

**Assessing Parental Readiness to Change: A Psychometric Evaluation of the READI-SF in a
Community Sample**

by

Kaitlin Baker Proctor, M.S.

A dissertation submitted to the Graduate Faculty of
Auburn University
in partial fulfillment of the
requirements for the Degree of
Doctor of Philosophy in Clinical Psychology

Auburn, Alabama
August 5, 2017

Keywords: Readiness, motivation, assessment, Parent-Child Interaction Therapy

Copyright 2016 by Kaitlin Baker Proctor

Approved by

Elizabeth Brestan-Knight, Chair, Professor of Psychology
Chris Correia, Professor of Psychology
Jinyan Fan, Associate Professor of Psychology
Steven K. Shapiro, Associate Professor of Psychology
Amanda Evans, Assistant Professor of Special Education, Rehabilitation, and Counseling

Abstract

Engagement in parent training continues to be a barrier to service delivery (Brestan & Eyberg, 1998; Chacko, Wymbs, Chimiklis, Wymbs, & Pelham, 2012; Eyberg, Nelson, & Boggs, 2008; Miller & Prinz, 2003; Nock & Kazdin, 2005; Steiner & Remsing, 2007). Parent training programs place a high level of action-oriented demands on caregivers, thus readiness to change parenting behaviors may be especially important in engagement and retention (Chaffin et al., 2009; Miller & Prinz, 2003). Preventive parent training models have demonstrated efficacy for reducing disruptive behavior in young children (Greenberg, Domitrovich, & Bumbarger, 2001; O'Connell, Boat, & Warner, 2009; Steiner & Remsing, 2007) and may reduce barriers to engagement by providing wider accessibility of services (Becker et al., 2015; Garvey et al., 2006; Gopalan et al., 2010; Lindsey et al., 2014). The transtheoretical model has informed the creation of motivational enhancement programs that have demonstrated positive effects on engagement and client outcomes in parent training interventions (Chacko et al., 2012; Chaffin et al., 2009; Ingoldsby, 2010; Nock & Kazdin, 2005). Evidence suggests that these interventions may be most effective when tailored to families' treatment readiness at service initiation (Chaffin et al., 2009).

Measures of parental readiness are needed to inform treatment tailoring and maximize agencies' limited therapy resources; however, measures of this construct have been understudied in the literature to date. Notably, all measures of this construct have been tested within clinical samples, and examination of these measures within community populations is warranted in order

to maximize the utility of parental readiness measures across contexts (Flay et al., 2005; Fok & Henry, 2015; Gottfredson et al., 2015; Proctor & Brestan-Knight, 2016). The present study examines the performance of one parental readiness measure, the Readiness, Efficacy, Attributions, Defensiveness, & Importance Scale – Short Form (READI-SF) in a community-based sample. The current study examines the psychometric properties and factor structure of the READI-SF as well as indices of reliability and validity. Lastly, the study examines additional factors that may impact ratings of parent readiness, like child disruptive behavior and other familial factors. Limitations and future directions are discussed.

Acknowledgements

This document would not be complete without an expression of my gratitude to the mentors, family, and friends who have supported me in this journey. Thank you for the myriad ways you've been with me and bolstered me in this process. Each action of support has been received gratefully and cherished. Life is so richly enhanced by each of you.

The constancy and support of my mentor, Dr. Elizabeth Brestan-Knight, have enriched my graduate training and made this document possible. I want to express my sincerest thanks for bringing me in as an undergraduate to your lab and developing me through graduate school into a young professional. You have graciously shared your seemingly boundless knowledge and experience in Parent-Child Interaction Therapy, as well as your enthusiasm for scholarship and teaching, and I am honored and grateful to have learned under your mentorship. I am also appreciative of your efforts in cultivating our wonderful Parent-Child Research Lab. I am grateful to have had such an amazing group of individuals with whom to learn, work, and travel. I am truly glad to call them friends. I would also like to express gratitude to my committee members and faculty mentors who have contributed significantly to both my professional and personal development. Their input into this project has been invaluable.

I would also like to thank my parents for loving me unconditionally and always being my biggest fans. Your loving guidance and the examples you set demonstrate daily how to live with love, joy, gratitude, and grit. Though I'll likely never know which side I get it from, thank you for giving me the stubbornness gene to persevere in the face of challenges. Your support and

encouragement helped me believe that this day would come and carried me forward when I doubted.

Lastly, my sincerest thanks are owed to my husband, Ryan. You have been beside me from my first day of college and loved me through graduate school. If that's not a testament to the strength of our relationship, I don't know what is. Your unwavering support means more to me than you can know, and I appreciate your faithfulness in being there with a shoulder, a laugh, or a late-night ice cream – and sometimes all three. You repeatedly demonstrate how to support another person well.

Table of Contents

Abstract	ii
Acknowledgements	iv
List of Tables	viii
List of Figures	ix
Introduction.....	1
Engagement in Preventive Interventions	3
Transtheoretical Model	7
Treatment Readiness	10
Assessing Readiness	15
The Parent Readiness for Change Scale (PRFCS).....	16
Parent Motivation Inventory (PMI)	19
The Readiness, Efficacy, Attributions, Defensiveness, and Importance Scale (READI)	21
Measuring Readiness in Prevention Models	23
Goals of the Current Study	24
Aims and Hypotheses	25
Method	26
Participants.....	26
Procedure	27
Measures	30

Primary Analyses	32
Results.....	34
Psychometric Properties.....	34
Measurement Validity.....	37
Factors Impacting Readiness	38
Child Behavior Problems and Readiness	39
Discussion	40
Limitations	48
Future Directions	50
Summary	53
References.....	54
Appendix A.....	68
Appendix B	70
Appendix C.....	72
Tables and Figures.....	73

List of Tables

Table 1	73
Table 2	74
Table 3	76
Table 4	79
Table 5	80
Table 6	81
Table 7	82
Table 8	83
Table 9	84
Table 10	85
Table 11	86
Table 12	87
Table 13	88
Table 14	90

List of Figures

Figure 1	77
Figure 2	78
Figure 3	89
Figure 4	91

Introduction

There are many empirically validated treatments for child and adolescent behavior problems. However, validated interventions alone are not sufficient (Eyberg et al., 2008; Nock & Photos, 2006). Effective treatment depends on both successful interventions *and* meaningful engagement in the treatment process to affect change (Chaffin et al., 2009; Miller & Prinz, 2003; Nix, Bierman, & McMahon, 2009). Engagement is a multi-faceted, dynamic construct that encompasses both attitudes and behaviors (Becker et al., 2014; Becker et al., 2015; Gopalan et al., 2010; King, Currie, & Petersen, 2014; Staudt, 2007). Specifically, attitudes (e.g., beliefs about treatment efficacy, treatment satisfaction, barriers to treatment) are believed to effect engagement behaviors (e.g., attending treatment, actively participating in the intervention, adherence to homework). Therapy is transactional in nature, and therapists' interactions with clients can also impact treatment engagement (King et al., 2014).

Engagement is currently being examined by researchers among a wide spectrum of outcomes, moving beyond simply measuring attendance to also including adherence and cognitive engagement indices (Becker et al., 2015; Gopalan et al., 2010; Lindsey et al., 2014; McKay & Bannon, 2004). All three indices may be particularly important for child therapy relative to adult therapy, because the nature of treatment engagement differs significantly between the two (Nock & Ferriter, 2005). In adult care, individuals are responsible for engaging themselves in treatment to address a problem. However, in child and family treatment, the caregiver is typically the one who refers a child to services, provides legal consent, and is responsible for payment and logistics (e.g., balancing multiple schedules, arranging transportation for appointments; Nock & Ferriter, 2005; Nock & Kazdin, 2005). Caregivers of young children must often reflect on the impact of their own behaviors on the child's behaviors,

ASSESSING PARENTAL READINESS

actively work towards changing their own behaviors, and facilitate changes in their child.

Research indicates that many caregivers do not expect to be an integral part of the treatment program, and parental expectations and the acceptability of an intervention can have a large impact on treatment engagement (Kazdin & Wassell, 2000; Mah & Johnston, 2008; Miller & Prinz, 2003; Nock & Ferriter, 2005). Thus, caregivers play an integral role in implementing therapeutic interventions and producing sustainable change for children.

Behavioral parent training programs are well-validated interventions for children with disruptive behavior disorders (DBDs), but engagement in parent training continues to be a barrier in service delivery (Brestan & Eyberg, 1998; Chacko et al., 2012; Eyberg et al., 2008; Miller & Prinz, 2003; Nock & Kazdin, 2005; Steiner & Remsing, 2007). It is estimated that 40 to 60 percent of families drop out of parent training interventions prematurely (Chacko et al., 2012; Nock & Kazdin, 2005; Nock & Photos, 2006). Low engagement and intervention dropout are significant threats to evidence-based interventions, both in research and clinical applications (Boggs et al., 2005; Ingoldsby, 2010; Wierzbicki & Pekarik, 1993). Premature treatment termination is costly for families and service providers in terms of diminished intervention effects and the use of limited agency resources (Brogan, Prochaska, & Prochaska, 1999; Ingoldsby, 2010; Rapp-Paglicci & Savon, 2009).

Research within the engagement literature suggests that families who effectively engage in parent training (e.g., complete homework, attend sessions, adhere to treatment recommendations) have better outcomes (Armbruster & Kazdin, 1994; Boggs et al., 2005; Chacko et al., 2012; Garvey, Julion, Fogg, Kratovil, & Gross, 2006; Miller & Prinz, 2003; Nock & Kazdin, 2005). However, the literature also indicates that families at risk of poorer treatment outcomes tend to drop out of treatment at even higher rates, such as those with externalizing and

ASSESSING PARENTAL READINESS

behavioral difficulties, more severe psychopathology, low-income families, ethnic minority families, and families with parental psychopathology, (de Haan, Boon, de Jong, Hoeve, & Vermeiren, 2013; Fernandez & Eyberg, 2009; Gopalan et al., 2010; Ingoldsby, 2010; Kazdin & Wassell, 2000; McKay & Bannon, 2004; Prinz & Miller, 1994; Staudt, 2007). Evidence is mixed on how the severity of a child's behavior problems impacts treatment engagement, demonstrating that severity can either decrease or motivate attendance, with the latter being the more common finding (Berkovits, O'Brien, Carter, & Eyberg, 2010; Garvey et al., 2006; Nix et al., 2009). Families may also experience changes in or conflicts with their motivation due to unanticipated stressors, low perceived relevance of the intervention, or time demands that interfere with engagement (Chaffin et al., 2009; Ingoldsby, 2010; Treysman, 2013). Taken together, the literature suggests that caregiver engagement is an integral mechanism of change in treatment for children with conduct problems and must be attended to in order to maximize intervention effects. We are just beginning to understand the dynamic interplay of familial, parent, child, and environmental characteristics that effect engagement.

Engagement in Preventive Interventions

Research suggests that DBDs are stable and become more difficult to treat over time, thus many interventions for DBDs target early childhood and focus on altering the developmental trajectory (Steiner & Remsing, 2007; Shaw, 2013; Shaw, Dishion, Supplee, Gardner, & Arnds, 2006; Webster-Stratton & Reid, 2006). Parent training programs focus on increasing parents' knowledge of child development and target parenting behaviors like warmth and appropriate discipline. Additionally, parent training has demonstrated efficacy in reducing child abuse and neglect, which are among the leading causes of death for young children (Sandler, Schoenfelder, Wolchik, & MacKinnon, 2011; Steiner & Remsing, 2007). Preventive parent training

ASSESSING PARENTAL READINESS

interventions are designed for families who are at-risk for or are demonstrating sub-clinical levels of an outcome (e.g., disruptive behaviors). Preventive parent training may be helpful in engaging families in health-promoting behaviors early in the child's developmental trajectory, interrupting the cycle of child disruptive behaviors and negative outcomes across the parent-child relationship, peer relationships, and school achievement (Greenberg, Domitrovich, & Bumbarger, 2001; O'Connell, Boat, & Warner, 2009; Steiner & Remsing, 2007). Parent training programs are a natural fit for prevention models because of the emphasis on early intervention for behavior problems occurring during the early childhood years. Preventive parent training models may enhance clinicians' ability to engage and retain more families by delivering a less-intensive intervention structured to match families' needs.

Schools are identified as high-priority environments for the delivery of preventive interventions, given the accessibility for families and the importance of this setting within a child's developmental context (Biglan, Flay, Embry, & Sandler, 2012; Clarke et al., 2006; Steiner & Remsing, 2007; Wandersman & Florin, 2003). Providing interventions in a community-based setting, like the child's school, may remove barriers related to transportation, childcare, and the perceived stigma associated with mental health treatment. For example, Garvey and colleagues (2006) provided a preventive parent training intervention embedded in preschool centers for low-income families with children ages 2 to 4. Family variables such as lower parenting self-efficacy, higher levels of parent-reported child behavior problems, and attendance at the first session were associated with higher attendance across the 11-week intervention. However, the authors found that locating the intervention in a more accessible location does not remove all barriers to treatment. Participation in the study remained relatively low, with a 35% enrollment rate (Garvey et al., 2006). Engaging parents in preventive parent

ASSESSING PARENTAL READINESS

training may be especially challenging, because parents may not yet identify a need for services (Nix et al., 2009).

Overall, current evidence suggests that increasing the accessibility of treatment helps increase engagement by reducing both logistical and cognitive barriers to treatment, but that some barriers to services remain (Becker et al., 2015; Garvey et al., 2006; Gopalan et al., 2010; Lindsey et al., 2014). It is important to note that the relatively small subset of parents participating in preventive parent training interventions might actually be the intended target audience, representing families with a subset of variables (e.g., increased child behavior problems, low parental self-efficacy) that place the child and family at increased risk for problems down the road. This line of research will be of paramount importance as the field of prevention for child disruptive behavior problems continues to grow.

Berkovits et al. (2010) examined an abbreviated form of an empirically supported parent training program, Parent-Child Interaction Therapy (PCIT). PCIT is designed for children ages 2 to 7 with DBDs and conduct problems (Eyberg et al., 2008). PCIT is an empirically supported parent training program that focuses on changing dysfunctional parent-child interactions by enhancing the parent-child relationship and teaching parents effective behavior management and consistent, appropriate discipline skills (Boggs et al., 2005; Eyberg & Bussing, 2011; Eyberg et al., 2008; Steiner & Remsing, 2007). The average length of treatment for traditional PCIT delivered to one family is 13 sessions (Bell & Eyberg, 2002; Brinkmeyer & Eyberg, 2003). PCIT consists of two stages: Child Directed Interaction (CDI), where parents are taught skills to enhance relational warmth, and Parent Directed Interaction (PDI), where parents are taught effective discipline skills (Eyberg & Funderburk, 2011). A teaching session is provided to parents at the beginning of both treatment phases, and subsequent sessions consist of coaching

ASSESSING PARENTAL READINESS

the parent and child through a bug-in-the-ear device. The length and intensity of the intervention may be prohibitive to families of children with minor behavior problems or a high degree of stressors, thus Berkovits et al. explored the effect of an abbreviated intervention based on the PCIT framework.

Berkovits and colleagues (2010) adapted PCIT to a prevention framework delivered in a primary care setting. Participants were divided into one of two intervention groups: a four-week Primary Care PCIT (PCIT-PC) group that consisted of two didactic sessions and two in-vivo coaching sessions with the parent-child dyad, and a second group (PCIT “anticipatory guidance”, PCIT-AG) that provided the same handouts as the PC-PCIT group but did not receive instruction or feedback.

The sample in Berkovits et al. (2010) consisted of maternal caregivers of children ages 3 to 6 presenting across three pediatricians’ offices serving families with diverse socio-economic backgrounds. One hundred eleven mothers completed an initial screening packet. Families were screened out of the study if: child disruptive behavior was rated one standard deviation below or above the clinical cutoff on the Eyberg Child Behavior Inventory (Eyberg & Pincus, 1999), the child had severe sensory or mental impairment, or the caregiver did not want to participate in a parenting program. Thirty mothers (27% of the recruitment sample) participated in the intervention. The sample consisted of predominately Caucasian mothers, followed by African American and Hispanic mothers, and the sample represented a range of annual family incomes.

Assessments were completed during the initial screening, immediately post-intervention, and during a six-month follow-up. More severe behavior problems in children were associated with increased parental interest in participating in the intervention. Immediately post-intervention, both groups reported significant improvements in child disruptive behavior,

ASSESSING PARENTAL READINESS

parenting strategies, and parental sense of control. Interestingly, no significant differences emerged in child or parent outcomes between the PC-PCIT and PCIT-AG groups. Both groups maintained comparable gains at the six-month post-assessment. These findings suggest that self-guided interventions based on evidence-based treatments may be equally effective as abbreviated clinician-lead interventions for children with minor to moderate behavior problems within a prevention framework (Berkovits et al., 2010). The significant gains in child and parent outcomes observed in the Berkovits et al. study is encouraging and supports continued study of the utility of preventive interventions in reducing early child behavior problems. Understanding parents' pretreatment readiness to change and barriers to engagement will help to maximize the impact these interventions have within communities.

Transtheoretical Model

Identifying parents' pretreatment motivation to engage in services targeting disruptive behavior is crucial to understanding why parents differentially seek and remain engaged in intervention. The transtheoretical model (TTM) explores the stages and processes involved in behavior change and predicts that client engagement is related to these processes (Derisley & Reynolds, 2002; Prochaska & DiClemente, 1982; Prochaska & DiClemente, 1983). The TTM posits that individuals progress sequentially through a series of five stages when engaging in intentional behavior change (Prochaska, Redding, & Evers, 2008). An individual in the first stage of the model, precontemplation, does not identify the presence of a problem or intend to change the behavior of interest and instead focuses on barriers to change. In the second stage, contemplation, the individual identifies that there may be a problem but feels significant ambivalence about changing. Next, there is preparation, where the individual has made a plan for action and intends to enact the plan soon. Fourth, an individual in the action stage is engaged in

ASSESSING PARENTAL READINESS

changing the behavior. An individual in the action stage is considered to be “ready” to change (Andrade, Browne, & Naber, 2015). Lastly, individuals in the maintenance phase have achieved the desired change and are working to prevent relapse (e.g., re-emergence of the problematic behavior). While the individual is expected to move both forward and backward during the process of behavioral change, it is not expected that the individual would skip stages.

