EXPLORING PARENTING PRACTICES, CLINICAL SYMPTOMATOLOGY, SELF-REGULATION, AND PERSONALITY IN A PRESCHOOL POPULATION

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF ABBREVIATIONS

Abbreviations

1. Preschool Behavioral Emotional Rating Scale (PreBERS)
2. Achenbach System of Empirically Based Assessment: Caregiver – Teacher Report Form (ASEBA: C-TRF)
3. Alabama Parenting Questionnaire – Preschool Revision (APQ-PR)
4. Oppositional Defiant Disorder (ODD)
5. Major Depressive Disorder (MDD)
6. Attention-Deficit/Hyperactivity Disorder (ADHD)
7. Conduct Disorder (CD)
8. American Psychological Association (APA)
9. Generalized Anxiety Disorder (GAD)
10. Alabama Parenting Questionnaire (APQ)
11. Diagnostic and Statistical Manual of Mental Disorders (DSM)
12. Emotional Regulation (ER)
13. School Readiness (SR)

ABSTRACT

EXPLORING PARENTING PRACTICES, CLINICAL SYMPTOMATOLOGY, SELF-REGULATION, AND PERSONALITY IN A PRESCHOOL POPULATION

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Research related to problem behaviors in childhood should occur during the preschool period because children are extremely susceptible to risk factors related to internalizing and externalizing behaviors during this time due to a heightened sensitivity to adverse events and change. Past research has found associations between internalizing and externalizing behaviors, harsh parenting practices, inconsistent parenting practices, and decreased self-regulatory abilities. In addition, research has shown that decreased problem behaviors are related to positive parenting practices and increased self-regulation. Certain personality factors have been previously correlated with self-regulation. Therefore, the present study focused on parenting practices, clinical symptomatology, child self-regulation, and child personality with regards to the presence of problem behaviors in preschoolers. Data for this study were collected from preschool teachers, who completed the PreBERS and ASEBA: C-TRF on the children in their classrooms, and from caregivers, who completed the APQ-PR and M5-PS-35 on their child. Results showed that parenting practices were not related to symptomatology as expected, and that, surprisingly, positive parenting was negatively correlated with self-regulation. As predicted, self-regulation was negatively correlated with symptomatology, however, no associations were found between personality factors and self-regulation. Self-regulation was also not found to be a moderator of punitive parenting and internalizing or externalizing behaviors.

CHAPTER ONE: INTRODUCTION

In order to develop effective prevention measures, we must first know which factors are associated with problem behaviors in childhood (Sawyer, Searle, Miller-Lewis, Sawyer, & Lynch, 2015). When researching factors related to problem behaviors in childhood, emphasis should be placed on the preschool period because children are extremely susceptible to risk factors related to internalizing and externalizing behaviors during this time due to a heightened sensitivity to adverse events and change (Carneiro, Dias, & Soares, 2016). Due to the importance of the preschool period in development, and the lifelong implications of untreated problem behaviors occurring in childhood, such as delinquency and substance abuse (Kaplow, Curran, Angold, & Costello, 2001; Kovacs, Goldston, & Gatsonis, 1993; Shaw et al., 2012), this study focused on parenting practices, clinical symptomatology, child self-regulation, and child personality. Specifically, this study examined the relationship between parenting practices and internalizing and externalizing behaviors, as well as the relationship between self-regulation and personality traits. Lastly, this study examined whether child self-regulation moderates the relationship between parenting practices and the development of internalizing and externalizing behaviors.

Parenting Practices

Concerning parenting practices, links have been found between externalizing behavior issues and harsh parenting practices, such as punishment, as well as other negative parenting behaviors (Olson et al., 2011b; Sangawi, Adams, & Reissland, 2015). Similarly, relaxed parenting behaviors, such as being inconsistent and ignoring problem behaviors, have been found to be related to internalizing issues during the preschool period (Williams et al., 2009).

Researchers have also shown that positive parenting practices have a positive impact on childhood development; specifically, warm parenting leads to a lower level of problem behaviors (Sangawi et al., 2015). Since parenting has been shown to be a powerful predictor of child behavior outcomes, this study examined parenting practices to determine if a relationship existed between parenting behaviors and problem behaviors (i.e., aggressiveness, disruptiveness, depressiveness and anxiousness) in this sample. This study also assessed whether any possible relationship between parenting and symptomatology could be explained by child self-regulation.

Clinical Symptomatology

This study will focus on symptomatology indicative of aggressive and rule-breaking behaviors and attention problems (externalizing behaviors), as well as symptomatology related to anxious and depressed behaviors (internalizing issues) (Rescorla, 2005), since symptomatology related to these specific externalizing and internalizing issues is concurrent with the most commonly diagnosed psychiatric disorders in preschoolers: ODD, MDD, anxiety disorders, and ADHD (Egger & Angold, 2006). Pertaining to the prevalence of clinical symptomatology during the preschool period, one study found that 7.1% of preschoolers suffered from a psychiatric disorder; within this 7.1%, 3.3% had an emotional disorder (i.e., anxiety disorders, depressive disorders, selective mutism, and obsessive compulsive disorder) and 3.5% had a behavioral disorder (i.e., ADHD, ODD, and CD) (Wichstrom et al., 2012).

Self-Regulation

Broadly, self-regulation involves the processes that enable individuals to adjust their behavior to comply with society's standards (Vohs & Baumeister, 2004). More specifically, self-regulation is an individual's ability to control behavioral and emotional responses, as well as cognitive processes (Jahromi & Stifter, 2008). Conceptually, children demonstrate overall self-

regulation when they adhere to standards and rules even in the absence of direct instruction (Grolnick & Farkas, 2002). In this study, self-regulation will be conceptually viewed using the model put forth by Murray, Rosanbalm, Christopoulos, and Hamoudi (2014), which includes the factors emotion regulation (e.g., using coping strategies to manage distress), behavioral regulation (e.g., physical actions that result from effective emotion regulation such as impulse control), and cognitive regulation (e.g., maintaining attention and decision-making). Self-regulation is included as a moderator in this study because research has shown that harsh parenting practices are associated with a lack of self-regulatory skills, positive parenting practices are associated with better self-regulation (Karreman, van Tujil, van Aken, & Dekovic, 2006), and preschoolers who exhibited higher levels of self-regulation displayed less externalizing and internalizing behaviors when they entered school (Sawyer et al., 2015).

Personality

Regarding personality in childhood, associations have been made between the traits exhibited in early childhood to those exhibited in later childhood and adulthood (Hagekull & Bohlin, 1998; Shiner, 2006). In this study, personality traits were measured using the five-factor model, which features the traits Extraversion, Agreeableness, Conscientiousness, Neuroticism, and Openness to Experience. Including personality as a variable in this study, and specifically focusing on the relationship between personality and self-regulation, is relevant because research has found associations between big five personality traits and self-regulation components in preschoolers (McCrae & Lockenhoff, 2010). This is consistent with the stance that personality traits affect the development of self-regulatory processes (Hoyle, 2010).

