.02	.147	.95	19.00	.90	9.00	2.55	.97	4.13	20.47	.031	2.53	1.80	3.25	6.85	<.001
RCEB	18.02	.147	.95	19.00	.90	9.00	.20	-.39	.78	4.25	.147	.18	-.07	.43	1.45	.148
Constant	.11	.799	.10	.11	-.81	-.45	2.99	-4.73	10.70	4.92	.128	2.77	1.27	4.26	3.62	<.001
RCURB	.11	.799	.10	.11	-.81	-.45	-.07	-2.94	2.79	-.33	.799	.02	-.50	.53	.06	.956

Note: Client (*n* = 3) Caregiver (*n* = 19)

CI= confidence interval; UL= upper limit; LL= lower limit

RCMB= Report of Caregiver Modeling Behaviors; RCUIB= Report of Caregiver Use of Instruction Behaviors; RCEB= Report of Caregiver Encouragement Behaviors; RCURB= Report of Caregiver Use of Reinforcement Behaviors

Range: 1-4

Valence Towards Therapy completed by the 9 caregivers with prior therapy experience

**p* < .05

Table 39*Simple Linear Regression: Caregiver Role Activity Beliefs Effect on Client Level 3 Subscales*

Subscale	Original											Pooled					
	<i>F</i> (1,1)	<i>p</i>	<i>R</i> ²	<i>f</i> ²	<i>R</i> ² _{Adj}	<i>f</i> ²	β	95% CI		<i>t</i>	<i>p</i>	β	95% CI		<i>t</i>	<i>p</i>	
								<i>LL</i>	<i>UL</i>				<i>LL</i>	<i>UL</i>			
Constant	3.45	.315	.78	3.55	.55	1.22	6.01	-11.82	23.85	4.29	.146	6.01	3.26	8.77	4.29	<.001	
RCMB	3.45	.315	.78	3.55	.55	1.22	-.54	-4.25	3.17	-1.86	.315	-.54	-1.11	.03	-1.86	.063	
Constant	4.25	.287	.81	4.26	.62	1.63	2.50	-.06	5.06	12.40	.051	2.50	2.11	2.89	12.40	<.001	
RCUIB	4.25	.287	.81	4.26	.62	1.63	.09	-.45	.62	2.06	.287	.09	.004	.17	2.06	.039	
Constant	4.52	.280	.82	4.56	.64	1.78	4.47	-4.22	13.16	6.54	.097	4.47	3.13	5.81	6.54	<.001	
RCEB	4.52	.280	.82	4.56	.64	1.78	-.30	-2.11	1.50	-2.13	.280	-.30	-.58	-.02	-2.13	.033	
Constant	2.29	.372	.70	2.33	.39	.64	1.24	-12.02	14.50	1.19	.445	1.24	-.80	3.29	1.19	.234	
RCURB	2.29	.372	.70	2.33	.39	.64	.33	-2.43	3.08	1.51	.372	.33	-.10	.75	1.51	.130	

Note: Client (*n* = 3) Caregiver (*n* = 19)

CI= confidence interval; UL= upper limit; LL= lower limit

RCMB= Report of Caregiver Modeling Behaviors; RCUIB= Report of Caregiver Use of Instruction Behaviors; RCEB= Report of Caregiver Encouragement Behaviors; RCURB= Report of Caregiver Use of Reinforcement Behaviors

Range: 1-4

Valence Towards Therapy completed by the 9 caregivers with prior therapy experience

**p* < .05

Table 40*Simple Linear Regression: Caregiver Perceptions of Personal Knowledge and Skills Effect on Client Level 3 Subscales*

Subscale	Original												Pooled			
													95% CI			
	<i>F</i> (1,1)	<i>p</i>	<i>R</i> ²	<i>f</i> ²	<i>R</i> ² _{Adj}	<i>f</i> ²	β	<i>LL</i>	<i>UL</i>	<i>t</i>	<i>p</i>	β	<i>LL</i>	<i>UL</i>	<i>t</i>	<i>p</i>
Constant	.01	.935	.01	.01	-.98	-.49	3.19	-27.17	33.55	1.34	.409	3.19	-1.49	7.88	1.34	.181
RCMB	.01	.935	.01	.01	-.98	-.49	.06	-7.42	7.54	.10	.935	.06	-1.09	1.21	.10	.919
Constant	3.00	.333	.75	3.00	.50	1.00	3.23	.85	5.61	17.24	.037	3.23	2.86	3.60	17.24	<.001
RCUIB	3.00	.333	.75	3.00	.50	1.00	-.08	-.67	.51	-1.73	.333	-.08	-.17	.01	-1.73	.083
Constant	.03	.901	.02	.02	-.95	-.49	2.83	-13.54	19.20	2.20	.272	2.83	.30	5.35	2.20	.028
RCEB	.03	.901	.02	.02	-.95	-.49	.05	-3.99	4.09	.16	.901	.05	-.57	.67	.16	.875
Constant	5.88	.249	.86	6.14	.71	2.45	4.21	-3.24	11.65	7.18	.088	4.21	3.06	5.35	7.18	<.001
RCURB	5.88	.249	.86	6.14	.71	2.45	-.35	-2.18	1.48	-2.43	.249	-.35	-.63	-.07	-2.43	.015