The TTM was originally designed to describe behavioral change in substance abuse interventions. However, the model has since been empirically tested in other applications, including: anxiety/panic disorders, bullying, delinquency, depression, eating disorders, obesity, unplanned pregnancy prevention, pregnancy and smoking, and preventive medicine, among others (Prochaska et al., 2008). The relevance of particular stages may relate differentially to a given clinical population, as evidenced in child and family research. For example, the precontemplation, contemplation, and action stages have been identified as most relevant for families involved with child protection services, and the maintenance phase has little relevance for families at treatment initiation (Andrade et al., 2015; Brestan, Ondersma, Simpson, & Gurwitch, 1999a; Littell & Girvin, 2005; Wade & Andrade, 2015).

The TTM is helpful in studying individual differences that may impact engagement in therapeutic interventions. However, recent literature calls into question the application of five discrete stages of change (Girvin, 2004; Littell & Girvin, 2005; Miller & Tonigan, 1996). A review by Littell and Girvin (2002) indicated that behavioral change may be better represented by a continuous model. Corden and Somerton (2004) raised critical questions in the extension of the five-stage model to child and family interventions. Specifically, the authors argued that parenting is a complex interaction between the dyad and the environment, and that many factors shape parenting practices.

ASSESSING PARENTAL READINESS

Single stage classification may not be sufficient to encompass the environmental and ecological changes required to engage in parenting interventions *and* change parenting behaviors (Girvin, 2004; Morrison, 2010). Behavioral change associated with treatment engagement and parenting may operate under different mechanisms, necessitating study of the nested effects of behavioral change (DiClemente, Schlundt, & Gemmell, 2004). For example, different mechanisms might underlie changes associated with treatment engagement (e.g., session attendance, homework completion) and changes to parenting behaviors (e.g., increased use of praise, the use of consistent, appropriate discipline strategies). A third mechanism might account for the co-occurrence of both change processes simultaneously.

Motivation is an important determinant of change in the TTM. Motivation has been defined as “personal considerations, commitments, reasons, and intentions that move individuals to perform certain behaviors” (DiClemente et al., 2004, p. 103-104). Intervention strategies, like motivational interviewing (Miller & Rollnick, 2012), have been developed based on the TTM and capitalize on an individual’s motivation to engage in intentional behavior change (DiClemente et al., 2004). Principles from the TTM have been applied to inform intervention strategies designed to increase parents’ pre-treatment motivation. Brief motivational enhancement interventions based on TTM principles have demonstrated efficacy in increasing families’ engagement in parent training programs, providing support for the application of TTM principles to child and family interventions (Chacko et al., 2012; Chaffin et al., 2009; Ingoldsby, 2010; Nock & Kazdin, 2005). Studies of strategies to enhance engagement in child and adolescent treatments have been conducted, and researchers have identified 22 practice elements that have been empirically supported in increasing treatment engagement (Becker et al., 2015;

ASSESSING PARENTAL READINESS

Lindsey et al., 2014). Constructs underlying behavioral change in the TTM, like motivation and readiness, provide a unique perspective on engagement behaviors.

Treatment Readiness

A related way that researchers have studied the mechanisms of behavioral change is through the measurement of readiness. Readiness is defined as a “willingness or openness to engage in a particular process or to adopt a particular behavior,” (DiClemente et al., 2004, p. 104). Readiness is more broad than stages, encompassing readiness to change and readiness for treatment (DiClemente et al., 2004). Readiness for change encompasses the perceived importance of the problem and the individual’s belief in his or her ability to change. Readiness for treatment reflects the individual’s “motivation to seek help, preparedness to engage in treatment activities, and how (those factors) impact patient treatment attendance, compliance, and outcome” (DiClemente et al., 2004, p. 105).

Readiness is consistent with the TTM and provides a helpful heuristic for understanding families’ engagement in parent training interventions. A continuous model of readiness has been supported in the parent training literature; however, it is also important to note that both the stage and continuous models may be helpful in clinical decision-making (Wade & Andrade, 2015). The TTM allows clinicians to classify parents at different levels of readiness to change and may, therefore, help tailor services to a particular stage (Wade & Andrade, 2015). Alternately, a continuous model provides a relative position to conceptualize parents’ readiness rather than assuming homogeneity across stages (Wade & Andrade, 2015). Understanding parents’ readiness along a continuum may be more informative in determining the intensity and level of pre-intervention required to effectively facilitate treatment readiness.

ASSESSING PARENTAL READINESS

Treatment readiness may be especially important in parent training programs, as the programs place a high level of action-oriented demands on caregivers (Chaffin et al., 2009). Several validated parent training programs have conducted studies that supported the addition of a brief motivational enhancement component to increase parental readiness and engagement (Chacko et al., 2012; Chaffin et al., 2009; Ingoldsby, 2010; Nock & Kazdin, 2005). The goal of the enhancement module in these studies was to increase parent readiness for treatment, thereby increasing engagement and preventing premature dropout. Most studies have observed significant decreases in dropout rates as a result of motivational enhancement interventions. However, the literature in this area further suggests that interventions may be most effective when matched to caregivers' presenting levels of readiness to begin treatment.

Nock and Kazdin (2005) provide an excellent example of the addition of a motivational enhancement intervention. The authors tested the addition of brief motivational enhancement strategies for caregivers enrolled in parent training. Families entering treatment for child conduct problems were randomly assigned to parent management training (treatment as usual, TAU), or to parent management training plus the Participation Enhancement Intervention (PEI). Parent engagement was examined over the eight-week intervention, which included an orientation session, an assessment session, and six manualized treatment sessions. The techniques in the PEI were based on the stages of change and barriers to treatment models. The PEI intervention was delivered during sessions one, five, and seven. The intervention lasted between five and 15 minutes, during which time the therapist discussed treatment engagement with the parent. Discussions focused on eliciting self-motivational statements about caregivers' plans to change parenting behaviors, adhering to the treatment plan, and potential barriers to treatment engagement. Therapists then worked with caregivers to develop plans to overcome each barrier.

ASSESSING PARENTAL READINESS

Finally, therapists completed a change plan worksheet for the family to take home, along with brochures highlighting the importance of treatment attendance and adherence in producing positive outcomes.

All families were clinic referred for treatment, and demographic characteristics of the sample are reviewed in later in this document. Treatment readiness was assessed with the Parent Motivation Inventory (PMI; Nock & Photos, 2006). Readiness scores on the PMI were negatively skewed, indicating a high level of pretreatment motivation within the sample. The scores were transformed to approximate a normal distribution for analysis, but the untransformed scores are reported (Nock & Kazdin, 2005; Nock & Photos, 2006). Between-group differences were reported for the PEI and TAU groups. Results revealed that parents who received the PEI intervention endorsed significantly greater readiness and perceived ability (e.g., self-efficacy) to change parenting practices, as well as greater overall motivation for treatment. Differences in readiness and parents' perceived ability to change demonstrated moderate to strong effect sizes ($d = 0.60, 0.55$, respectively). Parents in the PEI condition also attended significantly more sessions than parents in the TAU groups, with a medium effect size between the two groups ($d = 0.47$). Lastly, treatment adherence demonstrated a cumulative effect across the PEI intervention, with similar levels of adherence between PEI and TAU reported at session five but larger differences emerging at sessions seven and eight for the PEI group.

Thus, it seems that brief interventions targeting motivational enhancement can be effective in promoting engagement. However, a study conducted by Chaffin et al. (2009) challenged the assumption that motivational enhancement interventions benefit all caregivers equally. Chaffin and colleagues examined a six-session pre-treatment self-motivation orientation (SM) condition compared to a six-session TAU informational orientation for parents court-

ASSESSING PARENTAL READINESS

mandated to attend treatment after a child-welfare referral. Consistent with TTM principles, the SM intervention was based on motivational interviewing principles, and included sessions involving parent testimonials, decisional balance exercises on harsh physical discipline and change, engagement of caregivers in identifying parenting problems and goals, highlighting discrepancies between the current parent-child relationship and goals, and encouragement in making a plan for change. The TAU orientation focused on education about the roles of child welfare, definitions and effects of child maltreatment, available services, and information about how a parent's past experiences might affect parenting. After completing orientation, parents were randomized a second time to a parenting intervention. One group was a 12-week standard didactic group where parents received psychoeducation about a variety of topics, including child development and stress management techniques. The group focused primarily on attitudes, beliefs, and knowledge about parenting. The second parenting group was a 12- to 14-week Parent-Child Interaction Therapy (PCIT) group.

The sample consisted of 192 parents referred for treatment by child welfare agencies for physical abuse and/or neglect. Caregivers were predominately female (75%). Sixty percent identified their race and ethnicity as non-Hispanic Caucasian, 19% as African American, 9% as Native American, 7% as Hispanic, and 6% as Asian. Thirty-five percent of the caregivers were married or cohabitating, 29% were never married, 18% were divorced, and 17% were separated. Half of the sample was receiving public assistance at the time of the intervention, and 75% fell below the federal poverty threshold. Children were between the ages of 2.5 and 12 years old. Treatment readiness was assessed using an adapted version of the Readiness for Parenting Change Scale (REDI; Mullins, Suarez, Ondersma, & Page, 2004), which was originally designed for use with substance-abusing parents in child welfare and substance abuse services. Chaffin et

ASSESSING PARENTAL READINESS

al. (2009) adapted the measure to include intervention aims, harsh parenting practices, and parents' court-mandated status in the program.

As expected, Chaffin and colleagues (2009) found that readiness for treatment improved significantly overall in the motivational enhancement intervention. However, contrary to the proposed hypotheses, the effects of the motivational enhancement intervention on parent engagement were moderated by parental readiness at treatment initiation. Results indicated that parents who were initially more motivated to enter treatment saw neutral to negative effects for the motivational enhancement intervention (e.g., increased dropout) compared to initially low or unmotivated caregivers, who appeared to benefit from the motivational enhancement condition. In the SM condition, 100% of caregivers in PCIT with initially low motivation remained in treatment, compared to 72% of caregivers in PCIT with high motivation at intake. It is notable that even the "lower" retention rate of 72% is high compared to the 40 to 60% retention rate observed in the broader child and family therapy literature.

While the Nock and Kazdin (2005) and Chaffin et al. (2009) studies highlighted examine different populations (e.g., clinic-referred for child behavior problems versus court-mandated following child maltreatment), the Chaffin et al. study highlights the possibility of differential effects for an intervention previously assumed to benefit all parents and the importance of asking parents about their readiness to enter a treatment program with their child. Other studies examining treatment readiness have used aggregate data and did not examine pre-treatment readiness as a moderator of intervention effects, which may account for some of the inconsistent effects observed for the role of engagement and retention in parenting interventions with motivational enhancement components (Ingoldsby, 2010).

ASSESSING PARENTAL READINESS

The findings from the study by Chaffin and colleagues (2009) have significant implications for tailoring treatment and suggest that motivational enhancement interventions may not be best applied as a universal approach. However, the measurement of readiness has been understudied in the parenting literature and well-validated assessment measures are needed to quantify parental readiness to enter treatment. Further, parental readiness has been examined in clinical samples, where ceiling effects may limit the variability of responses. Examining these measures in both clinical and non-clinical samples will aid in establishing cut-off scores and enhance researchers' and clinicians' ability to make informed decisions about the construct of parental readiness, treatment tailoring, and service provision. Additionally, establishing normative data for community samples will be of importance for interpreting parents' responses as the provision of preventive parent training interventions continues to expand in community settings (Flay et al., 2005; Fok & Henry, 2015; Gottfredson et al., 2015; Proctor & Brestan-Knight, 2016).

Assessing Readiness

No gold standard for the assessment of readiness exists in the adult literature, and standards are far from articulated in the child and family literature (Napper et al., 2008). Readiness to change has predominately been assessed in the adult and adolescent substance abuse and adult psychotherapy literatures, which have used similar instruments to assess motivation and readiness for change. Parent readiness measures have been adapted and are beginning to be examined in the parent training literature.

Measures assessing readiness to change informed by the TTM have had mixed success in the adult literature (Carey, Purnine, Maisto, & Carey, 1999; Napper et al., 2008). There is a lack of consistent evidence supporting the measures' predictive validity, which has been noted as

ASSESSING PARENTAL READINESS

problematic (Littell & Girvin, 2002). The mixed data supporting the measures' predictive validity may be, in part, due to the reliance on self-reported future intention to change behavior rather than discrete behavior (Littell & Girvin, 2002). There may be important gaps between stated intention and behavioral change (Prochaska et al., 2008). Alternately, it may be that the measures fail to capture a broader construct related to engagement. Readiness may encompass a broader, underlying construct that is not being sufficiently sampled. It is important that research continues to examine how to best assess motivation and readiness to change, given the relationship between motivation and treatment engagement, and between treatment engagement and treatment outcomes associated with low adherence, attendance, and drop out (Rapp-Paglicci & Savon, 2009). To date, two measures of parental readiness have been examined in the literature.

The Parent Readiness for Change Scale (PRFCS)

The Parent Readiness for Change Scale (PRFCS; Brestan et al., 1999a) was adapted from a well-validated measure of the stages of change, the University of Rhode Island Change Questionnaire (URICA; McConaughy, Prochaska, & Velicer, 1983) and extended the TTM into parenting interventions. Like early TTM models, the PRFCS included four stages: precontemplation, contemplation, action, and maintenance. The instructions for the PRFCS were modified from the URICA to ask about parents' readiness to change parenting behaviors. Parents were asked to respond to items on a 5-point Likert scale from 1 (Strongly Disagree) to 5 (Strongly Agree). The original measure contained 28 items, but the Maintenance scale was dropped due to perceived lack of relevance, since the PRFCS was designed to be a pre-treatment measure. The shortened measure contained 17 items. The initial validation by Brestan et al. was

ASSESSING PARENTAL READINESS

conducted with a clinical sample of drug-using mothers. Findings confirmed the three-factor structure, and the PRFCS demonstrated good internal consistency.

Niec, Barnett, Gering, Triemstra, and Solomon (2015) provided a second examination of the PRFCS within a clinical sample as part of a larger study examining differences between mothers' and fathers' readiness for change. The study included 60 families (120 parents) from a rural university-based training clinic providing PCIT services. Only families with both parents living in the home were included. The majority of caregivers were biological parents (87%), followed by step-parents (11%) and grandparents with guardianship (2%). Caregivers' average age was 31 ($SD = 7.3$), with a range from 19 to 52. The families were predominately Caucasian (96%). The study used 23 of the original 28 items from the PRFCS. The PRFCS demonstrated strong internal consistency, with cronbach's alpha values of 0.78 for Precontemplation, 0.87 for Contemplation, and 0.80 for Action.

Wade and Andrade (2015) provided a psychometric validation of the PRFCS using the shortened 17-item scale supported in the validation conducted by Brestan and colleagues (1999a). They compared the 17-item version to a 21-item version derived from items determined to reliably map onto the URICA to determine the form of the measure that maximized clinical utility, reliability, and validity. The sample consisted of 138 parents of children presenting to a specialized children's mental health program for clinically significant levels of disruptive behaviors. Parents completed the PRFCS as part of a larger intake battery used to inform clinical service delivery. Children ranged in age from 6 to 12, with an average age of about 9 years. Children included in the study were predominately male (78.3%). Parent-reported child ethnicities were as follows: 58.8% Caucasian, 8.4% African Origin, 3.8% Asian, 0.8% Aboriginal, 2.3% Latin American, 1.5% Other, 24.4% Multiethnic. Parents included in the

ASSESSING PARENTAL READINESS

sample had above-average levels of education, with 70.5% endorsing graduating with a post-secondary degree.

The PRFCS demonstrated good internal consistency, with cronbach's alpha values of 0.70 for Precontemplation, 0.82 for Contemplation, and 0.73 for Action (Wade & Andrade, 2015). A confirmatory factor analysis indicated that, while both the 17- and 21-item versions tested demonstrated adequate fit, the abbreviated, 17-item structure initially supported by Brestan et al. (1999a) provided the better fit to the data. The authors tested a second-order factor of overall Readiness and found that a simple, easy to compute indicator of overall parental readiness strongly correlated with the second-order Readiness factor. The composite was obtained by summing Contemplation and Action scores, then subtracting Precontemplation scores. The ability to quickly and easily compute an index of parental readiness was highlighted as a major strength of the scale.

Wade and Andrade (2015) also provided support for the convergent validity of the PRFCS by examining the relationship between PRFCS scores and parent and child behaviors. Parents endorsing higher scores on Precontemplation perceived themselves as less inconsistent with discipline and their child as having fewer socio-emotional and behavioral problems. Conversely, parents in the Contemplation stage endorsed higher levels of inconsistent parenting, and those in the Contemplation and Action stages reported higher levels of socio-emotional and behavioral problems in their children. Parents with higher levels of Readiness missed fewer sessions relative to parents with lower levels of Readiness. Wade and Andrade posited that parents with higher levels of readiness may be more willing to perceive and endorse child problem behaviors as well as problematic parenting practices. Alternately, parents further along the readiness continuum may have children with higher levels of problem behavior and perceive

ASSESSING PARENTAL READINESS

more inconsistencies in their parenting practices, perhaps as a result of feeling less efficacious in the parenting role.

Wade and Andrade (2015) concluded that the PRFCS is a “psychometrically and clinically sound” instrument (p. 192). The authors note several limitations to the study, however, including a primarily female parent sample and lack of clinical cutoffs for the measure. Further study of the PRFCS is needed to provide clinical cutoffs that will inform treatment planning and maximize the clinical utility of the measure.