Overall data from this study enabled us to determine the relationship between parenting and problem behaviors, as well as between self-regulation and parenting, and self-regulation and

problem behaviors. We were also able to assess any affiliations between self-regulation and personality. Being able to assess these relationships in preschoolers was necessary due to the research linking children's internalizing and externalizing problems to harsh and inconsistent parenting practices (Olson et al., 2011b; Rubin & Burgess, 2002; Sangawi et al., 2015; Stormshak, Bierman, McMahon, Lengua, & Conduct Problems Prevention Research Group, 2000) and children's self-regulation skills (Eisenberg et al., 2001; Olson et al., 2011b). The research associating children's self-regulation skills with certain personality traits (Ahadi & Rothbart, 1994; Ehrler, Evans, & McGhee, 1999; Hampson et al., 2016) also made studying the relationship between these two constructs important. These findings will better inform future research and early childhood prevention and treatment efforts in the future.

CHAPTER TWO: LITERATURE REVIEW

Parenting Practices

Typically, parenting behaviors have been analyzed under the dimensions inconsistent, warm and positive, and punitive (Stormshak et al., 2000). Research has shown that parenting behaviors related to warmth and understanding are contingent on children's behaviors (Clerkin, Marks, Policaro, & Halperin, 2007). Relatedly, children's problem behaviors have been shown to precede harsh and/or inconsistent parenting practices (Colder, Lochman, & Wells, 1997; Cunningham & Boyle, 2002). Therefore, the ability to measure these three types of parenting practices is crucial in determining the effect of parenting on childhood problem behavior development since research has shown that all three of these types of parenting practices influence the development of internalizing and externalizing behaviors.

Clinical Symptomatology

Internalizing issues broadly refer to the anxious behaviors, general feelings of unhappiness, and negative sense of self a person may experience, while externalizing issues refer, broadly, to both nonaggressive and aggressive types of behaviors than an individual may exhibit (Achenbach, 2009). Even though diagnosis is not the focus of this study, since we are focusing on symptomatology that is associated with oppositional defiant disorder (ODD), anxiety disorders, major depressive disorder (MDD), and attention-deficit/hyperactivity disorder (ADHD), a brief overview of these disorder is warranted.

Children who meet the diagnostic criteria for ODD often exhibit irritability, spitefulness, and defiant behaviors, such as arguing, blaming and/or annoying others (American Psychiatric Association [APA], 2013). Some issues that frequently follow children diagnosed with ODD into

later childhood and adulthood, especially when left untreated, include substance abuse, occurrences of delinquency, and possibly conduct disorder (Steiner & Remsing, 2007).

Prevalent throughout the category of anxiety disorders are attributes associated with feelings of anxiety, such as feelings of tension and hyperawareness (APA, 2013). The occurrence of anxiety during childhood has also been found to predict anxiety during adulthood, as well as additional psychopathology (Rapee et al., 2009).

Some symptoms indicative of MDD in children are the presence of irritable mood, failure to meet expected weight, feeling tired, trouble sleeping, loss of interest in activities, and inattention (APA, 2013). More specific to preschoolers, symptoms may include increased feelings of guilt and lack of cheerfulness (Luby, 2010). Luby also noted that experiencing depression during the preschool period is predictive of experiencing depression later in life.

Behaviors that are associated with ADHD in children include inattention, organizational difficulties, difficulty with schoolwork, distractibility, forgetfulness, impatience, and disruptiveness (APA, 2013). Also, most children who are affected by ADHD continue to be affected throughout childhood and adulthood (Spencer, Biederrman, & Mick, 2007).

The controversy over diagnosing psychiatric disorders in preschoolers has been well noted (Tandon, Cardeli, & Luby, 2011). However, ADHD (Egger, Kondo, & Angold, 2006), depressive and anxiety disorders (Luby, 2013), and ODD, especially since the onset of ODD occurs near the end of the preschool period (Steiner & Remsing, 2007), have been found to be diagnosable in preschoolers. Regarding the course of these disorders, disruptive behaviors (Gardner & Shaw, 2008), ADHD, and MDD have been shown to increase across early childhood, while, generalized anxiety disorder (GAD) decreases during this time (Bufferd, Dougherty, Carlson, Rose, & Klein, 2012).

Parenting Practices and Clinical Symptomatology

Since internalizing and externalizing symptomatology, and the corresponding disorders, are evident in preschoolers, and because parenting practices influence symptomatology development (Olson et al., 2011b; Sangawi et al., 2015, Williams et al., 2009), it is important to analyze the effects of different types of parenting practices on behavior development.

Harsh parenting practices have been associated with increased oppositional behavior, increased overall disruptive behavior issues, and increased physical aggression in children (Stormshak et al., 2000). Similarly, the link between the presence of hostile parent behaviors, the lack of warm parental behaviors, and aggression in childhood, as well as the link between controlling parental behaviors and social withdrawal in childhood, has been noted (Rubin & Burgess, 2002). Also, harsh verbal punishment employed by fathers has been linked to childhood internalizing issues, while fathers' harsh verbal and physical punishment tactics, as well as mothers' harsh physical punishment practices, have been linked to childhood externalizing issues (McKee et al., 2007).

While the literature is concurrent about the harmful effects of harsh parenting practices, there is some dissent over the moderating effects of positive parenting practices on harsh parenting practices. The majority of the research has emphasized the buffering effects of positive parenting, specifically that when higher levels of positive, warm parenting practices were employed jointly with harsh parenting practices, children's internalizing issues decreased; increased warmth from mothers also moderated the effect of harsh discipline from fathers on children's behavior outcomes (McKee et al., 2007). Positive parenting practices have also been shown to moderate the intensity of conduct problems in adolescents who were diagnosed with ADHD during preschool (Chronis et al., 2007). Despite these findings, some research has also

found that harsh punishment practices are more predictive of conduct-related issues regardless of the presence of warm parenting (Gamez-Guadix, Straus, Carrobles, Munoz-Rivas, & Almendros, 2010). These conflicting findings highlight an area that needs further study in the parenting literature. It should also be noted that problem behaviors in childhood are not always the result of consistent harsh parenting practices, but rather, the result of inconsistent parenting practices, since inconsistency interferes with appropriate socialization and self-regulation development (Rubin & Burgess, 2002);

Self-Regulation

Self-regulation may be one of the most important developmental aspects children learn, and it is included in this study since under and over self-regulation can lead to the internalizing and externalizing symptomatology being measured, while appropriate self-regulation can help buffer the effects of harmful parenting. The key factors involved in self-regulation include response inhibition, emotion regulation, and the ability to maintain attention (Sawyer et al., 2015). Response inhibition, or behavioral self-regulation, has been defined as involving the utilization of coping strategies to delay gratification and control impulses, emotion regulation as the ability to self-soothe as to manage emotions, and cognitive self-regulation as involving the ability to maintain attention and problem solve (Murray et al., 2014). These factors all work together to repair discrepancies between an individual's current situation and expected situation/outcome(s) (Hoyle, 2010). Research has shown that when self-regulatory processes are carried out successfully, individuals are more likely to experience psychological and interpersonal stability, but ineffective self-regulatory processes can lead to instability and psychopathology (Hoyle, 2010). One reason an individual may be unable to develop self-regulation is the presence of severe, chronic stress, such as trauma and poverty (Murray et al.,

2014). The long-term outcomes associated with self-regulation (Moffitt et al., 2011) and its responsiveness to treatment (Murray et al., 2014) make it an important factor to study in childhood.