Note: Client (*n* = 3) Caregiver (*n* = 19)

CI= confidence interval; UL= upper limit; LL= lower limit

RCMB= Report of Caregiver Modeling Behaviors; RCUIB= Report of Caregiver Use of Instruction Behaviors; RCEB= Report of Caregiver Encouragement Behaviors; RCURB= Report of Caregiver Use of Reinforcement Behaviors

Range: 1-4

Valence Towards Therapy completed by the 9 caregivers with prior therapy experience

**p* < .05

Table 41*Simple Linear Regression: Caregiver Perceptions of Personal Time and Energy Effect on Client Level 3 Subscales*

Subscale	Original												Pooled			
													95% CI			
	<i>F</i> (1,1)	<i>p</i>	<i>R</i> ²	<i>f</i> ²	<i>R</i> ² _{Adj}	<i>f</i> ²	β	95% CI		<i>t</i>	<i>p</i>	β	95% CI		<i>t</i>	<i>p</i>
							LL	UL				LL	UL			
Constant	.008	.944	.01	.01	-.98	-.49	3.67	-30.77	38.11	1.36	.405	3.67	-1.64	8.98	1.36	.176
RCMB	.008	.944	.01	.01	-.98	-.49	-.06	-8.23	8.12	-.09	.944	-.06	-1.32	1.20	-.09	.929
Constant	1.33	.454	.57	1.33	.14	.16	3.23	-.30	6.76	11.61	.055	3.23	2.68	3.77	11.61	<.001
RCUIB	1.33	.454	.57	1.33	.14	.16	-.08	-.92	.76	-1.16	.454	-.08	-.21	.05	-1.16	.248
Constant	.001	.978	.001	.00	-.998	-.50	3.08	-15.69	21.84	2.08	.285	3.08	.18	5.97	2.08	.037
RCEB	.001	.978	.001	.00	-.998	-.50	-.01	-4.47	4.44	-.03	.978	-.01	-.70	.68	-.03	.973
Constant	2.32	.370	.70	2.33	.40	.67	4.24	-7.90	16.39	4.44	.141	4.24	2.37	6.12	4.44	<.001
RCURB	2.32	.370	.70	2.33	.40	.67	-.35	-3.23	2.54	-1.52	.370	-.35	-.79	.10	-1.52	.128

Note: Client (*n* = 3) Caregiver (*n* = 19)

CI= confidence interval; UL= upper limit; LL= lower limit

RCMB= Report of Caregiver Modeling Behaviors; RCUIB= Report of Caregiver Use of Instruction Behaviors; RCEB= Report of Caregiver Encouragement Behaviors; RCURB= Report of Caregiver Use of Reinforcement Behaviors

Range: 1-4

Valence Towards Therapy completed by the 9 caregivers with prior therapy experience

**p* < .05

Table 42*Simple Linear Regression: Caregiver Perceptions of Specific Invitations from the Client Effect on Client Level 3 Subscales*