The Parent Motivation Inventory (PMI)

The PRFCS uses the TTM to classify parents within a stage model, however, another measure, the Parent Motivation Inventory (PMI), uses a continuous model to conceptualize parental readiness and engagement. The PMI is a brief, 25-item measure that assesses caregivers’ readiness to enter treatment for children with conduct problems (Nock & Photos, 2006). The PMI was based on both the motivation literature and motivation for psychosocial treatment and was theoretically designed to assess three facets of motivation: parents’ desire for change in the child, parents’ willingness to change parenting behaviors, and parents’ perceived ability to change those behaviors (Appendix A; Nock & Photos, 2006). One potential weakness of the measure is that there is no method to assess response biases, such as reverse-scored items.

Only one study to date has tested the PMI (Nock & Photos, 2006). The PMI has been used in a second study, but measurement psychometrics were not reported (Stark et al., 2011). The measure was designed to assess parent readiness and motivation in the motivational enhancement intervention used in Nock and Kazdin (2005), and thus represents the same sample. The PMI was piloted in a clinical sample of families in outpatient treatment for children with conduct problems. Seventy-six families completed the measure in the validation study. The

ASSESSING PARENTAL READINESS

sample consisted predominately of mothers (90.6%), and the caregivers ranged in age from 20 to 66 years old. Caregivers' self-identified ethnicity was 60.9% European American, 26.6% African American, 6.3% Hispanic, and 6.3% biracial. Just under half of the sample (45.3%) was married, with 15.6% divorced, 7.8% separated, and 1.6% widowed. Forty-two percent of the sample was receiving public assistance at the time of intervention. Children ranged in age from 2 to 12 years. Seventy-three percent of the children were males, a ratio that might be considered a representative sample of the target population given the similar prevalence rates of conduct problems in preadolescent children (Nock & Photos, 2006). Caregivers in the study also completed a demographic form and the Barriers to Treatment Participation Scale (BTPS; Kazdin, Holland, Crowley, & Breton, 1997) to assess individual and family level factors that might be related to readiness. Treatment attendance was also monitored as an index of adherence and engagement.

A principle component analysis (PCA) conducted on the PMI suggested that scores were best accounted for by one composite readiness score rather than the three subscales (Nock & Photos, 2006). The PMI performed well in terms of reliability. The PMI demonstrated strong internal consistency (Cronbach's $\alpha = .96$) and test-retest reliability between the first and fifth sessions ($r[39] = .76, p < .001$). The three subscales had good to strong internal consistency (Cronbach's $\alpha = .77 - .96$) and were intercorrelated, with correlations ranging between .62 to .97 for all three subscales, and each subscale correlating with the PMI total ranging from .87 to .97.

With respect to validity indices, Nock and Photos (2006) tested the predictive validity of the PMI and found that parent motivation did not relate to experienced barriers to treatment at the first session. However, the relationship between motivation and experienced barriers changed

ASSESSING PARENTAL READINESS

between the first and third assessment time points, such that the change in parent motivation from the first to fifth session predicted self-reported barriers to treatment. In turn, barriers to treatment were a significant predictor of the number of sessions attended, suggesting that parent motivation mediated the relationship between perceived barriers and treatment attendance. The analyses indicated that change in parent motivation over time was not associated with the number of sessions attended. Additionally, contrary to previous findings, parent motivation was not associated with any demographic characteristics, such as age of the child or socioeconomic status. Parents in the study reported a high level of readiness overall, with the mean item endorsement equaling 4.6 out of 5. The high level of reported readiness in the validation sample raises concerns about potential ceiling effects as well as the representativeness of the sample, as families involved in a research study for child behavior problems may not be representative of the larger parenting population presenting at an outpatient mental health clinic.

Nock and Photos (2006) concluded that the PMI is a valid measure of parent readiness to enter treatment. It lays a solid foundation for further research to examine the effect of parent readiness on treatment engagement as well as appropriate, valid assessment practices related to this construct. Both the PRFCS and PMI have preliminary support as measures of parental readiness; however, both have limitations and lack norms to aid in interpretation. Further research is needed to understand parental readiness to enter treatment, the role of parental readiness in treatment engagement, and the measures being used to assess this dynamic construct.

The Readiness, Efficacy, Attributions, Defensiveness, and Importance Scale (READI)

The READI was designed by Brestan, Ondersma, Simpson, and Gurwitch (1999b) to provide an index of parental readiness to engage in treatment. The READI was comprised of 61

ASSESSING PARENTAL READINESS

items and examined seven constructs related to treatment engagement: readiness to change parenting style, parental self-efficacy to change parenting behaviors, parental attributions about the child's behavior, defensiveness or openness to change, and parents' perceived importance of treatment. Additionally, the original READI included two scales to enhance the clinical utility of the scale: Belief in Corporal Punishment and a Lie Scale.

An unpublished study examining the psychometric properties of the READI indicated that the Readiness and Importance scales had the strongest internal reliability (Powe et al., 2011). A short version of the READI (READI-SF; Appendix B) was then designed with the 17 items from the two scales, which were designed to assess different components of engagement: readiness and perceived importance of treatment (Chaffin et al., 2009; DiClemente et al., 2004; Miller & Prinz, 2003; Nock & Ferriter, 2005; Spoth & Redmond, 1995; Spoth, Redmond, Kahn, & Shin, 1997). The Readiness scale was written to tap into caregivers' openness to change parenting behaviors (e.g., "I'm ready to change my parenting," "I need to learn to be more consistent"), and the Importance scale surveys the relative importance caregivers are placing on the problem at this time (e.g., "Bad things could happen if my child's behavior doesn't get better," "I have problems that are more important than my child's behavior right now"). Thus, scores on the measure could reflect different factors impacting a caregiver's engagement in services, such as external barriers or a perceived lack of child behavior problems.

A recently published third study of the READI was conducted with a clinical sample of parents with children ages 2 to 7 presenting for behavioral parent training (Niec et al., 2015). The study consisted of primarily Caucasian participants (96%) with an average of 13 years of education. Psychometric examination of the READI indicated that six of the original seven scales demonstrated good internal consistency, with alphas ranging from 0.71 to 0.87 (Niec et

ASSESSING PARENTAL READINESS

al., 2015). Consistent with the Powe et al. (2011) study, the Attributions scale demonstrated poor internal consistency (Cronbach's $\alpha = .28$). It is hypothesized that the short form of the READI used in the current study will provide an adequate proxy of scores for the full measure and increase clinical utility by requiring less time for completion.

Measuring Readiness in Prevention Models

As noted earlier, parental engagement in preventive interventions is important for promoting healthy psychosocial development in young children who are at-risk for or are demonstrating behavior problems. Within the prevention context, readiness measures could maximize resource utilization and early identification of families who would benefit from and are likely to engage in services. While there are promising measures of parental readiness emerging in the literature, they have all been tested within clinical populations. There are unique measurement issues related to preventive interventions that must be considered, as the scope and aims of preventive interventions differ from traditional intervention research (Proctor & Brestan-Knight, 2016). One such consideration is that the psychometric properties of previously validated measures may differ when used in a novel sample. Non-referred community samples represent a unique normative group relative to clinical samples, and measures should be studied within the population of intended use (Flay et al., 2005; Fok & Henry, 2015; Gottfredson et al., 2015; Proctor & Brestan-Knight, 2016). For example, the level of parental readiness sufficient to motivate a parent to engage in a brief preventive intervention might differ from that required for a parent to engage in more intensive therapy services. Additionally, community samples provide a more heterogeneous population within which to examine the construct of parental readiness and factors that may impact readiness to change parenting behaviors.

ASSESSING PARENTAL READINESS

Parental readiness has strong implications for both preventive and traditional interventions. A better understanding of parental readiness in this context would provide clinicians and researchers an additional tool to identify families for preventive interventions, understand parental engagement, and maximize resource utilization. Moreover, extending the study of parental readiness into preventive interventions provides a more elaborate understanding of the parental readiness construct, as we are able to better understand parental readiness along a continuum in addition to the heterogeneous factors that impact readiness.

Goals of the Current Study

Additional research examining measures that quantify treatment readiness are needed in order to further our understanding of factors related to engagement in parent training interventions, especially within a preventive intervention context. The Wade and Andrade (2015) examination of the PRFCS and the Nock and Photos (2006) validation of the PMI provide good starting points for the field, but more research is needed to understand the complex, multi-faceted nature of treatment readiness and its interaction with individual variables. Measures of parental readiness are underdeveloped, and the READI-SF contributes meaningfully to the study of parental readiness measures by assessing readiness for parent behavioral change along a continuum. Relative to the READI, the READI-SF possess clinical utility as it is a brief, one-page measure that can be completed more quickly than the longer form, reducing respondent burden. While the two readiness measures (READI-SF, PMI) and the TTM measure (PRFCS) tap into overlapping constructs, they also offer unique strengths. However, direct comparison among the instruments is not presently possible because the measures are understudied.

The present study adds to the extant literature in three ways. First, it provides an initial validation of the READI-SF in a community sample and an independent validation of the PMI.

ASSESSING PARENTAL READINESS

The use of a community sample is unique to the present study and will help to advance our understanding of readiness to change parenting behaviors within a preventive intervention framework. Second, the study will be the first to examine the predictive validity of the READI-SF, or any parental readiness measure, within a preventive intervention. Ultimately, we are looking to answer the question of whether readiness is a helpful construct for examining parental engagement in preventive services. This study provides a direct examination of the READI-SF as a predictor of attendance at a preventive parent training meeting. Lastly, to the author's knowledge, no study to date has examined the convergent validity of two measures assessing parents' readiness to engage in a parenting intervention. The construct validity of the READI-SF and PMI will be examined to begin addressing this gap, furthering our understanding of the construct being measured. The direct comparison of two measures examining parental readiness will allow us to assess similarities and unique contributions of each measure being examined.

Aims and Hypotheses

The first aim in the present study was to provide psychometric validation of the READI-SF in a community sample. While the READI-SF was theoretically designed to assess two constructs, we did not make specific predictions about the number of factors that would emerge, given the lack of empirical data to inform this prediction (Hypothesis 1a). We also predicted that the READI-SF total score and scales would demonstrate adequate psychometric properties, including validity and reliability (Hypothesis 1b). It was hypothesized that scores on the READI-SF would demonstrate predictive validity by predicting parental attendance at a preventive parenting group, thus providing an index of clinical utility. Additionally, we predicted that the READI-SF and PMI would demonstrate strong convergent validity for assessing the construct of

ASSESSING PARENTAL READINESS

parental readiness to enter treatment, providing evidence supporting the construct validity of both measures.

The second goal of the study was to explore how self-reported family stressors relate to parent readiness, as measured by the READI-SF total score. Given the inconsistent findings in the literature related to individual characteristics and readiness, the hypotheses were non-directional (Hypothesis 2). Characteristics from the demographic data were used to test the relationship between readiness and family stressors (Girvin, 2004; Gopalan et al., 2010; Nix et al., 2009; Spoth et al., 1997). It was predicted family and child characteristics, including annual income, number of financial stressors, parent age and education, and parent-reported child difficulties (e.g., behavior problems, health problems, learning problems) would be related to readiness to engage in the preventive intervention.

Lastly, we aimed to investigate the relationship between child behavior problems and parent readiness to enter treatment. It was hypothesized that ratings of child disruptive behavior, as measured by the Eyberg Child Behavior Inventory (ECBI; Eyberg & Pincus, 1999), would predict increased levels of parental readiness to engage in services (Hypothesis 3; Berkovits et al., 2010; Garvey et al., 2006).

Method

Participants

The participants represent a community-based sample and were recruited from an urban charter school that includes grades Pre-K3 through high school. Residency in the city where the school is located is the only prerequisite for registration. The reported racial and ethnic profile of the school is 99% African American and 1% Hispanic. Eighty-eight percent of the students

ASSESSING PARENTAL READINESS

receive free and reduced lunch. Approximately 300 children are enrolled in the program each year, on average.

All parents of children enrolled in preschool and kindergarten at the charter school during the academic years of 2013-2014, 2014-2015, and 2015-2016 were recruited for the present study. Participants included caregivers of children ages 3 to 7, with an average parent age of 29.58 years ($SD = 5.74$). A total of 128 screening packets were received, with some parents completing packets for multiple children or across multiple years. The average child age in the sample ($n = 125$) was 3.98 ($SD = 0.95$). Parents in the sample self-identified their ethnicity as predominately Black/African American (92.2%), followed by Other (1.9%), and White/Caucasian (1%), with a similar distribution for identified children in the sample. A majority of parents included in the sample were single (66%), followed by those who were married/partnered (23.3%) and separated/divorced (7.8%). Parents represented diverse educational and socio-economic backgrounds, with a majority of parents having completed high school or obtained a GED (32%), some college or vocational school (35%), or college (21%). Please see Tables 1 and 2 for additional demographic information.

Procedure

Approval from the Auburn University Institutional Review Board (IRB) was obtained in August 2013 and has been maintained since that time. The current study was a component of a larger preventive intervention study and the procedure for the larger study is outlined as it pertains to the questions addressed in this project. The larger study implemented an abbreviated version of an empirically supported intervention using the materials for PCIT-PC developed by Berkovits et al. (2010). The school psychologist at the charter school provides after-school informational meetings for parents each academic year. We obtained permission from the school

ASSESSING PARENTAL READINESS

to implement and evaluate a preventive parent training group based on the PCIT-PC materials during after-school meetings for two academic school years. Additionally, we collected screening packets from families before the groups and completed five-week follow-up phone calls with families who attended the groups.

The current study consisted of data collection across three academic years. The nature of the larger project changed during the course of implementation. During the first round of data collection (academic year 2013-2014), two parenting groups were offered, a PCIT-PC group (modeled after the Berkovitz et al. primary care version of PCIT) and a control group. One parenting group (PCIT-PC) was offered during the second year (2014-2015), and no parenting groups were offered during the third year (2015-2016). The third round of data collection focused on collecting the screening packets only (described below). The incentive for families to complete the packets remained the same across time points, except that parent meetings were not offered during the third round of collection. The incentive for returning the packets was permission for the target child to wear casual dress for one day instead of the required school uniform.

Screening packets were administered to assess parent-rated child disruptive behaviors. The screening packets included: a cover letter explaining the project; two copies of consent forms (one for the families, one to sign and return); the Eyberg Child Behavior Inventory (ECBI; Eyberg & Pincus, 1999); and the Readiness, Efficacy, Attributions, Defensiveness, and Importance Scale – Short Form (READI-SF; Proctor & Brestan-Knight, 2015). The Parent Motivation Inventory (PMI; Nock & Photos, 2006) was included in screening packets during the second and third rounds of data collection.

ASSESSING PARENTAL READINESS

Screening packets were assembled at Auburn University and mailed to the school psychologist for distribution in September 2013, January 2015, and September 2015. The packets were distributed to all children enrolled in preschool (Pre-K3 and Pre-K4) and kindergarten by placing a packet in each child's backpack. Caregivers interested in participating were asked to complete the packet and return the packet to the school psychologist, who coordinated packet return and collection over approximately one month. After confirming that consent forms were signed, the completed measures were de-identified then returned to Auburn for scoring and data entry. Completed measures were scored and entered into a database by the author and trained undergraduate research assistants. Item responses were entered and verbally rechecked for accuracy. The author contacted families via phone during the second and third rounds of data collection to obtain missing questionnaire data. Families were not contacted during the first round of data collection for missing data. The first round was a pilot for the larger study, and this adjustment was added to the IRB for subsequent data collection after reviewing forms returned during the first round.

When groups were offered (rounds one and two), children rated above the clinical cutoff on the ECBI Intensity scale (≥ 131) were referred out of the study. This was done to ensure that families received an appropriate level of intervention, because the preventive intervention provided was intended to be brief and limited in scope. During the first round, families with children below the clinical cutoff on the ECBI were randomly assigned to one of two after-school parent groups. During the second round, all families who completed a screening packet and were not referred out of the study were invited to the group. Invitation letters were distributed in children's backpacks. The school psychologist also invited several families who did not complete the initial research packet or who were screened out of the research study to

ASSESSING PARENTAL READINESS

attend the meetings based on the families' demonstrated need (e.g., child behavior problems) and anticipated benefit. As compensation for attending the groups provided during rounds one and two of data collection, families were eligible to be entered into two raffle drawings for a \$25 gift card: one for attending the groups and a second for completing the five-week follow-up measures.

Measures

Parent Motivation Inventory (PMI). Information about the PMI (Nock & Photos, 2006) has been previously presented in this manuscript. Item answers are scored on a 5-point Likert scale, where 1 is Strongly Disagree and 5 is Strongly Agree. The total score is derived by summing the items. Total scores range from 25 to 125, with higher scores indicating higher parent motivation for intervention. The PMI is provided in Appendix A. Cronbach's alpha for this sample was .98.

Readiness, Efficacy, Attributions, Defensiveness, & Importance Scale – Short Form (READI-SF). Psychometric information about the READI-SF has also been presented earlier in this manuscript. Items on the READI-SF are rated on a 5-point Likert scale, where 1 is Strongly Disagree and 5 is Strongly Agree. Two items on the READI-SF are reverse-scored to assess response bias. To score, the items within scales are summed, then the two scale scores are summed for an overall readiness score. Scores on the Readiness scale range from 8 to 40 and from 9 to 45 on the Importance scale. Total scores range from 17 to 85, with higher scores indicating greater parental readiness to engage in services. The full scale is provided in Appendix B. Cronbach's alpha on the overall readiness score for this sample was .94.

Demographic questionnaire. The demographic questionnaire collected the child's name, date of birth, gender, ethnicity, and caregiver report of child problems (e.g., behavior problems,

ASSESSING PARENTAL READINESS

mental health problems, learning problems, or health problems) as well as information regarding the caregiver's relationship to the target child, name and contact information, age, ethnicity, education, and relationship status. The demographic questionnaire also surveyed family factors, including: annual household income, current financial problems, and the number of adults and children living in the home. Please refer to Appendix C for a copy of the questionnaire.