Self-Regulation in Preschoolers

Regarding the developmental process of self-regulation in childhood, physical self-regulation develops first, and is followed by emotional self-regulation, behavioral self-regulation, and, lastly, cognitive self-regulation, which begins to occur at 4 years of age due to the development of theory of mind (Rice, 2012). The preschool period is a crucial time for the development of self-regulation, as well as the implementation of any possible interventions, due to the extensive neurobiological changes that occur during early childhood; these changes are seen through overall increases in behavioral inhibition and attention, as well as the growing use of language in the regulation of emotions (Murray et al., 2014). A classic study of preschooler's self-regulation abilities found that children who were faced with an immediate reward, specifically a marshmallow, had a more difficult time delaying gratification for a more ideal reward, multiple marshmallows, than children who were not faced with the same reward, however, focusing on positive thoughts when the reward was and was not in sight increased delay time (Mischel, Ebbesen, & Zeiss, 1972). Also, one researcher found that children between the ages of 1 and 4 were better able to resist a prohibited activity than continue and complete an activity they disagreed with (Kochanska, Coy, & Murray, 2001). Preschoolers' decreased ability to complete an activity they disagreed with is interesting, especially when considering the relationship between self-regulation and parenting in early childhood.

Self-Regulation and Parenting Practices

The relationship between self-regulation and parenting has been described in terms of self-determination theory, since, based on this theory, children need environments that allow them to develop autonomy, competence, and relations with others in order to develop intrinsic motivation, a significant component of self-regulation (Grolnick & Farkas, 2002). An important aspect of these nurturing environments is individual(s), caregivers or parents, who provide co-regulation, which is comprised of various techniques such as modeling and scaffolding that are grounded in warmth and help children understand and regulate their emotions and behaviors (Murray et al., 2014). Supporting this, positive parenting strategies have been linked to better self-regulation development during the preschool period (Choe, Olson, & Sameroff, 2013). Similarly, parenting practices indicative of exerting an appropriate level of control over children's actions have been positively correlated with behaviors associated with self-regulation, while parenting practices indicative of exerting excessive control over children's actions have been associated with a lack of self-regulated behaviors (Karreman et al., 2006).

Self-Regulation and Clinical Symptomatology

Children's self-regulation is not only associated with parenting, but also with clinical symptomatology, as, in one study, children who were categorized as undercontrolled and displayed sadness with elevated levels of anger demonstrated more externalizing behaviors, while sadness with low levels of impulsivity and effortful control predicted internalizing behaviors (Eisenberg et al., 2001); also, children who displayed either externalizing behaviors or comorbid externalizing and internalizing behaviors had lower scores for inhibitory control and attentional regulation and higher scores for impulsivity. This is similar to other findings that stated when one facet of self-regulation, inhibitory control, was low, externalizing behavior

issues increased (Olson et al., 2011b). In addition, children who displayed internalizing behaviors, when compared with children who did not display any behavioral issues, showed lower levels of attentional regulation and impulsivity (Eisenberg et al., 2001).

Extending the relationship between self-regulation and clinical symptomatology to include the role of parenting, Morris et al. (2002) found that when children who display low levels of self-regulation are exposed to hostility from mothers they are likely to display externalizing behaviors, but negative parenting behaviors did not affect children who demonstrated better self-regulation skills. This is interesting since the presence of a co-regulator is vital in developing self-regulation skills, yet certain children who did not receive, or are currently not receiving, co-regulation from a parent were still able to develop self-regulation skills; perhaps pointing to the presence of a co-regulator other than a parent. A relationship has also been found between harsh parenting practices, lower levels of child self-regulation, and higher levels of externalizing behavior, specifically aggression, in preschoolers who were transitioning to school (Olson, Lopez-Duran, Lunkenheimer, Chang, & Sameroff, 2011a). Knowing the role parents play in children's self-regulation development, it is likely to expect that harsh parenting practices would be related to decreased self-regulation and increased behavior issues. However, the cases where children are able to develop these regulatory skills in the face of harsh parenting should be studied further in order to determine if other co-regulator(s) are responsible for this influence, or if there are other factors involved.

Personality

Knowing the importance of self-regulation in development and noting the relationship between self-regulatory processes and personality traits (Hoyle, 2010), it is worth analyzing if a relationship exists between children's personality traits and their self-regulation abilities. A

review by Digman (1990) noted that, in order to develop the five-factor model of personality that currently pervades personality research, studies first had to undertake the task of examining language to establish which terms would best describe individual differences; one study that was crucial during this phase of personality research was Allport and Odbert (1936). Fiske (1949) then used earlier, albeit complex, work by Cattell (1943) and discerned that five factors best depicted individual differences (Digman, 1990). Similar results were later found by Tupes and Christal (1961).

Before the five-factor model became the foremost personality model, other models of personality that were relevant in past research were offered by Eysenck (Eysenck & Eysenck, 1964) and Cattell (1965). Today, the five-factor model of personality consists of the dimensions: Extraversion, Agreeableness, Conscientiousness, Neuroticism, and Openness to Experience (McCrae & John, 1992). Extraversion is characterized by a fondness for company and social experiences, Agreeableness is characterized by expressing warmth and understanding, especially during conflicts, Conscientiousness is characterized as being goal-oriented and ambitious, Neuroticism is characterized by negative emotional experiences that can lead to anxious behaviors, and Openness to Experience is characterized by the tendency to crave variety (McCrae & Costa, 1999).

Personality in Preschoolers

Many studies have shown that the five-factor model of personality is useful for measuring individual differences in children (Angleitner & Ostendorf, 1994; Digman, 1994), even children as young as preschoolers (De Pauw, Mervielde, & Van Leeuwen, 2009; Grist & McCord, 2010; Kavcic, Podlesek, & Zupancic, 2012, Sroufe, Egeland, Carlson, & Collins, 2005). Specifically, a study by Abe and Izard (1999) showed that personality could be accurately

measured in children as young as 3.5 years old. Other research has correlated personality traits in preschoolers with anxiety symptoms (Gretkierwicz, 2016) and with social-emotional competence (Ingram & Grist, 2017). Despite these findings, many researchers are still using temperament models to measure individual differences in childhood. The basic dimensions of temperament involve the experience of negative emotions, Negative Affect, seeking out stimulating activities, Surgency, and perseverance, Effortful Control (Rettew, 2008). Regarding the relationship between temperament and personality traits, Extraversion has been correlated with Surgency, Neuroticism has been correlated with Negative Affect, and Conscientiousness has been correlated with Effortful Control (Grist & McCord, 2010). Since individual differences are studied less commonly in preschoolers using personality models, research correlating personality traits with self-regulation skills in preschoolers is sparse.