Subscale	Original											Pooled				
	<i>F</i> (1,1)	<i>p</i>	<i>R</i> ²	<i>f</i> ²	<i>R</i> ² _{Adj}	<i>f</i> ²	β	95% CI		<i>t</i>	<i>p</i>	β	95% CI		<i>t</i>	<i>p</i>
								LL	UL				LL	UL		
Constant	1.92	.398	.66	1.94	.32	.47	2.23	-9.17	13.64	2.49	.243	2.23	.47	3.99	2.49	.013
RCMB	1.92	.398	.66	1.94	.32	.47	.40	-3.27	4.07	1.39	.398	.40	-.17	.97	1.39	.166
Constant	0.00	1.000	0.00	.00	-1.00	-.50	2.91	-.13	5.95	12.16	.052	2.91	2.44	3.38	12.16	<.001
RCUIB	0.00	1.000	0.00	.00	-1.00	-.50	0.00	-.98	.98	0.00	1.000	0.00	-.15	.15	0.00	1.000
Constant	1.53	.433	.61	1.56	.21	.27	2.40	-4.25	9.06	4.59	.137	2.40	1.38	3.43	4.59	<.001
RCEB	1.53	.433	.61	1.56	.21	.27	.21	-1.93	2.35	1.24	.433	.21	-.12	.54	1.24	.216
Constant	.02	.916	.02	.02	-.97	-.49	2.68	-9.67	15.04	2.76	.222	2.68	.78	4.59	2.76	.006
RCURB	.02	.916	.02	.02	-.97	-.49	.04	-3.93	4.02	.13	.916	.04	-.57	.66	.13	.894

Note: Client (*n* = 3) Caregiver (*n* = 19)

CI= confidence interval; UL= upper limit; LL= lower limit

RCMB= Report of Caregiver Modeling Behaviors; RCUIB= Report of Caregiver Use of Instruction Behaviors; RCEB= Report of Caregiver Encouragement Behaviors; RCURB= Report of Caregiver Use of Reinforcement Behaviors

Range: 1-4

Valence Towards Therapy completed by the 9 caregivers with prior therapy experience

**p* < .05

Appendix J

Response to Call for Participants: Agency

- 27 contacted
 - 7 yes, 3 maybe, 17 no
 - Yes: Absolute Health, Acadiana Health, Center for Hope, Center for Thriving Families, New Orleans Center for Hope and Change, Total Life Cares, We Care Behavioral Health
 - Maybe: Five Hearts Healthcare, Therapeutic Counseling, Therapeutic Partners
- Uninterested reasons
 - Overworked staff
 - Short staffed
 - Stressed staff
 - Poor clinician engagement in job duties
 - High staff turnover
 - Hectic scheduling
 - Office adjustments
 - Policies against study participation
 - Lack of willing clinicians
 - Concerns with length of survey and time requirements

Agency 1

- Phone call, one MHR clinician and open to pass info along
- No email responses

Agency 2

- Phone call, uninterested
- No emails

Agency 3

- Interested
- No email responses

Agency 4

- Interested
- Responded to one email restating interest

Agency 5

- Interested and checking in with MHR Clinicians
- No email responses

Agency 6

- Phone call, uninterested

Agency 7

- Phone call, uninterested

Agency 8

- Initially interested but unable to participate
- Contracted clinicians, info was passed along but no response, stop calling

Agency 9

- Phone call, very hesitant about time required for clinicians

Agency 10

- Phone call, uninterested

Agency 11

- Phone call, too busy
- No email responses

Agency 12

- Uninterested

Good Afternoon,

Sorry for the delay in my response but as I explained when you approached me regarding the study we had and continue to have many things going on at Agency 12. We are short staffed and unfortunately I was unable to present this information to our staff. I'm not sure if I didn't communicate myself clearly that I would check into to the possibility and asked for information be forwarded but was not committing myself or the staff to participating in the study. If I lead you to believe otherwise I am truly sorry. I wish LOS could have participated in the study but at this time there are too many changes and additional requirements placed on the staff to be able to do so.

I wish you the very best and much success with your study.

Warm Regards,
Director 12, LCSW
Clinical Director
Agency 12

Agency 13

- Uninterested, too busy
- Clinician was interested but CEO is not

Hi Andrew,

We received your request for your dissertation study. Unfortunately, our policies do not allow for any studies. We wish you the best.

Thanks,

Director 13, LCSW-BACS

Agency 14

- Can't participate

06/15

Hey Andrew!

Sorry I missed your call. I'm out of town in Florida right now.

Unfortunately, our staff are very stressed out at this time because telehealth ended last month for some of our services. It's made their job much more challenging, esp over the summer . Supervisor 1 resigned, so Supervisor 2 and Supervisor 3 are helping me supervise her team.

Given everything going on, I don't suspect there's going to be a lot of participation. But if you would like to send me an email to send out to the staff, I would be happy to do that!

06/19

From: Director 14

Sent: Monday, June 19, 2023 9:40:57 AM

To: Andrew Q Holmgren <aqholmgr@my.uno.edu>

Subject: Re: Dissertation Study

Hey Andrew,

Unfortunately, we don't have any staff who are willing to participate in the study. Everyone is super stressed out right now. Caretaker participation is at an all time low, which as you know affects treatment success. We are finding it difficult to even get caretakers to sign treatment plans via docusign and/or participate in caretaker contacts even every other week. As to the MHPs, I think the thought of having even one more thing on their plate to be responsible for, is just too much.