Eyberg Child Behavior Inventory (ECBI). The Eyberg Child Behavior Inventory (ECBI) is a 36-item, norm-referenced, parent-report measure of child disruptive behavior in children ages 2 through 16 (Eyberg & Pincus, 1999; Funderburk, Eyberg, Rich, & Behar, 2003). The scale measures behavior on two dimensions: a 7-point intensity scale that indicates how often the behaviors occur, and a dichotomous (yes-no) problem scale that assesses whether the parent perceives the behaviors as problematic. Scores range from 36 to 252 for the Intensity Scale and 0 to 36 for the Problem Scale, with an Intensity score of 131 or higher or Problem score of 15 or higher indicating clinically significant elevation (Eyberg & Pincus, 1999). The ECBI has demonstrated adequate psychometrics, including strong internal reliability and test-retest reliability (Eyberg & Pincus, 1999; Funderburk et al., 2003). The ECBI has demonstrated convergent validity with other well-validated child behavior scales and observational measures of dyadic functioning, and the ECBI has shown discriminative validity and predictive power among conduct disordered and non-referred samples (Boggs, Eyberg, & Reynolds, 1990; Eyberg & Pincus, 1999; Rich & Eyberg, 2001; Weis, Lovejoy, & Lundahl, 2005). Importantly, the ECBI has demonstrated sensitivity in measuring subclinical behavior problems and treatment changes (Berkovits et al., 2010). Chronbach's alpha for this sample was .95 for the Intensity scale and .93 for the Problem scale.

ASSESSING PARENTAL READINESS

Caregiver Attendance at Group. As part of the larger study, caregivers participating in rounds one and two of data collection were invited to attend a one-time after-school parenting meeting that included didactics, hands-on activities, and role-plays. Caregiver attendance at group was used to examine the predictive validity of the READI-SF.

Primary Analyses

The majority of analyses were conducted using SPSS (version 23). The exploratory factor analyses were conducted with Comprehensive Exploratory Factor Analysis (CEFA; Browne, Cudeck, Tateneni, & Mels, 2008), and missingness statistics were obtained from MPlus. Descriptive statistics were examined to summarize characteristics of the sample. To address the first hypothesis related to READI-SF psychometrics, factor structure and indices of validity and reliability were examined (Cicchetti, 1994; Cook & Beckman, 2006). No pre-existing empirical evidence existed with which to form a priori hypotheses about the measure's underlying factor structure (Brown, 2006; Fabrigar, Wegener, MacCallum, & Strahan, 1999; Floyd & Widaman, 1995; Williams, Brown, & Onsmann, 2012). Thus, the factor structure of the READI-SF was tested through exploratory factor analysis (EFA; Brown, 2006; Fabrigar et al., 1999; Floyd & Widaman, 1995; Kline, 1994; MacCallum, Widaman, Zhang, & Hong, 1999; Park, Dailey, & Lemus, 2002; Williams et al., 2012). READI-SF psychometrics were examined two ways, once using first-time packets only ($n = 103$) and once using all available forms ($n = 128$). Results for both are reported. The author elected to retain the full sample for the factor structure, and the justification for this decision is explored in the Results section. The internal consistency of the READI-SF total score was computed using the cronbach's alpha from all available forms. Intraclass correlations were examined for the total score and subscales. Internal consistency and

ASSESSING PARENTAL READINESS

the factor structure for the PMI were also examined. Only parents' first PMI forms were used for analyses.

Missing data were examined, and missingness was determined to be less than 5% in any given cell. Analyses were conducted using listwise deletion for all missing data in the remaining analyses; however, the tests failed to reach significance, likely due to lack of statistical power. Thus, based on the low amount of missingness in the data and need to maximize sample size, mean scores were computed for all measures to provide an accurate representation of individual's responses. Measures were not included if responses were missing for more than 20% of the items.

Subsequently, a series of binomial logistic regressions were conducted to test the predictive validity of the READI-SF total score and scales in predicting attendance at a parent-training group ($n = 100$). The mean scores for the total score and three scales supported in the factor analysis were used. All individuals from rounds one and two of data collection were included in the analyses, including individuals who completed the screening packet and were invited to a group during round one. Fifteen individuals attended the groups. One invited individual from the first round attended the PCIT group and was invited to attend the PCIT group again during the second year. This parent's second READI-SF and attendance at the group were excluded from the analysis, because the likelihood of attendance might be affected since the content covered in the group would have been redundant. In total, 14 of 100 eligible parents attended the parent training group after this parent's second packet and attendance at group were excluded from the analysis.

To address the second hypothesis, an intraclass correlation between READI-SF and PMI mean scores was obtained to provide an index of construct validity (Blanchard, Morgenstern,

ASSESSING PARENTAL READINESS

Morgan, Labouvie, & Bux, 2003). Parents who completed both rounds two and three of data collection were excluded from the analysis. Parents' first PMI was used to examine this hypothesis ($n = 58$). Fifty-seven READI-SFs were available for the analysis. A small number of parents within this group ($n = 5$) had previously completed the READI-SF during the first round. However, the data for these families were retained, because the READI-SF completed during round one was completed for a sibling, not the target child included in this analysis. Thus, the five retained READI-SFs represent unique readiness and child behavior ratings.

A multiple regression was conducted to test the third hypothesis examining the role of child, parent, and family stressors on readiness (Howell, 2010). Only parents' first screening packet was included in the analysis to prevent over-representation of the characteristics tested ($n = 86$). Mean READI-SF Total scores were used to examine the relationship among the variables.

Lastly, a linear regression was conducted to address the fourth hypothesis that child disruptive behavior would predict parental readiness. Only parents' first screening packets were used in the analysis, and mean scores were used for the ECBI Problem, ECBI Intensity, and READI-SF scores ($n = 96$).

Results

Approximately 905 packets were distributed across the three rounds of data collection, and 128 packets were returned, for an overall return rate of 14%. During rounds one and two of data collection, 101 screening packets were returned. Of these, 12 families were provided referral information (i.e., referred out of the study) and 89 were invited to a parenting group. Fifteen (15.15%) of the eligible 101 families attended a group meeting. An additional 27 packets were returned during round three of data collection. Twenty-five parents completed more than one

ASSESSING PARENTAL READINESS

packet, either for a sibling or the same child across different years, resulting in 103 independent parent packets.

Psychometric Properties

An exploratory factor analysis (EFA) was conducted to examine the factor structure of the 17-item READI-SF. Maximum likelihood estimation with oblique rotation and Kaiser row weights was used to assess model fit. After being recoded the same direction as the other items, the reverse-scored items on the READI-SF (item 11, “I will work on my child’s behavior problems later,” and 15, “I have problems that are more important than my child’s behavior right now”) were negatively correlated with all other items, and scale analysis in SPSS indicated that reliability would be improved if the items were deleted. The items were tested within two through six factor models but did not load cleanly on any factors, nor did they form a unique factor. Overall, it appeared the items were not reliable indicators of scores on the READI-SF. Therefore, the items were removed and excluded from further analyses.

Factor structure of the READI-SF was tested in two, three, four, five, and six factor models. A table of model fit indices for each model is provided in Table 3. The scree plot (Figure 1) showed inflexions that justified retaining three or four factors. Eigenvalues of the unreduced sample correlation matrix are provided in Table 4. A parallel analysis was conducted and supported a two-factor model (Figure 2). However, the fit indices of the two-factor structure were inadequate (RMSEA = 0.14, 90% CI = 0.12, 0.16), and the Tucker-Lewis fit index was .80, indicating a poor degree of fit. The two-factor model was not preferred due to the poor degree of model fit. As expected, the fit indices improved with the addition of factors; however, the addition of factors decreased model parsimony and resulted in poor factor loadings. The four-factor structure of the READI-SF was examined, as it demonstrated gains in model fit above the

ASSESSING PARENTAL READINESS

three-factor model. The fit indices were promising (RMSEA = 0.09, 90% CI = 0.06, 0.11, $TL_m = .92$). However, this model was not preferred, as the factor loading structure resulted in factors with few items, including one two-item factor. The factor loadings for the four-factor model are provided in Table 5. The small number of items within some of the factors was judged to be too small to reliably assess or sample from a unique construct. Additionally, the four-factor model was less parsimonious. Lastly, a five-factor model was examined, because of the excellent model fit (RMSEA = 0.05, 90% CI = 0.01, 0.09, $TL_m = 0.97$). However, the five-factor model resulted in one factor that consisted of one item, indicating poor determinacy and demonstrating poor factor loadings. Thus, a three-factor model was selected to maximize model fit and interpretability.

Fit indices revealed that a three-factor model provided mediocre to reasonable fit to the data, with the lower bound of the confidence interval being in the reasonable range (RMSEA = 0.10, 90% CI = 0.08, 0.13). The factor loading and correlation matrices for a three-factor solution are presented in Tables 6 and 7. The Tucker-Lewis fit index provided support for adequate fit ($TL_m = 0.89$). The eigenvalues also supported the choice of a 3-factor model using Kaiser's eigenvalue-greater-than-one criteria (Kaiser, 1960; Table 4). Additionally, the three-factor model was the most interpretable model based on factor loadings. Items 5, 7, and 14 significantly cross-load onto other factors within the three-factor model. Simple structure does not prohibit cross-loading, thus the author did not choose to discard these items from the measure due to concerns about inadequately sampling the theoretical domain (MacCallum, 2004).

Taken together, the convergence of the fit indices and model interpretability resulted in a three-factor solution being retained. Of the 15 items retained in the analysis, five items loaded highly onto Factor 1, four items onto Factor 2, and six items onto Factor 3. Table 8 provides the

ASSESSING PARENTAL READINESS

unique variances and communalities for the three-factor model. The items that cluster on the same components suggest that Factor 1 represents Importance, Factor 2 reflects Treatment Readiness, and Factor 3 relates to Readiness to Change. The factors were moderately correlated, and the correlations are provided in Table 9.

The three-factor EFA was conducted for two sets of data: one using participants' first cases only and one using all available completed READI-SFs, including families who completed the measure twice. The sample for the first-case only group contained 103 forms for analysis, whereas the latter contained 128 forms. The EFAs supported the same factor structure in both models. The author elected to retain the model including all available forms for interpretation for two reasons. First, the fit indices were marginally better for the model including all completed forms. Secondly, the increased number of participants in the analysis increased the interpretability of findings. Tables 10 and 11 provide the factor loadings from both models to aid in comparison between the models.

Once the EFA was complete, reliability indices were obtained. Consistent with hypotheses, the READI-SF Total Score initially demonstrated strong internal reliability, with a cronbach's alpha of .91. The reliability improved once items 11 and 15 were removed, resulting in an alpha of .94 for the 15-item READI-SF. Importance (.88), Treatment Readiness (.83), and Readiness to Change (.89) all demonstrated strong internal reliability. All scales were significantly correlated with READI-SF total scores at $r(126) = .85$ or higher.

The factor structure of the PMI was also examined. Five parents filled out two PMI forms, and only first-case forms were included in the analysis for a sample of 58. Several iterations, including one-, two-, and three-factor models, all had unacceptable fit ($RMSEA \geq 0.17$). It is likely that the sample size was too small to determine the factor structure, with a

ASSESSING PARENTAL READINESS

sample of only 58 forms. Alternatively, these initial results may suggest that the one-factor and three-factor models initially proposed by Nock & Photos (2006) do not hold within the sample included in the present study.

Measurement Validity

A binomial logistic regression was conducted to assess the predictive validity of the READI-SF. Specifically, it was hypothesized that the READI-SF would predict parents' attendance at the one-time parenting group, with higher readiness scores associated with increased rates of attendance. This hypothesis was supported, as the READI-SF total scores significantly predicted attendance. The READI-SF mean total score model was significant, $\chi^2(1) = 10.1, p = .001$. Using different indices, we can estimate a range for the amount of variance accounted for by the model. The Cox and Snell and Nagelkerke R^2 indices indicate that readiness accounted for 10% to 17% of the variance in the model. The model correctly predicted attendance based on readiness scores for 84.8% of the cases. Looking individually at the scales, Readiness for Change was the strongest single predictor, significantly predicting attendance and accounting for 14% to 25% of the model variance. Treatment Readiness was also predictive. Importance trended in the expected direction but fell short of independently predicting attendance. Table 12 contains additional information about results for the scales and total scores.

An intraclass correlation was obtained between the READI-SF and the PMI total scores to provide an index of convergent validity. The hypothesis was partially supported, as the READI-SF demonstrated moderate convergent validity with the PMI, $r(57) = .33, p = .01$. Interpretation of this relationship suggests that the READI-SF and PMI are measuring similar constructs, but that a high degree of the content included in the two measures diverges into unique constructs. Based on summary scores, the READI-SF Total Score ($n = 126$) had a mean

ASSESSING PARENTAL READINESS

of 41.5 ($SD = 14.74$), and the PMI ($n = 63$) had a mean of 72.8 ($SD = 27.2$), indicating that mean parental ratings of readiness on both measures were approximately within the middle range of possible scores (READI-SF Total range: 17-85, PMI Total range: 25-125).

Factors Impacting Readiness

A multiple regression was computed to examine child, family, and environmental characteristics previously identified in the literature as relating to readiness (Girvin, 2004; Gopalan et al., 2010; Nix et al., 2009; Spoth et al., 1997). The hypothesis was partially supported, with parent-reported level of financial stress (e.g., none, some, many, difficulty meeting basic needs) emerging as the only significant predictor of readiness, based on READI-SF mean scores. Annual income, parent age and education, and parent-reported child difficulties (e.g., behavior problems, health problems, learning problems) were not significant. Together, the model accounted for 9% of the overall variance. While statistically significant, parent-reported financial stress has a fairly low impact on the overall regression model ($\beta = 0.26$), indicating that this variable does not add significantly to our understanding of variables that impact parental readiness. The results of the regression are provided in Table 13. The Durbin-Watson value ($d = 1.86$) is acceptable, indicating that there is no first order linear auto-correlation in the data. The data did not demonstrate multicollinearity, as reflected by the tolerance scores. Homeostadisticity was also not observed, as indicated in Figure 3. An ANOVA was non-significant ($p = .17$), indicating that some relationships among the demographic variables and readiness scores may be non-linear. Visual inspection of scatter plots suggested weak relationships among the variables and readiness.

The same variables were entered into a regression for the PMI. Similar to findings for the READI-SF, the overall model failed to reach significance and accounted for about 13% of the

ASSESSING PARENTAL READINESS

observed variance in scores. Parent-reported financial distress was not a significant predictor of readiness scores on the PMI. Parent age emerged as significant in the model, with younger parents endorsing higher readiness scores ($\beta = -.31, p = .05$).

Child Behavior Problems and Readiness

A linear regression was conducted to examine the relationship between child behavior problems and parent readiness. The hypothesis was supported, as the analysis revealed that higher mean ECBI Intensity scores and mean ECBI Problem scores were predictive of higher mean READI-SF Total scores. Table 14 provides the findings in the model. Overall, parent-reported child disruptive behaviors (Intensity and Problem scores) accounted for 24% of the variance in READI-SF scores. The Durbin-Watson value ($d = 2.01$) is acceptable, indicating that there is no first order linear auto-correlation in the data. The data did not demonstrate multicollinearity, as reflected by the tolerance scores. Homoscedasticity was also not observed, as indicated in Figure 4. Lastly, the ANOVA was significant ($p < .001$), indicating that the relationships among the ECBI and READI-SF scores are linear.

Discussion

Overall, the current study provides preliminary evidence for the validation and examination of a measure of parental readiness, the READI-SF, and extends our understanding of the construct of parental readiness within a preventive intervention model. It is important to obtain community norms for measures used within the context of preventive interventions (Flay et al., 2005; Fok & Henry, 2015; Gottfredson et al., 2015; Proctor & Brestan-Knight, 2016), and this study is the first to date to examine parental readiness and pilot measures of the construct with a community sample. The findings indicate that the READI-SF performed well in predicting attendance at a preventive parent meeting. Further, the findings related to factor

ASSESSING PARENTAL READINESS

structure and measure correlation highlight the possibility that measures of parental readiness, including the READI-SF and PMI, may perform uniquely within the novel sample. Readiness to change parenting behaviors may require alternative conceptualizations within the prevention model, especially given that parents may not yet identify a strong need for services (Ingoldsby, 2010). Overall, the present study provides preliminary evidence that parental readiness is a relevant construct for preventive parenting interventions and that the READI-SF is able to serve the intended function of meaningfully capturing readiness and subsequent engagement behaviors within the sample.

Importantly, the unique sampling characteristics within this pilot study allowed the author to address some limitations of other studies examining parental readiness. Sampling from a community population generated greater variability in scores and decreased the likelihood of floor or ceiling effects. Ceiling effects on parent-reported readiness was a limitation noted by Nock and Photos (2006) and may be a common concern for these measures, as parents seeking services have demonstrated at least initial investment in the financial and time commitments of attending an intake session and possibly some treatment sessions by the time the measures are completed. Utilizing a community sample allowed for a greater heterogeneity of responses, and allowed for the examination of unique relationships among variables in the present study.

The psychometric properties of the READI-SF were examined in the present study and the results provide a preliminary validation of the measure within a community sample. A three-factor structure of the READI-SF was supported based on fit indices and model interpretability. The three-factor structure suggests that the READI-SF is sampling from central constructs related to parental readiness, including importance, treatment readiness, and readiness to change parenting behaviors. The factors identified reflect several constructs noted as impacting parental

ASSESSING PARENTAL READINESS

readiness to engage in services, including both components of readiness, readiness to change parenting behavior and treatment readiness (DiClemente et al., 2004). Additionally, the READI-SF asks about parents' identification of their child's problematic behaviors. Perceived importance of the problem may relate to perceived barriers, with fewer perceived barriers associated with increased engagement (Nock & Ferriter, 2005; Nock & Photos, 2006). Consistent with the Wade and Andrade (2015) findings, parents' endorsement of items related to importance and readiness may be reflective of increased willingness to identify and report problematic child and parenting behaviors. Overall, the three-factor structure identified is consistent with current literature on constructs related to parental readiness.