Personality and Self-Regulation

The relationship between personality traits and self-regulation abilities has been noted by various studies (Hoyle, 2010; McCrae & Löckenhoff, 2010). Specifically, higher levels of Conscientiousness and Agreeableness have been associated with increased self-regulatory abilities (Ahadi & Rothbart, 1994), while decreases in Conscientiousness and Agreeableness have been linked to a lack of self-regulatory behavior (Ehrler et al., 1999; Martin, Watson, & Wan, 2000). Also, higher levels of childhood Conscientiousness have been related to better self-regulatory processes in adulthood (Hampson et al., 2016).

Present Study

A review of parenting measures noted that positive behaviors such as parental warmth, and, inversely, negative behaviors such as hostility are typical affective dimensions examined when studying parenting behaviors (Smith, 2011). Numerous studies have noted the relationship

between parenting behaviors and the development of internalizing and externalizing behaviors during childhood (Baker & Hoerger, 2012), and children's self-regulatory abilities (Murray et al., 2014) have been shown to affect the development of symptomatology. Self-regulation has also been shown to have a basis in the five personality factors (McCrae & Löckenhoff, 2010).

Self-regulation was chosen as a moderator in this study because of the impact these skills have on future development (Roberts, Kuncel, Shiner, Caspi, & Goldberg, 2007; Murray et al., 2014), which made assessing whether this variable could buffer negative parenting practices in the context of developing behavior issues during the preschool period important. ODD, anxiety disorders, MDD, and ADHD were chosen to represent clinical symptomatology in this study because these disorders are the most commonly diagnosed psychiatric disorders during preschool (Egger & Angold, 2006).

Previous research has analyzed the relationship between children's personality traits and the presence of behavior issues using parenting as a moderator (Prinzie et al., 2003), with other research focusing on child personality as a moderator of parenting as it relates to aggressive behaviors (Smack et al., 2015), and self-regulation as a mediator of parenting in relation to future psychopathology (Baker & Hoerger, 2012). However, this is the first study to address the relationship between parenting practices and clinical symptomatology in preschoolers with self-regulation as a moderator while also looking at the relationship between self-regulation and personality.

Hypotheses and Statistical Procedures

Hypothesis 1: Punitive parenting practices will be positively correlated with externalizing and internalizing behaviors. Inconsistent parenting practices will be positively correlated with internalizing behaviors. Positive parenting practices will be negatively correlated with

externalizing and internalizing behaviors. Pearson correlations will be conducted between the APQ-PR Punitive Parenting subscale and the ASEBA: C-TRF Externalizing and Internalizing scales, the APQ-PR Inconsistent Parenting subscale and the ASEBA: C-TRF Internalizing scale, and the APQ-PR Positive Parenting subscale and the ASEBA: C-TRF Externalizing and Internalizing scales.

Hypothesis 2: Self-regulation will be negatively correlated with externalizing and internalizing behaviors. Totals from the ER and SR scales of the PreBERS will be totaled to create an overall Self-Regulation scale. Pearson correlations will be computed between the Self-Regulation scale and the ASEBA: C-TRF Externalizing and Internalizing Problems scales. Pearson correlations will also be computed between each of the PreBERS scales (ER and SR) and the ASEBA: C-TRF Internalizing and Externalizing Problems scales.

Hypothesis 3: Self-regulation will be negatively correlated with punitive parenting. Self-regulation will be positively correlated with positive parenting. Pearson correlations will be computed between the Self-Regulation scale and the APQ-PR Punitive Parenting scale and the Positive Parenting scale. Pearson correlations will also be computed between each of the PreBERS scales and the APQ-PR Punitive Parenting scale and the Positive Parenting scale.

Hypothesis 4: Agreeableness and Conscientiousness will be positively correlated with self-regulation. Pearson correlations will be computed between the 2 M5-PS-35 scales and the Self-Regulation scale. Pearson correlations will also be computed between the 2 M5-PS-35 scales and each of the PreBERS scales.

Hypothesis 5: Self-regulation will moderate the effects of punitive parenting on the presence of internalizing and externalizing problems. Moderation using regression analyses will be computed on the Punitive Parenting subscale of the APQ-PR, the Internalizing and

Externalizing Problems subscales of the ASEBA, and the Self-Regulation scale using the Hayes PROCESS macro for SPSS (Hayes, 2017).

CHAPTER THREE: METHODOLOGY

Participants

The present study included preschool-aged participants, (4%) 3 years old, (84%) 4 years old, and (4%) 5 years old. Caregivers completed the parenting questionnaire (APQ-PR) and the personality measure (M5-PS-35), and teachers completed the symptomatology scale (ASEBA: C-TRF) and the behavioral and emotional rating scale (PreBERS) on each child in their classroom. Teachers were asked to complete these scales due to the amount of time spent with the children and the amount of observed interactions between the children. Only one parenting questionnaire was completed per child. Preschool participants consisted of 100 preschoolers, 59 (59%) males and 41 (41%) females. With regards to ethnicity, 61% were Caucasian, 1% were African-American, 4% were Hispanic, 1% were Asian, and 19% were Native American.

Measures

Alabama Parenting Questionnaire-Preschool Revision. The lack of instruments available to measure parenting practices during preschool led researchers to examine the applicability of a modified version of the APQ (Shelton, Frick, Wootton, 1996) for use within this population. During the development of the Alabama Parenting Questionnaire (APQ; Shelton et al., 1996), parenting behaviors were categorized under five constructs: Parental Involvement, Positive Parenting, Poor Monitoring/Supervision, Inconsistent Discipline, and Corporal Punishment, in order to determine the relationship between parenting practices and disruptive child behaviors. The Alabama Parenting Questionnaire – Preschool Revision (APQ-PR; Clerkin et al., 2007), a modified version of the APQ designed for preschoolers, focused on parenting behaviors that fall under the categories: Punitive, Positive, and Inconsistent; Punitive Parenting

focused on behaviors that involve physical and verbal punishment and/or abuse, Positive Parenting focused on behaviors that are grounded in warmth, and Inconsistent Parenting focused on behaviors that indicate a more permissive parenting style, which can border on neglect. The APQ-PR eliminated age-irrelevant items and used a 5-point Likert scale (1 = never, 5 = always) to measure parenting behaviors under these three constructs because of the considerable overlap found between the original five constructs on the APQ. Items such as "you have a friendly talk with your child" and "you let your child know when he/she is doing a good job with something" indicate Positive Parenting, "you threaten to punish your child and then do not actually punish him/her" and "your child talks you out of being punished after he/she has done something wrong" indicate Inconsistent Parenting, and "you spank your child when he/she has done something wrong" and "you ignore your child when he/she is misbehaving" indicate Harsh Parenting. High factor loadings onto these condensed scales confirm good construct validity (Clerkin et al., 2007). Concerning reliability, Cronbach's alphas for the three constructs were .82 for Positive Parenting, .74 for Inconsistent Parenting, and .63 for Punitive Parenting (Clerkin et al., 2007). In the present study, Cronbach's alphas for the three constructs were .71 for Positive parenting, .77 for Inconsistent parenting, and .47 for Punitive parenting.