I am sorry we can't be of help with your dissertation. I am sure it will be a success.

Director 14

From: Andrew Q Holmgren <aqholmgr@my.uno.edu>

Date: Monday, June 19, 2023 at 5:58 PM

To: Director 14

Subject: Re: Dissertation Study

Hey Director 14,

That's unfortunate but I understand. Could I possibly check in with you in 2 or 3 months if I'm still collecting data at that time? I would think that being in the home would ease some of that pressure as clinicians would be able to communicate face to face rather than trying to reach people virtually.

Andrew

06/19

Hey there,

You are welcome to check, but I do not foresee any of our MHPs going into homes again. It's too unsafe and inconvenient. As of now, they are doing telehealth over the summer, and then will do a telehealth/ school visit mix in the Fall. Medicaid has allowed CPST to be telehealth permanently, and then PSR has to be in person. So our staff is currently increasing clients, so that they can code all CPST.

09/07

On Sep 7, 2023, at 9:58 PM, Andrew Q Holmgren <aqholmgr@my.uno.edu> wrote:

Hey Director 14,

I hope you are doing well and that clinicians are settling into their school year schedules. I wanted to check in again about having your clinicians participate in my dissertation study looking at caregiver engagement in their child's MHR services. If you still feel uncomfortable with asking your clinicians to put another thing on their plate, I was wondering if you might be open to providing me with your staff's email list so that I could reach out to them directly. If that makes you uncomfortable and are not open to that idea, I would of course understand. My committee chair suggested this as a possible solution to prevent it seeming as though the request to participate is coming directly from you, which might make clinicians feel obligated to participate even though participation is completely voluntary. I look forward to hearing back from you and hope to be able to share the results of this study with Milestones to potentially improve caregiver engagement and subsequently treatment outcomes for your clients.

Thank you,

Andrew Holmgren, NCC, LPC-MHSP (TN), LPC (LA)
Doctoral Candidate, Counselor Education and Supervision
Department of Educational Leadership, Counseling, and Foundations
University of New Orleans
615-557-3993

09/08

Hey Andrew,

I'm really sorry, but I'm just not comfortable with that.

Giving out their email addresses could irritate some of them since they already said they were not interested in participating. The staff turnover is still constant, so, even if we did get one person to participate, they probably wouldn't even be here three months from now. Fieldwork in New Orleans is becoming a dinosaur quickly.

I'm sorry I can't be of more help!

Agency 15

- Interested, phone call

Agency 16

- Uninterested

Mr. Holmgren,

Thanks for considering our company in your upcoming dissertation study; however, at this time we will need to decline due to our hectic schedule as well as other office adjustments, etc. We wish you the best as you journey through this experience.

Agency 17

- Poor clinician participation

August 11, 2023

Hi Director 17, this is Andrew Holmgren from UNO again. I just wanted to see if you might have some availability after 5 this evening to talk briefly. I left you a voice message as well

August 14, 2023

Good Morning I received your message. I will call you around lunch time.

Great, thank you! I look forward to speaking with you

August 15, 2023

Good evening Director 17. I just wanted to make sure that my email went through yesterday.

August 16, 2023

Heyyyyy yes I received it

Great thank you!

September 8, 2023

Good afternoon, Director 17. I just sent you an email about participation

September 13, 2023

Good morning, just wanted to check in again to see if you got my email

Heyyyyy I did get the email but my plate is so full. As you know we are a small staff and our case manager recently passed away. We are swamped preparing for CARF audit. This is not a good time for us to add anything else to our clinicians load or the office staff as they are already struggling to meet the demands of their jobs. I am so sorry. I do value your research and wish you the best of luck with your dissertation. Sincerely, Director 17.

Agency 18

- Unable to participate

Agency 19

- Unable to participate

Andrew,

Thanks for thinking of us for your study. At this time, however, we are unable to participate.

Thanks,
Director 19

Agency 20

- Forwarded to clinical director and uninterested

Agency 21

- Unable to participate

Andrew,

Good morning. I have discussed this request, with the staff, during our morning staff meeting. At the present time, due to our staff shortage and current case load, we are unable to assist you.