The use of a community sample may have influenced the observed factor structure of the READI-SF and the PMI for this study. The READI-SF demonstrated a factor structure different from its theoretical structure. Similarly, the PMI demonstrated a different factor structure than the one observed in the pilot study (Nock & Photos, 2006). The community sample included in this study may possess unique characteristics that impact the context or saliency of items, such as low SES or parent perception of the need for services, as the sample was not treatment-seeking. Alternately, parental readiness as a whole may be more multi-faceted and multiply determined for non-treatment seeking parents. The relative importance of some aspects of readiness, like the importance of engaging in treatment, may be less relevant within a prevention framework.

Findings from the current study suggest that the use of a total score rather than scale scores may be the most useful scoring method for the READI-SF. This pilot provides only preliminary evidence for the three-factor structure of the measure. The factors were moderately correlated and were strongly correlated with total scores, suggesting that the constructs included in the measure are related. Additionally, the use of a single READI-SF score demonstrated

ASSESSING PARENTAL READINESS

predictive validity for attendance at the parenting group, indicating that a unitary score was sufficient in predicting the behavioral outcome. The use of a summary score may maximize the predictive validity of the measure, thereby maximizing the measure's utility. This finding is similar to those of other parental readiness to change measures, such as the PRFCS and the PMI, which both supported the use of a unitary score in the improving measure performance (Nock & Photos, 2006; Wade & Andrade, 2015).

Two important indices of validity were supported for the READI-SF in the present study. In the adult literature, the lack of predictive validity for readiness measures was noted as a limitation of attempts to assess this construct (Littell & Girvin, 2002). In the present study, however, the findings supported the hypothesis that parents' ratings on the READI-SF would predict attendance at a preventive parent training group. The READI-SF accurately predicted attendance at a rate of about 85%. Exploratory analyses related to the predictive validity of the three scales identified in the EFA indicated that Readiness for Change and Treatment Readiness independently predicted attendance, supporting these constructs as related to parental engagement. Importance was positively related to attendance but fell short of independently predicting this behavioral outcome. The Importance scale might perform differently in the present sample compared to a clinical sample, given that these families are not treatment seeking and the majority of children did not present with clinically significant behavior problems.

The predictive validity of the READI-SF is certainly encouraging, given that the study includes a community sample for a preventive intervention, where readiness and perceived importance are likely more heterogeneous than in a clinical setting. Additionally, the intervention provided in our larger study differs from the typical services delivered in a clinical setting, in that parents only had to commit to one session. Families often cite practical barriers as the most

ASSESSING PARENTAL READINESS

pertinent reason for choosing not to engage in services (Garvey et al., 2006; Ingoldsby, 2010; Kazdin et al., 1997). Thus, it is possible that some parents with high readiness might have attended but encountered a scheduling conflict and missed the one opportunity to attend the preventive parenting group. In this case, the measure would appear to have inaccurately predicted their engagement, whereas predictive ability might have improved if the parent had multiple opportunities to engage as we see in a longer-term treatment context. The predictive validity of the READI-SF observed in the current study provides initial evidence that we are beginning to identify and assess parental readiness, but there is room for improvement. While 85% is a certainly a promising start, we would want to see that number increase to maximally assist clinicians and researchers in accurately predicting engagement for families. This is the first study of the READI to move beyond parent self-report measures of engagement and examine the convergence of parent responses on the READI and a behavioral outcome.

The ability of a readiness measure to accurately predict attendance is particularly useful as the field grows in this area. Parental readiness measures with predictive validity for attendance possess a high degree of clinical utility. For example, parents completing the READI-SF during a pre-treatment phone screening or at intake could quickly and easily inform clinicians about parents' risk of premature treatment termination or drop-out and could be used to inform treatment planning. Within a prevention framework, measures of parental readiness could maximize service delivery by efficiently identifying parents who are most likely to engage in services. This may be an especially important use for measures of parental readiness, given the potential barriers to engaging parents in preventive interventions (Becker et al., 2015; Garvey et al., 2006; Gopalan et al., 2010; Lindsey et al., 2014).

ASSESSING PARENTAL READINESS

Additionally, consistent with hypotheses, the READI-SF demonstrated convergent validity with another measure of parental readiness, the PMI. This finding provides support for both measures, as it indicates that both measures are capturing similar constructs, increasing the confidence that both measures are assessing the intended construct. However, the PMI and READI-SF demonstrated some variation, as was demonstrated by the moderate correlation for the two measures. The findings indicate that the READI-SF and PMI are capturing both overlapping and unique aspects of parental readiness, which is consistent with their theoretical design. Notably, the READI-SF is parenting focused and examines parental readiness to change parenting behaviors. The PMI includes readiness to change parenting behaviors, but also theoretically taps into desire to change child behaviors and parental belief in the ability to change parenting behaviors (e.g., self-efficacy; Nock & Photos, 2006). More research is needed to examine the different characteristics of the two measures. Ultimately, a measure of parental readiness should demonstrate strong psychometric performance coupled with consistent predictive validity for parental engagement to support its continued use. This study is the first to the author's knowledge to examine the convergent validity of two measures of parental readiness and provides preliminary evidence in support of their continued use and study.

One area of future development for the READI-SF is to examine readiness over time. In the present study, fourteen parents completed the READI-SF twice across different academic years. Post-hoc analyses of test-retest reliability indicated that parents' ratings on the READI-SF were not consistent across time points, $r(14) = .34, p = .24$. These findings were consistent with the author's expectations, in that readiness to engage in services is a dynamic construct that might be expected to vary between the two administrations for many reasons. Nock and Photos' (2006) findings indicated strong test-retest reliability for the PMI when measured between the

ASSESSING PARENTAL READINESS

first and fifth treatment sessions, $r(39) = .76, p < .001$. However, the latency between time one and time two in the present study was at least nine months. Early childhood is a time of rapid developmental change, and it is likely that children's behavior (both at home and in school) and families' situations might demonstrate significant variability across these time points (Gardner & Shaw, 2008). During the preschool years, there may be periods of increased noncompliance or temper tantrums that are within normative, developmental expectations or that become more pervasive and indicate clinically significant behavior problems (Wakschlag et al., 2007). Either could temporarily impact parental readiness to seek services, given that parents of children with increased disruptive behavior often endorse higher levels of readiness (Berkovits, O'Brien, Carter, & Eyberg, 2010; Garvey et al., 2006; Wade & Andrade, 2015). Similarly, familial stressors may change over the course of a year. Changes in parents' ability to manage financial or housing stressors might differentially impact the perceived importance of child behavior. Thus, the demonstrated lack of test-retest reliability is not judged to be indicative of measure failure but rather as capturing variation across development. In order to determine the test-retest reliability of the READI-SF more accurately, it is recommended that future studies include a more systematic evaluation of the measure, including assessment points that are closer in time.

The present study also examined the relationship between child, family, and environmental characteristics and readiness to engage in services. Mixed results were observed for the impact of parental and family variables on caregiver self report of readiness to engage in services for our sample and study hypotheses were partially supported. Similar to the findings in Nock and Photos (2006), demographic characteristics were not strongly related to readiness. The relationship among these variables and parental engagement have been inconclusive in the broader literature (Armbruster & Kazdin, 1994; de Haan et al., 2013). Parent-reported financial

ASSESSING PARENTAL READINESS

stress emerged as the only predictor of parental readiness on the READI-SF, with increased financial stress associated with increased readiness to engage in the preventive parenting group. The finding was statistically significant but demonstrated a weak relationship, indicating that financial stress may not meaningfully predict parental engagement. This finding contradicts the directionality of other findings in the literature, where increased financial stress has been suggested as a barrier to services (de Haan et al., 2013; Staudt, 2007). However, poverty has been observed as a consistent and significant risk factor for children in the development of child behavior problems (Yoshikawa, Aber, & Beardslee, 2012). Families included in the sample of this pilot study were predominately low socio-economic status. Post-hoc analyses revealed that mean ECBI Intensity scores were moderately negatively correlated with annual income, such that lower income was associated with increased ratings of child disruptive behavior, $r(95) = -.2$, $p = .05$. No relationship was observed between ECBI Problem scores and annual income. Thus, the relationship between parental report of increased financial stress and readiness might be related to the finding that child behavior problems are predictive of increased parental readiness, with poverty operating as a risk factor for these behavioral difficulties.

Other interpretations of the observed relationship are possible. Parent-identified financial stress may have served as an index of overall stress. No explicit measure of parental stress was collected to test this hypothesis, but increased parenting stress has previously been associated with higher ECBI scores (Eyberg, Boggs, & Rodriguez, 1992). Alternately, some items may have been interpreted differently by families experiencing significant financial stress. For example, the item, "If things don't change, my child's future could be hurt," could be interpreted more broadly beyond child behavior to include financial, housing, or other stressors. Given that the PMI did not demonstrate a similar relationship with financial stress, it will be important to

ASSESSING PARENTAL READINESS

examine whether the READI-SF performs differently for families experiencing financial distress. More research is needed to understand how child, family, and environmental characteristics may influence parental readiness and service engagement, especially within a preventive intervention model.

Lastly, the relationship between child disruptive behaviors and parental readiness was examined. Consistent with hypotheses, increased child disruptive behaviors were found to predict increased parental readiness to engage in services. Consistent with the conclusions in the article by Wade and Andrade (2015), increased ratings of parental readiness could be associated with caregivers perceiving themselves as less efficacious or as inconsistent in the parenting role and perceiving their children as having increased problem behaviors. Thus, caregivers with these views may be more open to change parenting behaviors. Overall, findings from the current study support the conclusion that parents who report increased disruptive behavior problems in their children may be more likely to seek services (Berkovits et al., 2010; Garvey et al., 2006; Nix et al., 2009). The examination of this question within a community sample may uniquely elucidate this relationship, as both child disruptive behaviors and parental readiness were drawn from a more normally distributed sample compared to a clinical sample.

Limitations

This study has several notable limitations. First, the overall participation rate of 15% was low. Participation has been noted as a challenge for other preventive intervention trials, with average rates of enrollment estimated at 20 to 25% with some as low as 13% (Garvey et al., 2006). It is possible self-selection occurred that may limit the generalizability of the study. Additionally, the sample included in the study may not be representative of a true community sample, given the unique characteristics of the school environment (e.g., highly motivated staff,

ASSESSING PARENTAL READINESS

college-preparatory curriculum). Relatedly, sample size could have impacted findings related to the factor analysis and the association of child and family variables with readiness. There also may have been a lack of power to detect relationships among the specific family variables and readiness where true relationships exist. Overall, the smaller sample size impacts the confidence with which conclusions can be drawn from the current study.

The sample was fairly homogeneous, representing predominately low socio-economic status African American families in an urban area. Education level and parents' reading level may have impacted some parents' responses to the measures. The sample consisted of predominately low-income and ethnic minority families, who may have been at increased risk for poorer treatment outcomes or treatment participation (de Haan et al., 2013; Fernandez & Eyberg, 2009; Gopalan et al., 2010; McKay & Bannon, 2004; Prinz & Miller, 1994; Staudt, 2007). Additionally, the intervention might have had low perceived relevance to families, given that it was prevention-focused and targeted parents of children without clinically elevated behavior problems (Ingoldsby, 2010). Thus, the results from the current study may not be generalizable and should be replicated to aid in interpretation. It is important to note, however, that the pilot may have captured a subset of families for whom the designed preventive intervention may be most effective. Participants in the study represent a sample of parents who are active in promoting academic success in their children, and the READI-SF was able to predict with a moderately high degree of accuracy which families attended the parenting group.

Secondly, some families completed two screening packets. With some parents repeating the screening, a small subset of the data is not independent. The study was designed to be implemented as part of a school program, thus the needs of the school system dictated how groups were provided as well as the necessity of not excluding families based on prior

ASSESSING PARENTAL READINESS

participation (or lack thereof) in the research project. The author attempted to control for the lack of independence in the data by utilizing first-case packets when necessary. However, the author also maximized the available sample size by retaining all available data where permissible in order to maintain power for statistical analyses.

Lastly, more research on the READI was published between the data collection and write-up for this study that might have informed use of the READI for the present study (Niec et al., 2015). Counter to the findings from Powe et al. (2011), Niec and colleagues found that the full version of the READI had adequate internal consistency. However, the latter study had several notable differences from the present study. First, the study did not explore measurement performance at the item level or indices of validity. Additionally, the samples in Niec et al. study and the present study were dissimilar, making interpretation of observed differences difficult. For example, the current sample consisted of predominately single, African American caregivers, whereas the sample in Niec et al. was married and predominately Caucasian. Findings from the two studies highlight the READI as a promising measure of parental readiness; however, further psychometric evaluation of the measure will be important for selecting the best form to implement. It is possible that the two versions of the READI may be differentially helpful for particular populations. For example, the Lie scale might be helpful for assessing readiness for court-mandated families or at pre-treatment, whereas the 15-item short-form might be most helpful for brief phone screenings or mid-treatment assessment.

The recent increase in publications related to parental readiness speaks to the interest level on the topic in the field. Research has made important strides in providing high-quality, effective interventions for families of young children with disruptive behavior problems. Now, it is imperative that we address factors and barriers that impact families' engagement in these

ASSESSING PARENTAL READINESS

interventions. Several promising measures of readiness to change parenting behaviors exist, including the READI, the PRFCS, and the PMI; however, they are all presently underdeveloped. Additionally, none of the parental readiness measures have been examined for use in preventive interventions outside of the present pilot study.

Future Directions

Parental readiness is an emerging topic that will have significant implications for intervention research moving forward. Similar to Wade and Andrade (2015) and Niec et al. (2015), future studies should examine multiple forms of parental readiness measures that may have been used in the literature. For example, additional research on the psychometric properties of the two forms of the READI (e.g., the full version tested in Niec et al. and the short form utilized in the present study) should be conducted. Further, the field will benefit from studies directly comparing the psychometric properties and clinical utility of the various parental readiness measures in order to understand their relative strengths and weaknesses and identify settings and populations with which the measures are most effective. As the literature on parental readiness and treatment engagement continues to grow, well-validated measures will be critical in quantifying this construct. Valid measures of parental readiness will aid researchers and clinicians in advancing intervention science, both in preventive and clinical intervention services.

Assessing parental readiness may also be helpful in maximizing limited community resources and designing preventive interventions that best meet families' needs. The pilot study presented in this manuscript should be replicated and extended. Future studies should include a wide range of schools and community settings, and provide parenting interventions across multiple time points. Validation of the READI-SF within a heterogenous community sample would aid in interpretation of findings related to child and family variables that may be

ASSESSING PARENTAL READINESS

associated with readiness to engage in services. Ultimately, research should aim to develop clinical cut-offs and community norms to aid in interpretation of parents' ratings.

As our understanding of readiness increases, a person-centered approach may be implemented to incorporate the complex, dynamic interplay of forces that impact parent readiness to engage in services and change parenting behaviors. For example, the use of person-centered analyses has been explored in forming parenting profiles to characterize parents on multiple dimensions, like readiness, self-efficacy, self-reported skills, and parental involvement (Andrade et al., 2015; Mendez, Carpenter, LaForett, & Cohen, 2009). Research in this domain may help to resolve some of the inconsistencies observed in findings related to readiness, engagement, and associated variables. Additionally, these groups could be helpfully applied to inform clinical service provision.

Lastly, researchers and clinicians would benefit from an investigation of variation in parental readiness to change parenting behaviors over time (Becker et al., 2014). As noted previously, readiness is a dynamic construct and may be influenced by many factors, including child, family, and intervention variables. Building on the Nock and Photos (2006) finding that parental readiness mediated attendance by predicting parent-reported barriers to treatment, the study of how readiness changes over time would inform conceptualization of this construct. Brief, validated measures of parental readiness could be used to obtain repeated assessment of readiness and assist in tailoring service delivery. Additionally, this line of examination could further elucidate the relationship between parental self-report characteristics, child disruptive behaviors, and parental readiness. Does parental readiness to change parenting behaviors decrease as children's behavior improves? If so, this would be consistent with previous findings supporting this relationship (Nock & Photos, 2006). If not, it might suggest that the observed

ASSESSING PARENTAL READINESS

relationship is related to parents' stage of readiness to change (e.g., parents who are ready to change are more likely to acknowledge the existence of child problems and inconsistencies in parenting). Overall, continued examination of parental readiness to change prior to intervention and over time could help clarify the impact of this construct on service engagement and utilization.

Summary

The present study provides initial evidence supporting the READI-SF as a valid measure of parental readiness to engage in services. While intervention research advances, drop-out continues to remain problematic for children and their families, especially in interventions that place higher levels of demand on parents, like parent training (Chacko et al., 2012; Chaffin et al., 2009; Miller & Prinz, 2003; Nock & Kazdin, 2005; Nock & Photos, 2006). Moving forward, it will be important to establish measures that can quantify parental readiness in order to inform treatment tailoring and improve limited resource utilization for both families and service providers. In line with this goal, establishing both clinical and community normative data to increase the interpretability of parents' readiness ratings will improve measurement utility. Measures of treatment readiness can also be used to tailor interventions, applying some strategies universally and some strategically (Becker et al., 2015; Chaffin et al., 2009; Lindsey et al., 2014).

Overall, a deeper understanding of parental readiness to engage in services, including the many multi-faceted factors that influence it, is important to continue advancing implementation science. As interventions move past the efficacy phase to dissemination and implementation, it

ASSESSING PARENTAL READINESS

will be important to complement this progress with a mechanism to support the practice.

Validated measures of parental readiness to engage in services can provide an important support to parent training interventions by helping assess factors important to treatment engagement and retention.