Achenbach System of Empirically Based Assessment: Caregiver Teacher Report Form 1 ½ - 5. This study is focused on teasing out the factors associated with problem behaviors during the preschool period, rather than diagnosing and measuring the severity of the disorders related to the clinical symptoms we are observing. Therefore, this study will utilize the Achenbach System of Empirically Based Assessment Caregiver-Teacher Report Form (ASEBA: C-TRF; Achenbach & Rescorla, 2000) to measure clinical symptomatology. The ASEBA: C-TRF was derived using items from the Child Behavior Checklist 2-3, as well as items developed

specifically for the C-TRF (Achenbach & Rescorla, 2000). This checklist measures problem behaviors using a 3-point Likert scale (0 = not true [as far as you know], 2 = very true or often true of the child [based on the past 2 months]) as being in the Normal, Borderline, or Clinical range over the *DSM* orientated scales: Affective Problems, Anxiety Problems, Pervasive Developmental Problems, Attention Deficit/Hyperactivity Problems, Stress Problems, Autism Spectrum Problems, and Oppositional Defiant Problems, as well as the syndrome scales: Emotionally Reactive, Anxious/Depressed, Somatic Complaints, Withdrawn, Attention Problems, Aggressive Behavior, and Sleep Problems (Achenbach & Rescorla, 2000). This study will only utilize the Internalizing Problems and Externalizing Problems scales that are comprised of the syndrome scales Emotionally Reactive, Anxious/Depressed, Somatic Complaints, and Withdrawn for Internalizing and Attention Problems and Aggressive Behavior for Externalizing. Item examples from the C-TRF include "sulks a lot" and "worries" for Emotionally Reactive, "looks unhappy" and "is fearful" for Anxious/Depressed, "headaches (without medical cause)" and "stomachaches or cramps (without medical cause)" for Somatic Complaints, "apathetic or unmotivated" and "shows little affection toward people" for Withdrawn, "can't sit still" and "is inattentive" for Attention Problems, and "is defiant" and "hits others" for Aggressive Behaviors (Achenbach & Rescorla, 2000). Regarding reliability and validity, strong test-retest reliability (r = .81) has been found, and construct and criterion validity have been confirmed through a rigorous empirical process (Achenbach & Rescorla, 2000). For the present study, Cronbach's alphas for the scales used were .84 for Internalizing Problems and .95 for Externalizing Problems.

Preschool Behavioral Emotional Rating Scale. The Preschool Behavioral Emotional Rating Scale (PreBERS; Epstein & Synhorst, 2009) was derived from the Behavioral and

Emotional Rating Scale (Epstein, 2004) and measures preschoolers' strengths and weaknesses in the context of emotional regulation, school readiness, social confidence, and family involvement using a 3-point Likert scale (0: not much like the child – 3: very much like the child). Since this study is focused on measuring self-regulation, which includes the regulation of emotions, behaviors, and attention, we will use focus on the subscales Emotional Regulation (ER) and School Readiness (SR) to assess self-regulation. The ER subscale measures emotional and behavioral control, and the SR subscale measures attention skills, as well as language skills, during the preschool period (Cress, Synhorst, Epstein, & Allen, 2012). Item examples from the ER subscale include "shows concern for feelings of others" and "takes turns in play situations"; item examples from the SR subscale include "persists with tasks until completed" and "pays attention to tasks" (Cress et al., 2012). Totals from these scales will be summed to create an overall Self-Regulation scale, and analyses will be conducted using this overall scale as well as the individual scales. Concerning reliability, Cronbach's alphas for the four subscales were measured at ages 3, 4, and 5, and were, respectively: .94, .95, and .96 for Emotional Regulation, .93, .94, and .95 for School Readiness, .90, .90, and .91 for Social Confidence, and .96, .97, and .98 for Family Involvement (Epstein, Synhorst, Cress & Allen, 2009). In the present study, Cronbach's alphas for the scales used were .96 for Emotional Regulation and .96 for School Readiness. Research has confirmed both criterion (Epstein, et al., 2009) and construct (Epstein & Synhorst, 2009) validity for this instrument.

M5-PS-35. The M5-PS-35 is an abbreviated form of the M5-PS preschool personality questionnaire that was originally adapted from the M5 adult personality questionnaire (Scheck, 2010). The M5-PS-35 was designed to assess big five personality traits in preschoolers using a 5-point Likert scale (0: totally irrelevant, 4: very relevant), and reduced the number of items from

90 to 35; this decrease in items increased construct validity (Grist, Socha, & McCord, 2012). Items such as “radiates joy” and “is always on the go” indicate Extraversion, “worries about things” and “is afraid of many things” indicate Neuroticism, “is easy to satisfy” and “loves to help others” indicate Agreeableness, “tries to excel at what they do” and “works hard” indicate Conscientiousness, and “has a vivid imagination” and “likes to solve complex problems” indicate Openness to Experience (Grist et al., 2012). Concerning reliability, Cronbach’s alphas were .90 for Agreeableness, .87 for Conscientiousness, .77 for Extraversion, .79 for Neuroticism, and .71 for Openness to Experience (Grist et al., 2012). In the present study, Cronbach’s alphas for the scales used were .84 for Agreeableness and .79 for Conscientiousness.

Procedure

Teachers were recruited from a local preschool program. These preschool teachers completed the Caregiver-Teacher Report Form and PreBERS on the children in their classrooms. Caregivers of the children in the preschool program completed the APQ-PR and M5-PS-35 on the children in their classroom.