Thank You,

Director 21

Agency 22

- Zoom call set up and seemed interested on 10/06
 - No follow up since

Agency 23

- Interested and initially very responsive but no survey results

Agency 24

- Interested and will pass along

Hi Andrew

I have received your messages and finally have had a chance to read through the email. I will discuss this with staff during our next meeting on 11/8. I will give them one week to determine interest in participation and discuss with their clients to determine interest. Once I have determined the interest level, I will reach back out to you with the number of participants interested.

I will be honest and tell you that my only concern is the length of time the clinician survey takes and that they would have to complete it for each family willing to participate. Regardless, I will discuss with them, remind them about the importance of helping our fellow clinicians, and their overall obligation to the profession!

Feel free to follow up with me as needed. Your emails were going directly to my trash, but I think I have fixed this!

Director 24

Appendix K

Response to Call for Participants: Social Media

- 9 postings each to 8 different Facebook groups for Louisiana Mental Health Clinicians
- 2 postings to another Facebook group for mental health clinicians.
- 27 likes across 4 groups
- Seen 532 times across 6 groups

Comment themes

- Individuals intentionally avoiding MHR work and encouraging to reach out to agencies
- MHR's won't want to participate because of possible additional requirements, policies, and responsibilities
 - Overworked

Baton Rouge Counselors and Therapists

11/08 one like

10/26 one like

10/10 one like

09/28 one like

07/31 one like

FB Respondent 1

Are you a part of LCA?

If yes are you on Tradewing (LCA's social media app)?

You can also post this there!

If not let me know I can post it on your behalf!

MHR Advocacy- Louisiana

10/26 seen by 5

10/10 seen by 3

09/24 seen by 5

09/10 seen by 6

08/28 seen by 4

08/15 seen by 6 one like

07/31 seen by 8

07/17 seen by 10

07/11 seen by 10

Louisiana Mental Health Therapists

11/08 one like

10/26 one like

09/24 one like

07/17 one like

07/11 one like

LMHC Licensed Mental Health Counselors and LPC Central

FB Respondent 2

I've been intentionally staying away from it

Andrew Holmgren

Author

LOL well if you know of anyone doing that work I'm looking for participants to complete a survey for my dissertation

FB Respondent 2

Andrew Holmgren yes

Andrew Holmgren

Author

FB Respondent 2 Awesome! Could you please have them reach out to me at aqholmgr@uno.edu?

FB Respondent 2

Andrew Holmgren I can ask but you'll have more luck contacting agencies directly

Andrew Holmgren

Author

FB Respondent 2 thanks, that was my initial approach over the summer. Individual respondents have proven to be more responsive and able to recruit more people through word of mouth. Agency have been pretty resistant to participating for whatever reason

FB Respondent 2

Andrew Holmgren ok Are you in the locals groups for counselors?

Andrew Holmgren

Author

FB Respondent 2 I am and posted to them last night at the same time. If you happen to be in one and don't see my posts in it could you possibly let me know and / or invite me to that group?

FB Respondent 2

Andrew Holmgren Nola counselors

Andrew Holmgren

Author

FB Respondent 2 yes, I posted there last night. It's showing up on my end

LPC/PLPCs in Lafourche and Terrebonne

11/08 seen by 42

10/26 seen by 49

10/10 seen by 50

09/24 seen by 63

09/10 seen by 71

08/28 seen by 63

08/15 seen by 74 one like

08/02 seen by 63

Northshore Counselors

11/08 one like

10/10

FB Respondent 3

I can ask our company about our facilitators asking families about participation for you. We provide wraparound on the Northshore.

Andrew Holmgren

Author
Thank you!

08/28 one like

07/17 two likes

NOLA Counselors

10/26 two likes

10/10 one like

08/15 one like

07/11 two likes

NOLA Social Workers

10/26 two likes

10/10 one like

09/10 one like

FB Respondent 4

Here's feedback on what may be problematic about finding enough data for your research. There needs to be an incentive for an MHR to want to participate. It doesn't matter what your findings conclude (positive or negative relationships between caregiver participation and client outcome); the results could burden MHRs. Your study could be used to impose additional requirements for

them. MHRs have a plethora of documentation and service requirements. From personal experience, I know MHR assessments and treatment plans have far more requirements than ones for commercial insurers for a much lower reimbursement. These requirements have made it difficult for MHRs to find and keep licensed staff. There's also a possible ethical issue for social workers: a provider asking clients to participate in something that isn't part of their treatment is solicitation, IMHO. Similar to asking a client to write a Yelp review. It may impede a client's right to self-determination if they feel compelled to participate because the provider was asking.