References

- Andrade, B. F., Browne, D. T., & Naber, A. R. (2015). Parenting skills and parent readiness for treatment are associated with child disruptive behavior and parent participation in treatment. *Behavior Therapy, 46*, 365-378. doi:10.1016/j.beth.2015.01.004
- Armbruster, P., & Kazdin, A. E. (1994). Attrition in child psychotherapy. In T. H. Ollendick & R. J. Prinz (Eds.), *Advances in Clinical Child Psychotherapy* (Vol. 16, pp. 81-108). New York, NY: Plenum Press.
- Becker, K. D., Kiser, L. J., Herr, S. R., Stapleton, L. M., Barksdale, C. L., & Buckingham, S. (2014). Changes in treatment engagement of youths and families with complex needs. *Children and Youth Services Review, 46*, 276-284. doi:10.1016/j.childyouth.2014.09.005
- Becker, K. D., Lee, B. R., Daleiden, E. L., Lindsey, M., Brandt, N. E., & Chorpita, B. F. (2015). The common elements of engagement in children's mental health services: Which elements for which outcomes? *Journal of Clinical Child and Adolescent Psychology, 44*(1), 30-43. doi:10.1080/15374416.2013.814543
- Bell, S. K., & Eyberg, S. M. (2002). Parent-Child Interaction Therapy: A dyadic intervention for the treatment of young children with conduct problems. In L. VandeCreek & T. L. Jackson (Eds.), *Innovations in Clinical Practice: A Source Book* (Vol. 20, pp. 57-74). Sarasota, FL: Professional Resource Press.
- Berkovits, M. D., O'Brien, K. A., Carter, C. G., & Eyberg, S. M. (2010). Early identification and intervention for behavior problems in primary care: A comparison of two abbreviated versions of Parent-Child Interaction Therapy. *Behavior Therapy, 41*, 375-387. doi:10.1016/j.beth.2009.11.002

ASSESSING PARENTAL READINESS

Biglan, A., Flay, B. R., Embry, D. D., & Sandler, I. N. (2012). The critical role of nurturing environments for promoting human well-being. *American Psychologist*, *67*(4), 257-271.

doi:10.1037/a0026796

Blanchard, K. A., Morgenstern, J., Morgan, T. J., Labouvie, E., & Bux, D. A. (2003).

Motivational subtypes and continuous measures of readiness for change: Concurrent and predictive validity. *Psychology of Addictive Behaviors*, *17*(1), 56-65. doi:10.1037/0893-

164x.17.1.56

Boggs, S. R., Eyberg, S. M., Edwards, D. L., Rayfield, A., Jacobs, J., Bagner, D., & Hood, K. K.

(2005). Outcomes of Parent-Child Interaction Therapy: A comparison of treatment completers and study dropouts one to three years later. *Child & Family Behavior*

Therapy, *26*(4), 1-22. doi:10.1300/J019v26n04_01

Boggs, S. R., Eyberg, S. M., & Reynolds, L. A. (1990). Concurrent validity of the Eyberg Child Behavior Inventory. *Journal of Clinical Child Psychology*, *19*(1), 75-78.

doi:10.1207/s15374424jccp1901_9

Brestan, E. V., & Eyberg, S. M. (1998). Effective psychosocial treatments of conduct-disordered children and adolescents: 29 years, 82 studies, and 5,272 kids. *Journal of Clinical Child*

Psychology, *27*(2), 180-189. doi:10.1207/s15374424jccp2702_5

Brestan, E. V., Ondersma, S. J., Simpson, S. M., & Gurwitch, R. H. (1999a). *Application of stage of change theory to parenting behavior: Validating the parent readiness to change scale.*

Paper presented at the Florida Conference on Child Health Psychology, Gainesville, FL.

Brestan, E. V., Ondersma, S. J., Simpson, S. M., & Gurwitch, R. H. (1999b). *Readiness,*

Efficacy, Attributions, Defensiveness, and Importance scale. Unpublished measure.

ASSESSING PARENTAL READINESS

- Brinkmeyer, M., & Eyberg, S. M. (2003). Parent-child interaction therapy for oppositional children. In A. E. Kazdin & J. R. Weisz (Eds.), *Evidence-Based Psychotherapies for Children and Adolescents* (pp. 204-233). New York, NY: Guilford.
- Brogan, M. M., Prochaska, J. O., & Prochaska, J. M. (1999). Predicting termination and continuation status in psychotherapy using the transtheoretical model. *Psychotherapy*, 36(2), 105-113. doi:10.1037/h0087773
- Brown, T. A. (2006). The common factor model and exploratory factor analysis. In D. A. Kenny (Ed.), *Confirmatory Factor Analysis for Applied Research* (pp. 12-39). New York, NY: The Guilford Press.
- Browne, M., & MacCallum, R. C. (2004). *Factor Analysis: Class Notes Fall, 2004*.
- Browne, M. W., Cudeck, R., Tateneni, K., & Mels, G. (2008). CEFA: Comprehensive Exploratory Factor Analysis. 3.04. Retrieved from <http://faculty.psy.ohio-state.edu/browne/>
- Carey, K. B., Purnine, D. M., Maisto, S. A., & Carey, M. P. (1999). Assessing readiness to change substance abuse: A critical review of instruments. *Clinical Psychology: Science and Practice*, 6(3), 245-266. doi:10.1093/clipsy.6.3.245
- Chacko, A., Wymbs, B. T., Chimiklis, A., Wymbs, F. A., & Pelham, W. E. (2012). Evaluating a comprehensive strategy to improve engagement to group-based behavioral parent training for high-risk families of children with ADHD. *Journal of Abnormal Child Psychology*, 40(8), 1351-1362. doi:10.1007/s10802-012-9666-z
- Chaffin, M., Valle, L. A., Funderburk, B., Gurwitch, R., Silovsky, J., Bard, D., . . . Kees, M. (2009). A motivational intervention can improve retention in PCIT for low-motivation

ASSESSING PARENTAL READINESS

child welfare clients. *Child Maltreatment*, 14(4), 356-368.

doi:10.1177/1077559509332263

Cicchetti, D. (1994). Guidelines, criteria, and rules of thumb for evaluating normed and standardized assessment instruments in psychology. *Psychological Assessment*, 6(4), 284-290. doi:10.1037/1040-3590.6.4.284

Clarke, G., Lynch, F., Spofford, M., DeBar, L. (2006). Trends influencing future delivery of mental health services in large healthcare systems. *Clinical Psychology: Science and Practice*, 13(3), 287-292. doi: 10.1111/j.1468-2850.2006.00040.x

Cook, D. A., & Beckman, T. J. (2006). Current concepts in validity and reliability for psychometric instruments: theory and application. *American Journal of Medicine*, 119(2), 166.e167-166.e116. doi:10.1016/j.amjmed.2005.10.036

Corden, J., & Somerton, J. (2004). The trans-theoretical model of change: A reliable blueprint for assessment in work with children and families? *British Journal of Social Work*, 34(7), 1025-1044. doi:10.1093/bjsw/bch127

de Haan, A. M., Boon, A. E., de Jong, J. T., Hoeve, M., & Vermeiren, R. R. (2013). A meta-analytic review on treatment dropout in child and adolescent outpatient mental health care. *Clinical Psychology Review*, 33(5), 698-711. doi:10.1016/j.cpr.2013.04.005

Derisley, J., & Reynolds, S. (2002). Evaluation of the Stages of Change Scales to measure client readiness for treatment in a mental health sample. *Behavioural and Cognitive Psychotherapy*, 30, 217-222. doi:10.1017/s1352465802002096

DiClemente, C. C., Schlundt, B. S., & Gemmell, L. (2004). Readiness and stages of change in addiction treatment. *The American Journal on Addictions*, 13, 103-119.
doi:10.1080/10550490490435777

ASSESSING PARENTAL READINESS

- Eyberg, S. M., Boggs, S. R., & Rodriguez, C. M. (1992). Relationships between maternal parenting stress and child disruptive behavior. *Child & Family Behavior Therapy, 14*(4), 1-9. doi: 10.1300/J019v14n04_01
- Eyberg, S. M., & Bussing, R. (2011). Parent–Child Interaction Therapy for preschool children with conduct problems. In R. C. Murrihy & A. D. Kidman (Eds.), *Clinical Handbook of Assessing and Treating Conduct Problems in Youth* (pp. 139-162). New York, NY: Springer Science+Business Media.
- Eyberg, S. M., & Funderburk, B. (2011). *Parent-Child Interaction Therapy Protocol: PCIT International*.
- Eyberg, S. M., Nelson, M. M., & Boggs, S. R. (2008). Evidence-based psychosocial treatments for children and adolescents with disruptive behavior. *Journal of Clinical Child and Adolescent Psychology, 37*(1), 215-237. doi:10.1080/15374410701820117
- Eyberg, S. M., & Pincus, D. (1999). *The Eyberg Child Behavior Inventory and Sutter-Eyberg Student Behavior Inventory - Revised: Professional manual*. Lutz, FL: Psychological Assessment Resources.
- Fabrigar, L. R., Wegener, D. T., MacCallum, R. C., & Strahan, E. J. (1999). Evaluating the use of exploratory factor analysis in psychological research. *Psychological Methods, 4*(3), 272-299. doi:10.1037/1082-989X.4.3.272
- Fernandez, M. A., & Eyberg, S. M. (2009). Predicting treatment and follow-up attrition in parent-child interaction therapy. *Journal of Abnormal Child Psychology, 37*(3), 431-441. doi:10.1007/s10802-008-9281-1

ASSESSING PARENTAL READINESS

- Flay, B. R., Biglan, A., Boruch, R. F., Castro, F. G., Gottfredson, D., Kellam, S., . . . Ji, P. (2005). Standards of evidence: Criteria for efficacy, effectiveness and dissemination. *Prevention Science, 6*(3), 151-175. doi:10.1007/s11121-005-5553-y
- Floyd, F. J., & Widaman, K. F. (1995). Factor analysis in the development and refinement of assessment instruments. *Psychological Assessment, 7*(3), 286-299. doi:10.1037/1040-3590.7.3.286
- Fok, C. C., & Henry, D. (2015). Increasing the sensitivity of measures to change. *Prevention Science, 16*(7), 978-986. doi:10.1007/s11121-015-0545-z
- Funderburk, B. W., Eyberg, S. M., Rich, B. A., & Behar, L. (2003). Further psychometric evaluation of the Eyberg and Behar rating scales for parents and teachers of preschoolers. *Early Education & Development, 14*(1), 67-82. doi:10.1207/s15566935eed1401_5
- Gardner, F., & Shaw, D. S. (2008). Behavioral problems of infancy and preschool children (0-5). In M. Rutter, D. Bishop, D. Pine, S. Scott, J. Stevenson, E. Taylor, & A. Thapar (Eds.), *Rutter's Child and Adolescent Psychiatry* (5th ed., pp. 882-893). New York, NY: Blackwell Publishing.
- Garvey, C., Julion, W., Fogg, L., Kratovil, A., & Gross, D. (2006). Measuring participation in a prevention trial with parents of young children. *Research in Nursing and Health, 29*(3), 212-222. doi:10.1002/nur.20127
- Girvin, H. (2004). Beyond 'stages of change:' Using readiness for change and caregiver-reported problems to identify meaningful subgroups in a child welfare sample. *Children and Youth Services Review, 26*(10), 897-917. doi:10.1016/j.childyouth.2004.04.001

ASSESSING PARENTAL READINESS

- Gopalan, G., Goldstein, L., Klingenstein, K., Sicher, C., Blake, C., & McKay, M. M. (2010). Engaging families in child mental health treatment: Updates and special considerations. *Journal of the Canadian Academy of Child and Adolescent Psychiatry, 19*(3), 182-196.
- Gottfredson, D. C., Cook, T. D., Gardner, F. E., Gorman-Smith, D., Howe, G. W., Sandler, I. N., & Zafft, K. M. (2015). Standards of evidence for efficacy, effectiveness, and scale-up research in prevention science: Next generation. *Prevention Science, 16*(7), 893-926. doi:10.1007/s11121-015-0555-x
- Greenberg, M. T., Domitrovich, C., & Bumbarger, B. (2001). The prevention of mental disorders in school-aged children: Current state of the field. *Prevention and Treatment, 4*, 1-62. doi:10.1037/1522-3736.4.1.41a
- Howell, D. C. (2010). Multiple regression. In: *Statistical Methods for Psychology* (7th ed., pp. 515-577). Belmont, CA: Cengage Wentworth.
- Ingoldsby, E. M. (2010). Review of interventions to improve family engagement and retention in parent and child mental health programs. *Journal of Child and Family Studies, 19*(5), 629-645. doi:10.1007/s10826-009-9350-2
- Kaiser, H. F. (1960). The application of electronic computers to factor analysis. *Educational and Psychological Measurement, 20*, 141-151. doi: 10.1177/001316446002000116
- Kazdin, A. E., Holland, L., Crowley, M., & Breton, S. (1997). Barriers to Treatment Participation Scale: Evaluation and validation in the context of child outpatient treatment. *Journal of Child Psychology and Psychiatry, 38*(8), 1051-1062. doi:10.1111/j.1469-7610.1997.tb01621.x

ASSESSING PARENTAL READINESS

- Kazdin, A. E., & Wassell, G. (2000). Predictors of barriers to treatment and therapeutic change in outpatient therapy for antisocial children and their families. *Mental Health Services Research, 2*(1), 27-40.
- King, G., Currie, M., & Petersen, P. (2014). Child and parent engagement in the mental health intervention process: A motivational framework. *Child and Adolescent Mental Health, 19*(1), 2-8. doi:10.1111/camh.12015
- Kline, P. (1994). *An Easy Guide to Factor Analysis*. New York, NY: Routledge.
- Lindsey, M. A., Brandt, N. E., Becker, K. D., Lee, B. R., Barth, R. P., Daleiden, E. L., & Chorpita, B. F. (2014). Identifying the common elements of treatment engagement interventions in children's mental health services. *Clinical Child and Family Psychology Review, 17*, 283-298.
- Littell, J. H., & Girvin, H. (2002). Stages of change: A critique. *Behavior Modification, 26*(2), 223-273. doi:10.1177/0145445502026002006
- Littell, J. H., & Girvin, H. (2005). Caregivers' readiness for change: Predictive validity in a child welfare sample. *Child Abuse and Neglect, 29*(1), 59-80.
doi:10.1016/j.chiabu.2004.08.004
- MacCallum, R. C., Widaman, K. F., Zhang, S., & Hong, S. (1999). Sample size in factor analysis. *Psychological Methods, 4*(1), 84-99. doi:10.1037/1082-989X.4.1.84
- Mah, J. W., & Johnston, C. (2008). Parental social cognitions: Considerations in the acceptability of and engagement in behavioral parent training. *Clinical Child and Family Psychology Review, 11*(4), 218-236. doi:10.1007/s10567-008-0038-8

ASSESSING PARENTAL READINESS

- McConaughy, E. A., Prochaska, J. M., & Velicer, W. F. (1983). Stages of change in psychotherapy: Measurement and sample profiles. *Psychotherapy: Theory, Research, and Practice, 30*(3), 368-375. doi:10.1037/h0090198
- McKay, M. M., & Bannon, W. M., Jr. (2004). Engaging families in child mental health services. *Child and Adolescent Psychiatry Clinics of North America, 13*(4), 905-921. doi:10.1016/j.chc.2004.04.001
- Mendez, J. L., Carpenter, J. L., LaForett, D. R., & Cohen, J. S. (2009). Parental engagement and barriers to participation in a community-based preventive intervention. *American Journal of Community Psychology, 44*(1-2), 1-14. doi:10.1007/s10464-009-9252-x
- Miller, G. E., & Prinz, R. J. (2003). Engagement of families in treatment for childhood conduct problems. *Behavior Therapy, 34*, 517-534. doi:10.1016/S0005-7894(03)80033-3
- Miller, W. R., & Rollnick, S. (2012). *Motivational interviewing: Helping people change*. New York, NY: Guilford Press.
- Miller, W. R., & Tonigan, J. S. (1996). Assessing drinkers' motivation for change: The Stages of Change Readiness and Treatment Eagerness Scale (SOCRATES). *Psychology of Addictive Behaviors, 10*(2), 81-89. doi:10.1037/0893-164X.10.2.81
- Morrison, T. (2010). Assessing parental motivation for change. In J. Horwath (Ed.), *The Child's World: The Comprehensive Guide to Assessing Children in Need* (2 ed., pp. 305-325). Philadelphia, PA: Jessica Kingsley Publishers.
- Mullins, S. M., Suarez, M., Ondersma, S. J., & Page, M. C. (2004). The impact of motivational interviewing on substance abuse treatment retention: A randomized control trial of women involved with child welfare. *Journal of Substance Abuse Treatment, 27*, 51-58. doi:10.1016/j.jsat.2004.03.010

ASSESSING PARENTAL READINESS

Napper, L. E., Wood, M. M., Jaffe, A., Fisher, D. G., Reynolds, G. L., & Klahn, J. A. (2008).

Convergent and discriminant validity of three measures of stage of change. *Psychology of Addictive Behaviors*, 22(3), 362-371. doi:10.1037/0893-164X.22.3.362

Niec, L. N., Barnett, M. L., Gering, C. L., Triemstra, K., & Solomon, D. T. (2015). Differences in mothers' and fathers' readiness for change in parent training. *Child & Family Behavior Therapy*, 37(3), 224-235. doi:10.1080/07317107.2015.1071980

Nix, R. L., Bierman, K. L., & McMahon, R. J. (2009). How attendance and quality of participation affect treatment response to parent management training. *Journal of Consulting and Clinical Psychology*, 77(3), 429-438. doi:10.1037/a0015028

Nock, M. K., & Ferriter, C. (2005). Parent management of attendance and adherence in child and adolescent therapy: A conceptual and empirical review. *Clinical Child and Family Psychology Review*, 8(2), 149-166. doi:10.1007/s10567-005-4753-0

Nock, M. K., & Kazdin, A. E. (2005). Randomized controlled trial of a brief intervention for increasing participation in parent management training. *Journal of Consulting and Clinical Psychology*, 73(5), 872-879. doi:10.1037/0022-006X.73.5.872

Nock, M. K., & Photos, V. (2006). Parent motivation to participate in treatment: Assessment and prediction of subsequent participation. *Journal of Child and Family Studies*, 15(3), 333-346. doi:10.1007/s10826-006-9022-4

O'Connell, M. E., Boat, T., & Warner, K. E. (Eds.). (2009). *Preventing Mental, Emotional, and Behavioral Disorders Among Young People: Progress and Possibilities*. Washington, DC: National Academies Press.