CHAPTER FOUR: RESULTS

Part of the data collected for this study was nested since teachers reported on multiple children in their classrooms. To account for the nested data, all analyses were computed using mean-centered data. Means and standard deviations were calculated for all study variables. On the APQ-PR, the minimum score for the Positive Parenting scale was 12, and the maximum score was a 60 (M = 56.13, SD = 2.93). Scores on the Inconsistent Parenting scale could range from 7 to 35 (M = 12.88, SD = 3.7). The minimum score for Punitive Parenting was a 5, and the maximum score was a 25 (M = 7.86, SD = 1.86). For the PreBERS, the minimum scores for the Emotional Regulation and School Readiness scales were a 0, and the maximum scores were a 39. For ER, the mean was 27.27, SD = 7.35. For SR, the mean was 27.39, SD = 7.34. For the ASEBA: C-TRF, scores for the Internalizing Problems scale could range from 0 to 64 (M = 45.57, SD = 9.38), and between 0 and 68 for the Externalizing Problems scale (M = 47.96, SD = 10.03). The minimum score for the Agreeableness scale was 0, and the maximum was 44 (M = 40.54, SD = 7.38). The minimum score for the Conscientiousness scale was 0, and the maximum was 36 (M = 36, SD = 5.24).

Correlations

Pearson correlations were computed on the 3 scales of the APQ-PR and the Internalizing and Externalizing Problems scales of the C-TRF (Table 1). Parenting dimensions were not correlated with either Internalizing or Externalizing Behaviors.

Table 1

Correlations between Parenting Dimensions and Clinical Symptomatology

	Internalizing Problems	**Externalizing Problems**
Punitive Parenting	-.052	.009
Inconsistent Parenting	.072	.000
Positive Parenting	.162	.188

Pearson correlations were computed on Self-Regulation (i.e., the combined ER and SR scales of the PreBERs) and the Internalizing and Externalizing Problems scales of the C-TRF (Table 2). Self-Regulation was negatively correlated with Internalizing Problems ($r = -.509$, $N = 90$, $p < .01$) and with Externalizing Problems ($r = -.666$, $N = 90$, $p < .01$).

Table 2

Correlations between Self-Regulation and Clinical Symptomatology

	Internalizing Problems	**Externalizing Problems**
Self-Regulation	-.509**	-.666**

**p<.01

Pearson correlations were also computed on the ER and SR scales of the PreBERS and the Internalizing and Externalizing Problems scales of the C-TRF (Table 3). Emotion Regulation was negatively correlated with Internalizing Problems ($r=-.479$, $N=90$, $p<.01$) and with Externalizing Problems ($r=-.658$, $N=90$, $p<.01$). School Readiness was also negatively correlated with Internalizing Problems ($r=-.452$, $N=90$, $p<.01$) as well as Externalizing Problems ($r=-.559$, $N=90$, $p<.01$).

Table 3

Correlations between Emotion Regulation, School Readiness. and Clinical Symptomatology

	Internalizing Problems	**Externalizing Problems**
Emotion Regulation	-.479**	-.658**
School Readiness	-.452**	-.559**

****p<.01

Pearson correlations were computed on Self-Regulation (i.e., the combined ER and SR scales of the PreBERS) and 2 scales of the APQ-PR (Table 4). Although self-regulation was not negatively correlated with punitive parenting, self-regulation was negatively correlated with Positive Parenting ($r = -.254$, $N = 72$, $p < .05$).

Table 4

Correlations between Self-Regulation and Parenting Dimensions

	Self-Regulation
Punitive Parenting	.044
Positive Parenting	-.254*

***p<.05

Pearson correlations were computed on the ER and SR scales of the PreBERS and 2 scales of the APQ-PR (Table 5). Neither Emotion Regulation or School Readiness were negatively correlated with Punitive Parenting. Emotion Regulation was not correlated with Positive Parenting, but School Readiness was negatively correlated with Positive Parenting ($r=.298$, $N=72$, $p=.011$).

Table 5

Correlations between Emotion Regulation, School Readiness, and Parenting Dimensions

	Punitive Parenting	**Positive Parenting**
Emotion Regulation	.022	-.164
School Readiness	.058	-.298*

*****p<.05

Pearson correlations were computed on Self-Regulation (i.e., the combined ER and SR scales of the PreBERS) and 2 factors of the M5-PS-35 (Table 6). No correlations were found between Self-Regulation and Agreeableness or Conscientiousness.

Table 6

Correlations between Self-Regulation and Personality

	Agreeableness	**Conscientiousness**
Self-Regulation	.108	.059

Pearson correlations were also computed on the ER and SR scales of the PreBERS and 2 factors of the M5-PS-35 (Table 7). No correlations were found between Emotion Regulation and School Readiness and Agreeableness and Conscientiousness.

Table 7

Correlations between Emotion Regulation, School Readiness, and Personality

	Agreeableness	**Conscientiousness**
Emotion Regulation	.082	.022
School Readiness	.117	.085

Moderation

We also hypothesized that self-regulation would moderate the effects of punitive parenting on the presence of internalizing and externalizing problems. Two models of moderation using regression analyses were computed on the Punitive Parenting scale of the APQ-PR, the Self-Regulation scale of the PreBERS, and the Internalizing Problems and Externalizing Problems scales of the C-TRF (Figure 1). Self-Regulation was not found to be a moderator for Punitive Parenting and Internalizing Problems, $b = .01$, $t(78) = .29$, $p = .78$, or Externalizing Problems, $b = .01$, $t(78) = .27$, $p = .79$.

CHAPTER FIVE: DISCUSSION

Researching factors related to problem behaviors in childhood is crucial in order to develop effective prevention measures (Sawyer et al., 2015). Given the research linking children's internalizing and externalizing problems to harsh and inconsistent parenting practices (Olson et al., 2011; Rubin & Burgess, 2002; Sangawi et al., 2015; Stormshak et al., 2000) and children's self-regulation skills (Eisenberg et al., 2001; Olson et al., 2011b), further study was needed to understand this process in preschoolers. In addition, due to the significance of self-regulation on future development and past research noting the relationship between children's self-regulation skills and certain personality traits (Ahadi & Rothbart, 1994; Ehrler et al., 1999, Hampson et al., 2016), further analysis of the relationship between these two constructs during the preschool period was also warranted.

To our knowledge, this is the first study to address the relationship between parenting practices, clinical symptomatology, self-regulation, and personality in preschoolers. Even though our hypotheses were not fully supported, these factors should continue to be studied during the preschool period due to preschoolers' susceptibility to risk factors and the lifelong implications of untreated problem behaviors occurring in childhood (Carneiro et al., 2016, Kaplow et al., 2001; Kovacs et al., 1993; Shaw et al., 2012). These findings should aid the direction of future studies and subsequent early childhood prevention and treatment efforts.

Hypotheses Discussed

Based on the literature, relationships between parenting practices and internalizing and externalizing behaviors were expected, specifically positive relationships between Punitive Parenting and Internalizing and Externalizing Problems, Inconsistent Parenting and Internalizing

Problems, and negative relationships between Positive Parenting and Internalizing and Externalizing Problems. However, none of the parenting dimensions were significantly correlated with either internalizing or externalizing behaviors. Therefore, the first hypothesis was not supported.