Andrew Holmgren

Author

FB Respondent 4 , thank you for the feedback. Hopefully this response provides some clarification.

The incentive for MHR agencies is the knowledge of what barriers impact caregiver engagement so that clinicians can intervene and improve services. Research on caregiver engagement demonstrates that improving engagement improves treatment outcomes, client retention, and clinician satisfaction in services as well as decreased likelihood of them leaving their current job. For MHR agencies, this directly transfers into better retention of funds since they can better retain clients and are also not having to invest time, resource, and money into constantly training new clinicians. I'll be sharing my results with each participating agency so that they can receive both data regarding their individual agency as well as across agencies to better inform their practice.

The study also has the possibility of validating an assessment tool for determining initial characteristics related to caregiver engagement early in services, like during the intake assessment, as well as how caregivers are engaging and how this engagement is being received by the client, which could be assessed at the 6 month reassessments. Having done those assessments and treatment plans as a MHR clinician and supervisor, I completely agree that there is a lot of paperwork. That being said, I would be hesitant to say that my study would directly contribute to there being additional requirements for agencies. If for whatever reason that did happen, at least there would be clinical evidence for the benefit of including those assessments and how it benefits services. No matter how we look at it though, improved clinical outcomes is something that all of us as clinicians hope for our clients.

Regarding your comments on confidentiality and coercion, the UNO IRB exists to insure that the study limits that influence as much as possible. The study has been approved by the UNO IRB as maintaining confidentiality and minimal/no risk to participants. Me asking my own MHR clients to do this survey would definitely fit the concern for coercion since it is my study for my dissertation. MHR clinicians offering their clients the opportunity to engage in the study voluntarily limits coercion as much as possible. That being said, there is no way for me or any researcher to insure that clinicians do not use coercive tactics to recruit participants. However, at that point it is more a reflection on that clinician's ethics rather than the ethics of the study design. Clinicians offer up referral ideas and opportunities as well as additional resources to their clients and the client's caregivers all the time. There is no requirement for the client or their caregiver to follow those recommendations in treatment. The difficult thing about our field is that all of our research is based on voluntary participation unless it is a meta-analysis of previous research or data. That is why incentive procedures, like I am doing in my study, are used to encourage voluntary, confidential participation.

I'm sure I probably missed responding to one of your points but please feel free to ask me for any further details or clarification on the study, it's purpose and procedures, and it's possible benefits.

07/31

FB Respondent 5

I'd love to see the study when you are done!

Andrew Holmgren

Author

FB Respondent 5 I'm hoping to make it available through LDH once I have the data. Just need the participants. You wouldn't happen to know anyone doing child and adolescent MHR by chance?

FB Respondent 5

Andrew Holmgren Not at the moment. I helped someone set up an MHR a few years ago but she is retired now, so I did work in the field for a bit. I worked mostly on the admin side, although I did see a few clients here and there. I did see how insurers can easily shut those businesses down. In addition to my MSW, I have an MA in Sociology from UNO, so I am interested in these studies and would love to see the results. I love research (and yes, I miss school and doing papers!).

My Car is My Office- For Community Mental Health Professionals

10/26 one like

Vita

Andrew Q. Holmgren was born in Milwaukee, Wisconsin. After completing high school in Nashville, TN in 2010, he obtained his Bachelor of Science in Psychology from Centre College in 2014 and his Master of Education degree in Clinical Mental Health Counseling from the University of Louisville in 2016. He completed practicum and internship experiences at the Academy at Shawnee and Our Lady of Peace Hospital in Louisville, KY. After graduating in 2016, he worked for a year at Our Lady of Peace Hospital providing inpatient and intensive outpatient services to patients at the hospital, focusing on child and adolescent clientele. After moving with his wife, Eleanor, to New Orleans, LA in 2017, Andrew completed his supervised experience working for Milestones Mental Health Agency providing Mental Health Rehabilitation services to New Orleans youth in their homes and schools. Andrew enrolled at the University of New Orleans to pursue a Ph.D. in Counselor Education in 2018 and continued providing MHR services until transitioning to a school-based position in 2021. Andrew and his family later moved to Franklin, TN where he began working as a clinical therapist for Family Care Center's first Tennessee clinic providing individual, couples, and family counseling to child, adolescent, and adult clients. Andrew is a Licensed Professional Counselor- Mental Health Service Provider in the state of Tennessee and is also recognized as a National Certified Counselor. He hopes to continue researching caregiver engagement in their child's mental health services and providing information about this research to agencies and clinicians who work with this population.