ASSESSING PARENTAL READINESS

- Park, H. S., Dailey, R., & Lemus, D. (2002). The use of exploratory factor analysis and principal components analysis in communication research. *Human Communication Research*, 28(4), 562-577. doi:10.1111/j.1468-2958.2002.tb00824.x
- Powe, C., Barber, A., Travis, J., Smeraglia, K., Tips, C., Collier, A., . . . Brestan-Knight, E. (2011, November). *READI to change: Assessing caregiver's motivation to change their parenting*. Poster presented at the Caribbean Regional Conference of Psychology, Nassau, Bahamas.
- Prinz, R. J., & Miller, G. E. (1994). Family-based treatment for childhood antisocial behavior: Experimental influences on dropout and engagement. *Journal of Consulting and Clinical Psychology*, 62(3), 645-650. doi:10.1037/0022-006X.62.3.645
- Prochaska, J. M., & DiClemente, C. C. (1982). Transtheoretical therapy: Toward a more integrative model of change. *Psychotherapy: Theory, Research, and Practice*, 19(3), 276-288. doi:10.1037/h0088437
- Prochaska, J. M., & DiClemente, C. C. (1983). Stages and processes of self-change of smoking: Toward an integrative model of change. *Journal of Consulting and Clinical Psychology*, 51(3), 390-395. doi:10.1037/0022-006X.51.3.390
- Prochaska, J. O., Redding, C. A., & Evers, K. E. (2008). The transtheoretical model and stages of change. In K. Glanz, B. K. Rimer, & K. Viswanath (Eds.), *Health Behavior and Health Education: Theory, Research, and Practice* (4 ed.). San Francisco, CA: Jossey-Bass, A Wiley Imprint.
- Proctor, K. B., Brestan-Knight, E., Bailey, J., & Zlomke, K. (2015, November). *Validation of the READI-SF: Comparison of scores between a community and clinical sample*. Poster

ASSESSING PARENTAL READINESS

presented at the annual convention of the Association for Behavioral and Cognitive Therapies, Chicago, IL.

- Proctor, K. B., & Brestan-Knight, E. (2016). Evaluating the use of assessment paradigms for preventive interventions: A review of the Triple P - Positive Parenting Program. *Children and Youth Services Review, 62*, 72-82. doi:10.1016/j.chidyouth.2016.01.018
- Rapp-Paglicci, L., & Savon, A. (2009). How can treatment motivation enhance youth prevention programs? *Best Practices in Mental Health: An International Journal, 5*(1), 44-51.
- Rich, B. A., & Eyberg, S. M. (2001). Accuracy of assessment: The discriminative and predictive power of the Eyberg Child Behavior Inventory. *Ambulatory Child Health, 7*, 249-257. doi:10.1046/j.1467-0658.2001.00141.x
- Sandler, I. N., Schoenfelder, E. N., Wolchik, S. A., & MacKinnon, D. P. (2011). Long-term impact of prevention programs to promote effective parenting: Lasting effects but uncertain processes. *Annual Review of Psychology, 62*, 299-329. doi:10.1146/annurev.psych.121208.131619
- Shaw, D. S. (2013). Future directions for research on the development and prevention of early conduct problems. *Journal of Clinical Child and Adolescent Psychology, 42*(3), 418-428. doi:10.1080/15374416.2013.777918
- Shaw, D. S., Dishion, T. J., Supplee, L., Gardner, F., & Arnds, K. (2006). Randomized trial of a family-centered approach to the prevention of early conduct problems: 2-year effects of the family check-up in early childhood. *Journal of Consulting and Clinical Psychology, 74*(1), 1-9. doi:10.1037/0022-006X.74.1.1

ASSESSING PARENTAL READINESS

- Spoth, R., & Redmond, C. (1995). Parent motivation to enroll in parenting skills programs: A model of family context and health belief predictors. *Journal of Family Psychology, 9*(3), 294-310. doi:10.1037/0893-3200.9.3.294
- Spoth, R. L., Redmond, C., Kahn, J. H., & Shin, C. (1997). A prospective validation study of inclination, belief, and context predictors of family-focused prevention involvement. *Family Process, 36*, 403-429. doi:10.1111/j.1545-5300.1997.00403.x
- Stark, L. J., Spear, S., Boles, R., Kuhl, E., Ratcliff, M., Scharf, C., . . . Rausch, J. (2011). A pilot randomized controlled trial of a clinic and home-based behavioral intervention to decrease obesity in preschoolers. *Obesity, 19*(1), 134-141. doi:10.1038/oby.2010.87
- Staudt, M. (2007). Treatment engagement with caregivers of at-risk children: Gaps in research and conceptualization. *Journal of Child and Family Studies, 16*(2), 183-196. doi:10.1007/s10826-006-9077-2
- Steiner, H., & Remsing, L. (2007). Practice parameter for the assessment and treatment of children and adolescents with oppositional defiant disorder. *Journal of the American Academy of Child & Adolescent Psychiatry, 46*(1), 126-141. doi:10.1097/01.chi.0000246060.62706.af
- Treysman, A. B. (2013). *Low-income parents' motivations and barriers to attendance in preventive parent training* (Unpublished doctoral dissertation). Rush University, Chicago.
- Wade, M., & Andrade, B. F. (2015). Validation of a measure of parental readiness for treatment in a clinical sample of children with disruptive behavior. *Journal of Psychopathology and Behavioral Assessment, 37*(2), 184-195. doi:10.1007/s10862-014-9458-6

ASSESSING PARENTAL READINESS

Wakschlag, L. S., Briggs-Gowan, M. J., Carter, A. S., Hill, C., Danis, B., Keenan, K., . . .

Leventhal, B. L. (2007). A developmental framework for distinguishing disruptive behavior from normative misbehavior in preschool children. *Journal of Child Psychology and Psychiatry*, 48(10), 976-987. doi:10.1111/j.1469-7610.2007.01786.x

Wandersman, A., & Florin, P. (2003). Community interventions and effective prevention.

American Psychologist, 58(6-7), 441-448. doi:10.1037/0003-066x.58.6-7.441

Webster-Stratton, C., & Reid, M. J. (2006). Treatment and prevention of conduct problems:

Parent training interventions for young children (2-7 years old). In K. McCartney & D. Phillips (Eds.), *Blackwell Handbook of Early Childhood Development* (pp. 616-641). Malden, MA: Oxford: Blackwell Publishing.

Weis, R., Lovejoy, M. C., & Lundahl, B. W. (2005). Factor structure and discriminative validity

of the Eyberg Child Behavior Inventory with young children. *Journal of Psychopathology and Behavioral Assessment*, 27(4), 269-278. doi:10.1007/s10862-005-2407-7

Wierzbicki, M., & Pekarik, G. (1993). A meta-analysis of psychotherapy dropout. *Professional*

Psychology: Research and Practice, 24(2), 190-195. doi:10.1037/0735-7028.24.2.190

Williams, B., Brown, T., & Onsmann, A. (2012). Exploratory factor analysis: A five-step guide

for novices. *Australasian Journal of Paramedicine*, 8(3), 1-13.

Yoshikawa, H., Aber, J. L., & Beardslee, W. R. (2012). The effects of poverty on the mental,

emotional, and behavioral health of children and youth: implications for prevention.

American Psychologist, 67(4), 272-284. doi:10.1037/a0028015

ASSESSING PARENTAL READINESS

Appendix A

Parent Motivation Inventory

Parent name: _____
Case number: _____

Date: _____
Therapist: _____

All parents who come to the clinic for treatment with their children are different. How much do you agree with each of the following statements related to your participation in your child's treatment? Your responses will not affect the treatment you receive in any way. Thank you.

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

ASSESSING PARENTAL READINESS

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

ASSESSING PARENTAL READINESS

Appendix B

Readiness, Efficacy, Attributions, Defensiveness, & Importance Scale – Short Form (READI-SF)

For each question, please circle the number that best describes your parenting views.

Questions					
	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
1. I'm ready to start working on my parenting	1	2	3	4	5
2. Bad things could happen if my child's behavior doesn't get better	1	2	3	4	5
3. I'm ready to change my parenting	1	2	3	4	5
4. It's worth it to spend money to help my child with his/her behavior	1	2	3	4	5
5. It is very important that my child's behavior problems are fixed	1	2	3	4	5
6. I need to learn to be more consistent	1	2	3	4	5
7. I'm eager to learn any skills the therapist can teach me	1	2	3	4	5
8. I want to change the way I discipline my child	1	2	3	4	5
9. It's time to change the way my child and I get along	1	2	3	4	5
10. If things don't change, my child's future could be hurt	1	2	3	4	5
11. I will work on my child's behavior problems later	1	2	3	4	5
12. Things with my child's behavior have to change very soon	1	2	3	4	5
13. It's very important that my child and/or I get help	1	2	3	4	5
14. I am willing to do whatever it takes to be sure that we get help	1	2	3	4	5
15. I have problems that are more important than my child's behavior right now	1	2	3	4	5
16. It might be hard, but I'm ready to parent differently	1	2	3	4	5
17. I'd like to learn what will work to change my child's behavior	1	2	3	4	5

ASSESSING PARENTAL READINESS

The READI-SF Scale Scoring

Readiness Scale (High Score = Readiness for treatment)

1, 3, 6, 7, 8, 9, 16, 17

Importance Scale (High Score = Belief in the importance of treatment)

2, 4, 5, 10, 11*, 12, 13, 14, 15*

*Item must be reverse scored

ASSESSING PARENTAL READINESS

Appendix C

Demographics Form

ABOUT YOUR CHILD	
Child Name:	Child Teacher:
Date of Birth: ____/____/____	Child's Gender <input type="checkbox"/> Male <input type="checkbox"/> Female
Child's Ethnicity (Check all that apply) <input type="checkbox"/> Hispanic <input type="checkbox"/> Asian <input type="checkbox"/> Black/African American <input type="checkbox"/> White <input type="checkbox"/> Other (Specify)	
ABOUT YOURSELF	
Did you complete a research packet from Auburn University last year (Spring 2015)? : <input type="checkbox"/> Yes <input type="checkbox"/> No	
Family Member Completing Form: <input type="checkbox"/> Mother <input type="checkbox"/> Father <input type="checkbox"/> Grandmother <input type="checkbox"/> Grandfather <input type="checkbox"/> Other (please describe)	
Parent Name:	
Phone Number:	
Parent Age: _____	
Caregiver Ethnicity (Check all that apply): <input type="checkbox"/> Hispanic <input type="checkbox"/> Asian <input type="checkbox"/> Black/African American <input type="checkbox"/> White <input type="checkbox"/> Other	
Highest Education: <input type="checkbox"/> Less than high school <input type="checkbox"/> Graduated high school/GED <input type="checkbox"/> Some college/vocational school <input type="checkbox"/> Graduated college/vocational school <input type="checkbox"/> Some graduate school <input type="checkbox"/> Completed graduate school	
YOUR RELATIONSHIP STATUS: (Please check one)	
<input type="checkbox"/> Single <input type="checkbox"/> Married/Partnered <input type="checkbox"/> Separated/Divorced <input type="checkbox"/> Other (describe)	
WHAT IS YOUR FAMILY'S CURRENT HOUSEHOLD YEARLY INCOME? (Please check one)	
<input type="checkbox"/> Less than \$4,999 <input type="checkbox"/> \$5,000-\$9,999 <input type="checkbox"/> \$10,000 – \$14,999 <input type="checkbox"/> \$15,000 – \$19,999 <input type="checkbox"/> <input type="checkbox"/> \$20,000 – \$24,999 <input type="checkbox"/> \$25,000 – \$29,999 <input type="checkbox"/> \$30,000 – \$34,999 <input type="checkbox"/> \$35, 000 – \$39,999 <input type="checkbox"/> <input type="checkbox"/> \$40,000-\$44,999 <input type="checkbox"/> \$45,000 or more	
IS YOUR FAMILY CURRENTLY EXPERIENCING ANY FINANCIAL DIFFICULTIES? (Please check one)	
<input type="checkbox"/> No <input type="checkbox"/> Some financial problem <input type="checkbox"/> Many financial problems <input type="checkbox"/> It is hard to meet our basic needs	
IN WHAT AREAS ARE YOU CURRENTLY EXPERIENCING FIANCIAL DIFFICULTIES (Please check all that apply)	
<input type="checkbox"/> None <input type="checkbox"/> Phone/Utility bills <input type="checkbox"/> Rent/Mortgage <input type="checkbox"/> Buying food <input type="checkbox"/> Vehicle-related <input type="checkbox"/> Medical	
WHO LIVES IN THE HOME WITH THE CHILD?	
Number of Adults (18 years and older): _____ Number of Children (Under 18 years): _____	
DO YOU CONSIDER YOUR CHILD TO HAVE ANY OF THE FOLLOWING DIFFICULTIES?	
<input type="checkbox"/> Behavior problems <input type="checkbox"/> Mental health problems <input type="checkbox"/> Learning problems <input type="checkbox"/> Health problems	

ASSESSING PARENTAL READINESS

Table 1

Demographics - Age

	<u>Number</u>	<u>Mean</u>	<u>Std. Deviation</u>	<u>Minimum</u>	<u>Maximum</u>
Parent Age	96	29.58	5.741	18	45
Child Age	125	3.98	0.947	3	7

ASSESSING PARENTAL READINESS

Table 2

Demographics

<u>Characteristic</u>	<u>Percent</u>
Child Ethnicity	
Black/African American	93.8
White/Caucasian	0.9
Other	0.9
Missing	4.4
Child Gender	
Male	49.6
Female	48.7
Missing	1.8
Parent Ethnicity	
Black/African American	92.2
White/Caucasian	1.0
Other	1.9
Missing	3.9
Parent Education	
Less than high school	2.9
Graduated high school/GED	32.0
Some college/Vocational school	35.0
Graduated college/Vocational school	21.4
Some graduate school	1.9
Completed graduate school	4.9
Missing	1.9
Parent Relationship Status	
Single	66.0
Married/Partnered	23.3
Separated/Divorced	7.8
Other	1.0
Missing	1.9
Annual Income	
Less than \$4,999	26.2
\$5,000 - \$9,999	7.8
\$10,000 - \$14,999	3.9
\$15,000 - \$19,999	5.8
\$20,000 - \$24,999	3.9
\$25,000 - \$29,999	8.7
\$30,000 - \$34,999	9.7
\$35,000 - \$39,999	2.9
\$40,000 - \$44,999	3.9
\$45,000 or more	19.4
Missing	7.8

ASSESSING PARENTAL READINESS

Financial Difficulty		
	None	35.9
	Some financial problems	40.8
	Many financial problems	10.7
	Difficulty meeting basic needs	10.7
	Missing	1.9

ASSESSING PARENTAL READINESS

Table 3

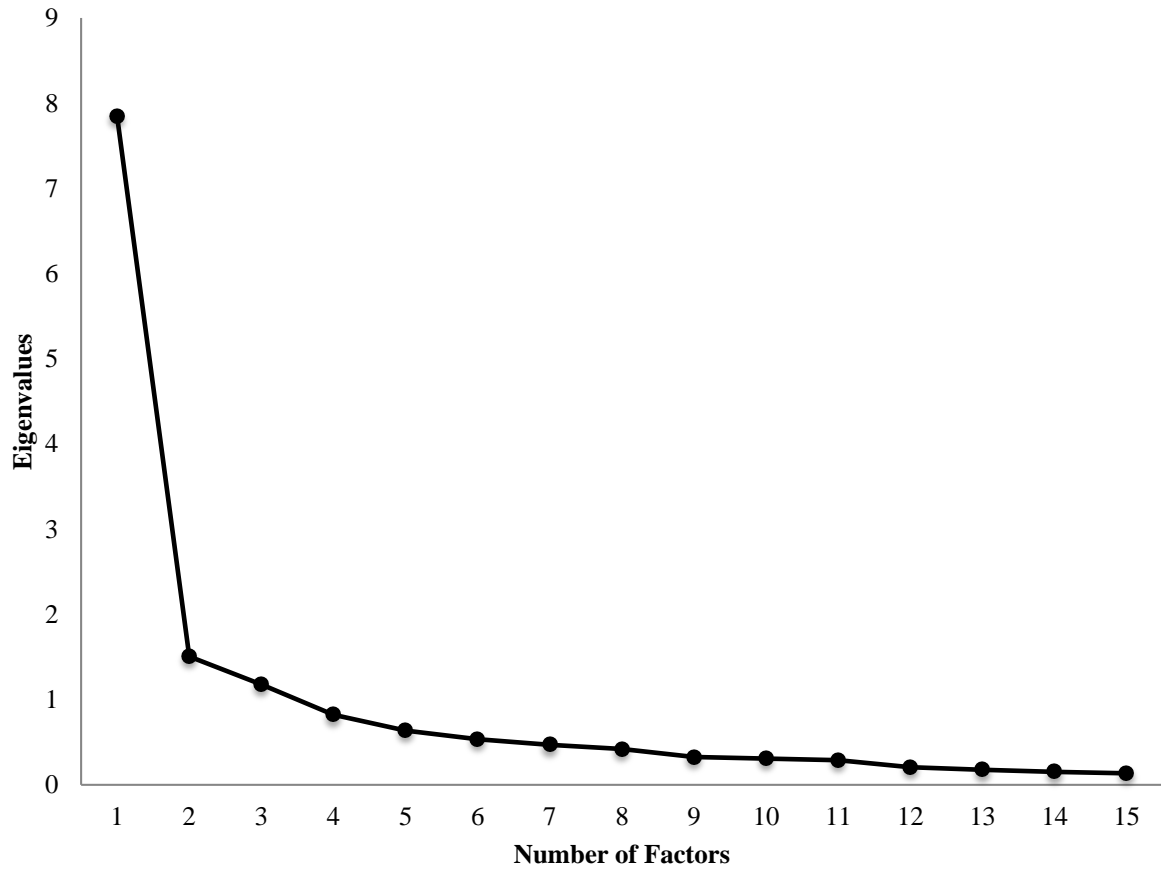
Exploratory Factor Analysis Results Using Maximum Likelihood Estimation