The second hypothesis was supported: Self-Regulation was negatively correlated with Internalizing and Externalizing Problems. Further analysis showed that both aspects of self-regulation that were measured (i.e., Emotional Regulation and School Readiness) were independently negatively correlated with Internalizing and Externalizing Problems.

The third hypothesis was not supported: Self-Regulation was not negatively correlated with Punitive Parenting or positively correlated with Positive Parenting. However, Self-Regulation was negatively correlated with Positive Parenting. Further analysis showed that, specifically, only School Readiness was negatively correlated with Positive Parenting.

The fourth hypothesis was not supported: Agreeableness and Conscientiousness were not positively correlated with Self-Regulation.

The fifth hypothesis was not supported: Self-Regulation did not moderate the relationship between Punitive Parenting and Internalizing or Externalizing Problems.

Previous Research

The majority of the findings from this study contradict those from previous studies. Regarding parenting and symptomatology, past research found associations between harsh parenting practices and externalizing behaviors (Olson et al., 2011b; Sangawi et al., 2015) and internalizing behaviors (McKee et al., 2007; Rubin & Burgess, 2002), however, no such associations were found in the present study. Also, inconsistent parenting behaviors were previously correlated with internalizing behaviors in preschoolers (Williams et al., 2009), but

this correlation was also not found in this study. One study also linked positive parenting practices with lower levels of problem behaviors (Sangawi et al., 2015), but significant negative correlations were not found between positive parenting and either internalizing or externalizing behaviors.

Findings from the present study did corroborate previous research concerning associations between self-regulation and symptomatology (Sawyer et al., 2015), specifically that, preschoolers' self-regulatory skills were negatively correlated with internalizing and externalizing behaviors.

Not surprisingly, previous studies found that positive parenting practices were associated with better self-regulation skills in preschoolers (Choe et al., 2013), while harsher parenting practices were associated with decreased self-regulatory abilities (Karreman et al., 2006). In this study, no associations were found between harsh parenting practices and self-regulation, however, positive parenting practices were negatively correlated with self-regulation, specifically school readiness. This finding is not supported in the literature and would require further study to understand.

Although the literature on the relationship between Big Five personality traits and self-regulation skills is sparse, one study noted that, specifically, Agreeableness and Conscientiousness were related to better self-regulation (Ahadi & Rothbart, 1994). However, in this study, a relationship between either Agreeableness or Conscientiousness was not found with self-regulation.

Despite previous research noting that punitive parenting practices combined with children's lower self-regulation skills leads to externalizing problems, as well as that punitive parenting practices combined with better self-regulatory skills in children leads to healthy

development (Morris et al., 2002; Olson et al., 2011a), self-regulation was not found to moderate the relationship between parenting practices and symptomatology in this study.

Implications

Due to insignificant results, the present study offers limited implications. One implication that can be derived from these findings is the challenges associated with measuring harsh parenting. Due to the controversial nature of the questions asked in the Punitive Parenting scale, it is difficult to determine whether the low average scores reported were truthful or the result of bias. Similar difficulties associated with measuring harsh parenting practices have been noted previously (Clerkin et al., 2007). This is complicated even further by the low level of reliability found for the Punitive Parenting scale, which implies a validity issue, although this was not an issue in previous studies using this questionnaire (Clerkin et al., 2007).

Another implication of this study is the need for a measure of self-regulation for preschoolers, due to the majority of hypothesized findings for the self-regulation aspects measured by the PreBERS not being supported or in direct conflict with previous findings.

Limitations and Future Directions

One limitation of this study was the use of a parenting measure that had a low level of reliability, specifically for the Punitive Parenting subscale. Future studies could try to discern the cause of this low level of reliability and modify the Punitive Parenting scale of the APQ-PR to resolve this issue, or alternative parenting measures with better reliability may need to be used.

Despite finding the expected correlations between self-regulation and internalizing and externalizing behaviors, no other expected correlations with self-regulation were found, which implies this study was possibly limited by the scales used to measure self-regulation. The use of these two subscales to measure self-regulation resulted from a lack of self-regulation measures

available for use with preschoolers. In the future, researchers interested in studying self-regulatory processes in preschoolers may find it useful to modify an existing self-regulation measure for use with younger children.

Another limitation of this study was that all data was either parent or teacher-report, which makes it susceptible to bias. In the future, studies should include data from multiple sources, including behavioral observations by researchers, especially for parenting.

This study included a rural Appalachian sample. Future studies may want to include data from multiple sites to create a more diverse sample. Lastly, the study was limited by its correlational design. If feasible, future studies should consist of a longitudinal design to help distance findings from purely correlational results, especially when researching parenting and children's individual differences.

Conclusion

Results from the present study do not support previous research to the extent hypothesized. However, despite these findings, research should still be conducted on these risk factors during the preschool period due to findings from previous studies and the importance of the preschool period in development (Carneiro et al., 2016). The results of this study did expose certain methodological issues that may have negatively impacted findings, and researchers should refer to the limitations section of this paper before pursuing similar studies. Overall, the present study provides generally contradictory evidence for the constructs and associations measured, which may be helpful when considering future directions for conducting related research.

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Appendix A: Alabama Parenting Questionnaire - Preschool Revision

Alabama School-aged Assessment Service

APQ - Preschool Revision

(Parent Form)

Child's Name:_____ ID#:_____

Date Completed:_____

Parent Completing Form (Circle one): Mother Father Other_____

Instructions: The following are a number of statements about your family. Please rate each item as to how often it *TYPICALLY* occurs in your home. The possible answers are Never (1), Almost Never (2), Sometimes (3), Often (4), Always (5). *PLEASE ANSWER ALL ITEMS.*

	Never	Almost Never	Sometimes	Often	Always
1. You have a friendly talk with your child	1	2	3	4	5
2. You let your child know when he/she is doing a good job with something	1	2	3	4	5
3. You threaten to punish your child and then do not actually punish him/her	1	2	3	4	5
4. You volunteer to help with special activities that your child is involved in	1	2	3	4	5
5. You reward or give something extra to your child for obeying you or behaving well	1	2	3	4	5
6. You play games or do other fun things with your child	1	2	3	4	5
7. You child talks you out of being punished after he/she has done something wrong	1	2	3	4	5
8. You asked your child about his/her day at school	1	2	3	4	5

	Never	Almost Never	Sometimes	Often	Always
9. You help your child with his/her work	1	2	3	4	5
10. You feel that getting your child to obey you is more trouble than it's worth	1	2	3	4	5
11. You compliment your child when he/she does something well	1	2	3	4	5
12. You drive your child to a special activity	1	2	3	4	5
13. You praise your child if he/she behaves well	1	2	3	4	5
14. You hug or kiss your child when he/she has done something well	1	2	3	4	5
15. You talk to your child about his/her friends	1	2	3	4	5
16. You let your child out of a punishment early (like lift restrictions earlier than you originally said)	1	2	3	4	5
17. You get so busy that you forget where your child is and what he/she is doing	1	2	3	4	5
18. Your child is not punished when he/she has done something wrong	1	2	3	4	5
19. You attend parent-teacher meetings/conferences, or other meetings at your child's school	1	2	3	4	5
20. You tell your child that you like it when he/she helps out around the house	1	2	3	4	5