<u>Model</u>	<u>\hat{F}</u>	<u>X^2</u>	<u>df</u>	<u>Number of Parameters</u>	<u>Exceedance prob of close fit</u>	<u>Exceedance prob of perfect fit</u>	<u>RMSEA</u>	<u>90% CI</u>	<u>TLm</u>
2	2.058	261.412	76	44	0.000	0.000	0.139	(.120; .157)	0.802
3	1.181	149.990	63	57	0.000	0.000	0.104	(.083; .126)	0.888
4	0.793	100.743	51	69	0.010	0.000	0.088	(.062; .113)	0.921
5	0.443	56.246	40	80	0.355	0.046	0.057	(.008; .089)	0.967
6	0.280	35.490	30	90	0.633	0.225	0.038	(.000; .080)	0.985

ASSESSING PARENTAL READINESS

Figure 1

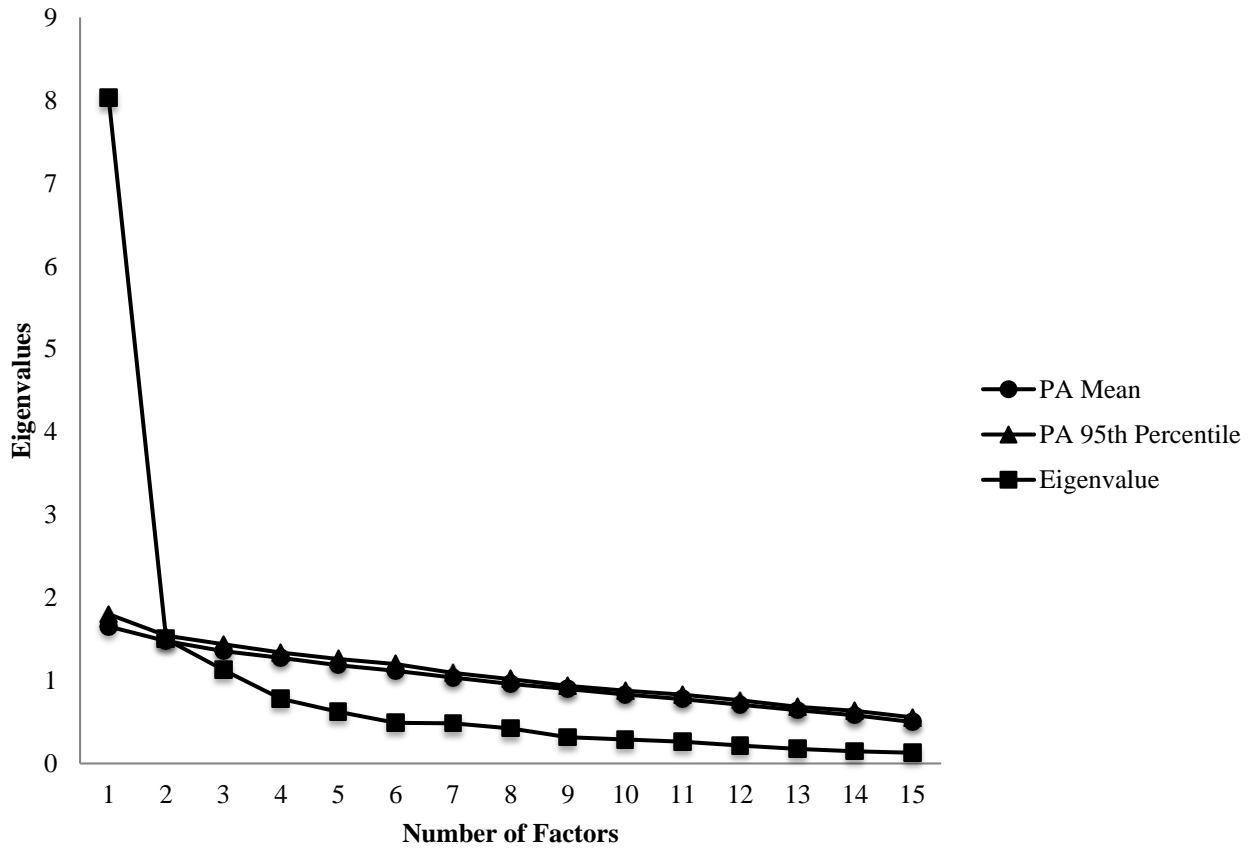
Scree Plot for READI-SF EFA



ASSESSING PARENTAL READINESS

Figure 2

Parallel Analysis for READI-SF EFA



ASSESSING PARENTAL READINESS

Table 4

Eigenvalues from the unreduced sample correlation matrix

<u>Factor</u>	<u>Eigenvalue</u>
1	7.842
2	1.506
3	1.177
4	0.822
5	0.636
6	0.535
7	0.470
8	0.420
9	0.326
10	0.307
11	0.288
12	0.207
13	0.177
14	0.152
15	0.134

ASSESSING PARENTAL READINESS

Table 5

Exploratory Factor Analysis Results for the Four-Factor Model of the READI-SF Using Maximum Likelihood Estimation (n = 128)

<u>Item</u>	Factor Loadings			
	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>
I'm ready to start working on my parenting	0.578	0.060	0.051	0.261
I'm ready to change my parenting	0.788	0.109	0.138	0.007
I need to learn to be more consistent	0.377	0.152	0.030	0.166
I want to change the way I discipline my child	0.480	0.252	0.048	0.177
It might be hard, but I'm ready to parent differently	0.760	0.075	0.102	0.083
It's very important that my child and/or I get help	-0.120	1.071	0.012	-0.039
I am willing to do whatever it takes to be sure that we get help	0.111	0.634	0.028	0.108
Bad things could happen if my child's behavior doesn't get better	-0.001	0.000	0.732	0.089
It is very important that my child's behavior problems are fixed	-0.248	0.033	0.461	0.718
It's time to change the way my child and I get along	0.312	0.186	0.500	-0.086
If things don't change, my child's future could be hurt	0.143	0.312	0.628	-0.059
Things with my child's behavior have to change very soon	0.085	0.194	0.648	0.088
It's worth it to spend money to help my child with his/her behavior	0.113	0.039	-0.051	0.616
I'm eager to learn any skills the therapist can teach me	0.295	0.180	-0.126	0.657
I'd like to learn what will work to change my child's behavior	0.090	0.199	0.298	0.402

ASSESSING PARENTAL READINESS

Table 6

Exploratory Factor Analysis Results for the Three-Factor Model of the READI-SF Using Maximum Likelihood Estimation (n = 128)

<u>Item</u>	<u>Factor Loadings</u>		
	<u>Importance</u>	<u>Treatment Readiness</u>	<u>Readiness for Change</u>
Bad things could happen if my child's behavior doesn't get better	0.694	0.163	-0.110
It's time to change the way my child and I get along	0.600	-0.035	0.316
If things don't change, my child's future could be hurt	0.815	-0.001	0.179
Things with my child's behavior have to change very soon	0.725	0.168	0.064
It's very important that my child and/or I get help	0.540	0.095	0.306
It's worth it to spend money to help my child with his/her behavior	-0.124	0.663	0.123
It is very important that my child's behavior problems are fixed	0.377	0.803	-0.315
I'm eager to learn any skills the therapist can teach me	-0.100	0.683	0.376
I'd like to learn what will work to change my child's behavior	0.340	0.477	0.117
I'm ready to start working on my parenting	0.027	0.293	0.585
I'm ready to change my parenting	0.161	0.049	0.796
I need to learn to be more consistent	0.072	0.197	0.432
I want to change the way I discipline my child	0.158	0.205	0.575
I am willing to do whatever it takes to be sure that we get help	0.351	0.176	0.358
It might be hard, but I'm ready to parent differently	0.108	0.113	0.767

ASSESSING PARENTAL READINESS

Table 7

Correlation Matrix for the READI-SF (n = 128)

	Item 1	Item 2	Item 3	Item 4	Item 5	Item 6	Item 7	Item 8	Item 9	Item 10	Item 11	Item 12	Item 13	Item 14	Item 15
Item 1	1.000														
Item 2	0.354	1.000													
Item 3	0.719	0.375	1.000												
Item 4	0.375	0.256	0.352	1.000											
Item 5	0.381	0.565	0.312	0.486	1.000										
Item 6	0.542	0.249	0.530	0.219	0.331	1.000									
Item 7	0.660	0.274	0.591	0.597	0.575	0.476	1.000								
Item 8	0.550	0.269	0.657	0.338	0.384	0.517	0.645	1.000							
Item 9	0.417	0.481	0.570	0.244	0.416	0.437	0.363	0.528	1.000						
Item 10	0.464	0.670	0.539	0.240	0.520	0.376	0.437	0.544	0.679	1.000					
Item 12	0.405	0.591	0.507	0.294	0.614	0.272	0.410	0.471	0.595	0.747	1.000				
Item 13	0.454	0.432	0.550	0.300	0.445	0.405	0.500	0.566	0.568	0.695	0.618	1.000			
Item 14	0.442	0.357	0.561	0.324	0.420	0.313	0.530	0.480	0.484	0.552	0.513	0.738	1.000		
Item 16	0.634	0.296	0.811	0.453	0.304	0.446	0.598	0.683	0.524	0.511	0.520	0.513	0.570	1.000	
Item 17	0.457	0.436	0.488	0.473	0.637	0.295	0.555	0.484	0.490	0.546	0.614	0.556	0.547	0.565	1.000

ASSESSING PARENTAL READINESS

Table 8

Unique Variances and Communalities of the Three-Factor Model

<u>Item Number</u>	<u>Unique Variance</u>	<u>Communality</u>
Item 1	.394	.606
Item 2	.454	.546
Item 3	.194	.806
Item 4	.541	.459
Item 5	.166	.834
Item 6	.654	.346
Item 7	.239	.761
Item 8	.394	.606
Item 9	.420	.580
Item 10	.191	.809
Item 12	.285	.715
Item 13	.404	.596
Item 14	.506	.494
Item 16	.232	.768
Item 17	.415	.585

ASSESSING PARENTAL READINESS

Table 9

Correlations Among Scales in the Three-Factor Model

	<u>Importance</u>	<u>Contemplation</u>	<u>Readiness</u>
Importance	1.00		
Contemplation	0.452	1.00	
Readiness	0.392	0.458	1.00

ASSESSING PARENTAL READINESS

Table 10

Exploratory Factor Analysis Results for the first-only and all available READI-SF Using Maximum Likelihood Estimation

<u>n</u>	<u>Model</u>	<u>\hat{F}</u>	<u>X^2</u>	<u>df</u>	<u>Number of Parameters</u>	<u>Exceedance prob of close fit</u>	<u>Exceedance prob of perfect fit</u>	<u>RMSEA (90% CI)</u>	<u>Fit - RMSEA</u>	<u>TLm</u>
103	3-Factor	1.381	140.810	63	57	0.000	0.000	.110 (.086; .134)	Unacceptable to Mediocre	.871
128	3-Factor	1.181	149.990	63	57	0.000	0.000	0.104 (.083; .126)	Mediocre	0.888

ASSESSING PARENTAL READINESS

Table 11

Factor Loadings from First-Only and All Available Forms

	<u>Factor 1</u>	<u>Factor 2</u>	<u>Factor 3</u>
First-Only			
Item 2	-.088	.723	.098
Item 9	.350	.536	-.061
Item 10	.186	.784	.022
Item 12	.037	.717	.166
Item 13	.306	.518	.111
Item 4	.049	-.123	.722
Item 5	-.262	.385	.730
Item 7	.387	-.083	.687
Item 17	.148	.327	.439
Item 1	.660	-.007	.296
Item 3	.808	.170	.023
Item 6	.457	.074	.151
Item 8	.598	.129	.223
Item 14	.362	.336	.187
Item 16	.743	.100	.112
All Available			
Item 2	0.694	0.163	-0.110
Item 9	0.600	-0.035	0.316
Item 10	0.815	-0.001	0.179
Item 12	0.725	0.168	0.064
Item 13	0.540	0.095	0.306
Item 4	-0.124	0.663	0.123
Item 5	0.377	0.803	-0.315
Item 7	-0.100	0.683	0.376
Item 17	0.340	0.477	0.117
Item 1	0.027	0.293	0.585
Item 3	0.161	0.049	0.796
Item 6	0.072	0.197	0.432
Item 8	0.158	0.205	0.575
Item 14	0.351	0.176	0.358
Item 16	0.108	0.113	0.767

ASSESSING PARENTAL READINESS

Table 12

Logistic Regressions Predicting Parents' Attendance at Group

	<u>B (SE)</u>	<u>Lower</u>	<u>Odds Ratio</u>	<u>Upper</u>	<u>Sig.</u>	<u>R²</u> <u>(Cox & Snell)</u>	<u>R²</u> <u>(Nagelkerke)</u>
Total Scores							
Constant	-5.12 (1.30)						
READI-SF	1.05 (0.37)	1.39	2.86	5.87	.004**	.10	.18
Importance Scores							
Constant	-2.99 (.74)						
Importance	0.493 (.26)	0.99	1.64	2.72	.057	.04	.06
Treatment Readiness Scores							
Constant	-4.74 (1.48)						
Treatment Readiness	0.79 (.37)	1.08	2.21	4.52	.030*	.06	.11
Readiness for Change Scores							
Constant	-6.11 (1.55)						
Readiness for change	1.25 (.40)	1.60	3.50	7.63	.002**	.14	.25

Note: * $p \leq .05$, ** $p \leq .005$

ASSESSING PARENTAL READINESS

Table 13

Demographics Variables as Predictors of Parents' Readiness

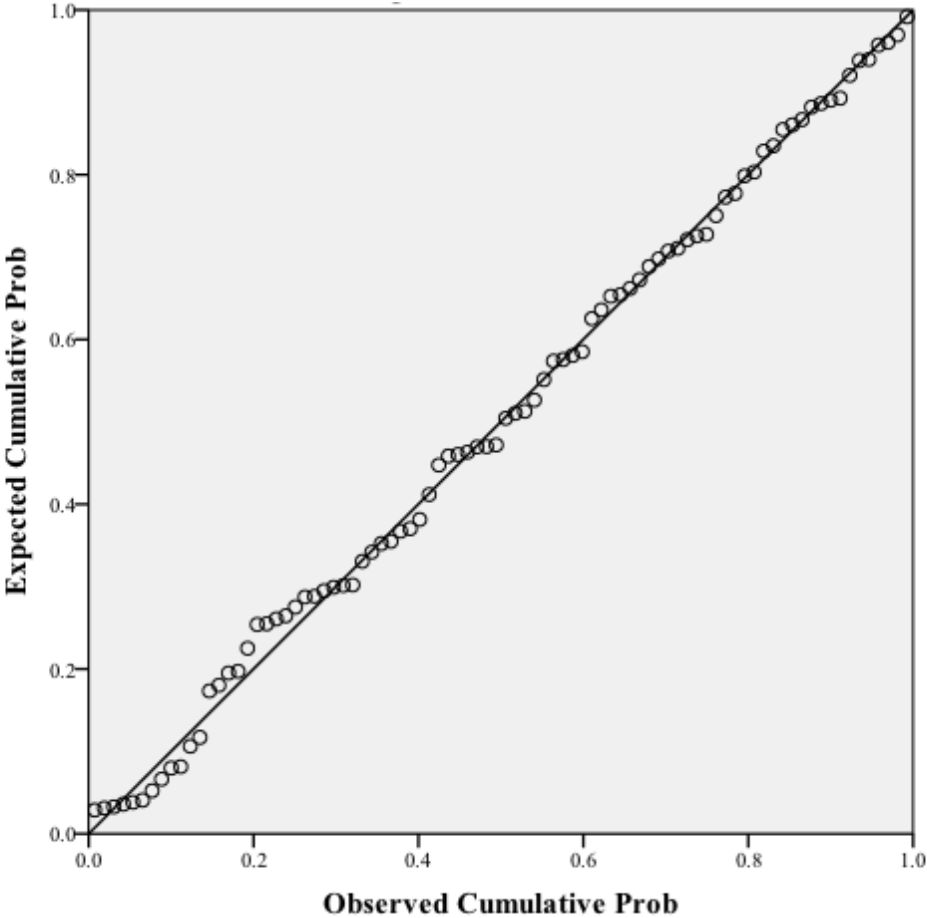
Model	Unstandardized Coefficients		Standardized Coefficients	95.0% Confidence Interval for B		Collinearity Statistics
	<u>B</u>	<u>SE B</u>		<u>Lower Bound</u>	<u>Upper Bound</u>	
(Constant)	2.762	0.57		1.628	3.897	
Parent Age	-0.007	0.019	-0.04	-0.045	0.031	0.881
Highest Parent Education	-0.009	0.107	-0.01	-0.222	0.205	0.762
Annual Income Financial Difficulties	-0.017	0.038	-0.061	-0.093	0.058	0.619
Child Difficulties	0.264	0.115	0.257**	0.035	0.493	0.907
	0.04	0.101	0.045	-0.161	0.242	0.89

Note: $R^2=.09$. ** $p=.024$

ASSESSING PARENTAL READINESS

Figure 3

Residual Plot for Multiple Regression: Demographics and Readiness



ASSESSING PARENTAL READINESS

Table 14

Child Disruptive Behavior as a Predictor of Parental Readiness

Model	Unstandardized Coefficients		Standardized Coefficients	95.0% Confidence Interval for B		Collinearity Statistics
	B	Std. Error		Lower Bound	Upper Bound	
(Constant)	1.873	0.268		1.34	2.406	
ECBI_Mean	0.267	0.135	0.251**	-0.002	0.536	0.502
ECBIPROB_Mean	1.411	0.645	0.279**	0.13	2.692	0.502

Note: R² = .24. **p ≤ .05

ASSESSING PARENTAL READINESS

Figure 4

Residual Plot for Linear Regression: Child Disruptive Behavior and Parental Readiness