	Never	Almost Never	Sometimes	Often	Always
You don't tell your child where you are going	1	2	3	4	5
22. The punishment you give your child depends on your mood	1	2	3	4	5
23. Your child is at home without adult supervision	1	2	3	4	5
24. You spank your child when he/she has done something wrong	1	2	3	4	5
25. You ignore your child when he/she is misbehaving	1	2	3	4	5
26. You slap your child when he/she has done something wrong	1	2	3	4	5
27. You take away privileges from your child as a punishment	1	2	3	4	5
28. You send your child to his/her room as a punishment	1	2	3	4	5
29. You hit your child with a belt, switch or other object when he/she has done something wrong	1	2	3	4	5
30. You yell or scream at your child when he/she has done something wrong	1	2	3	4	5
31. You calmly explain to your child why his/her behavior was wrong when he/she misbehaves	1	2	3	4	5
32. You use time out (make him/her sit or stand in a corner) as a punishment	1	2	3	4	5

Appendix B: Achenbach System for Empirically Based Assessment: Caregiver—Teacher Report Form

1 ½ - 5

For office use only
ID #

CHILD'S FULL NAME First Middle Last		**PARENTS' USUAL TYPE OF WORK, even if not working now.** *Please be specific — for example, auto mechanic, high school teacher, homemaker, laborer, lathe operator, shoe salesman, army sergeant.*
CHILD'S GENDER Boy Girl	CHILD'S AGE	CHILD'S ETHNIC GROUP OR RACE
		FATHER'S TYPE OF WORK _____
		MOTHER'S TYPE OF WORK _____
TODAY'S DATE Mo._____Day_____Year _____	CHILD'S BIRTHDATE Mo._____Day_____Year ____	**THIS FORM FILLED OUT BY: (print your full name)**
Please fill out this form to reflect *your* view of the child's behavior even if other people might not agree. Feel free to write additional comments beside each item and in the space provided on page 2. ***Be sure to answer all items.***		Your role at the school or care facility: pimarily educational (teacher) primarily care (caregiver)
Name & address of school or care facility: _____		Your training for this position: _____
		Your experience in child care or early education:_____years.

What kind of a facility is it? (Please be specific, e.g., home day care, day care center, nursery school, preschool, school readiness class, Early Childhood Special Education, Headstart, Kindergarten, etc.)

What is the average number of children in the child's group or class? _____children in the child's group or class.

How many hours per week does this child spend at the facility? ____hours per week.

For how many months have you known this child? ____months.

How well do you know him/her? 1. Not well 2. Moderately well 3. Very well

Has he/she ever been referred for a special education program or special services? Don't know 0
No 1 Yes - what kind and when?

Below is a list of items that describe children. For each item that describes the child ***now or within the past 2 months***, please circle the ***2*** if the item is ***very true or often true*** of the child. Circle the ***1*** if the item is ***somewhat or sometimes true*** of the child. If the item is ***not true*** of the

child, circle the ***0***. Please answer all items as well as you can, even if some do not seem to apply to the child.

0= Not True (as far as you know) 1 = Somewhat or Sometimes True 2 = Very True or Often True

0	**1**	**2**	1.	Aches or pains (without medical cause; **do not** include stomach or headaches)	**0**	**1**	**2**	22.	Cruelty, bullying, or meanness to others
					0	**1**	**2**	23.	Doesn't answer when people talk to him/her
0	**1**	**2**	2.	Acts too young for age	**0**	**1**	**2**	24.	Difficulty following directions
0	**1**	**2**	3.	Afraid to try new things	**0**	**1**	**2**	25.	Doesn't get along with other children
0	**1**	**2**	4.	Avoids looking others in the eye	**0**	**1**	**2**	26.	Doesn't know how to have fun; acts like a little adult
0	**1**	**2**	5.	Can't concentrate, can't pay attention for long					
0	**1**	**2**	6.	Can't sit still, restless, or hyperactive	**0**	**1**	**2**	27.	Doesn't seem to feel guilty after misbehaving
0	**1**	**2**	7.	Can't stand having things out of place	**0**	**1**	**2**	28.	Disturbs other children
0	**1**	**2**	8.	Can't stand waiting; wants everything now	**0**	**1**	**2**	29.	Easily frustrated
0	**1**	**2**	9.	Chews on things that aren't edible	**0**	**1**	**2**	30.	Easily jealous
0	**1**	**2**	10.	Clings to adults or too dependent	**0**	**1**	**2**	31.	Eats or drinks things that are not food—***do not*** include sweets (describe): _____
0	**1**	**2**	11.	Constantly seeks help					
0	**1**	**2**	12.	Apathetic or unmotivated					
0	**1**	**2**	13.	Cries a lot	**0**	**1**	**2**	32.	Fears certain animals, situations, or places other than daycare or school (describe):
0	**1**	**2**	14.	Cruel to animals					
0	**1**	**2**	15.	Defiant					
0	**1**	**2**	16.	Demands must be met immediately					
0	**1**	**2**	17.	Destroys his/her own things	**0**	**1**	**2**	33.	Feelings are easily hurt
0	**1**	**2**	18.	Destroys property belonging to others	**0**	**1**	**2**	34.	Gets hurt a lot, accident-prone
0	**1**	**2**	19.	Daydreams or gets lost in his/her thoughts	**0**	**1**	**2**	35.	Gets in many fights
0	**1**	**2**	20.	Disobedient	**0**	**1**	**2**	36.	Gets into everything
0	**1**	**2**	21.	Disturbed by any change in routine	**0**	**1**	**2**	37.	Gets too upset when separated from parents

0	1	2	38.	Explosive and unpredictable behavior	0	1	2	71. Shows little interest in things around him/her
0	1	2	39.	Headaches (without medical cause)	0	1	2	72. Shows too little fear of getting hurt
0	1	2	40.	Hits others	0	1	2	73. Too shy or timid
0	1	2	41.	Holds his/her breath	0	1	2	74. Not liked by other children
0	1	2	42.	Hurts animals or people without meaning to	0	1	2	75. Overactive
0	1	2	43.	Looks unhappy without good reason	0	1	2	76. Speech problem (describe): _____
0	1	2	44.	Angry moods				
0	1	2	45.	Nausea, feels sick (without medical cause)	0	1	2	77. Stares into space or seems preoccupied
0	1	2	46.	Nervous movements or twitching (describe):	0	1	2	78. Stomachaches or cramps (without medical cause)
					0	1	2	79. Overconforms to rules
					0	1	2	80. Strange behavior (describe):
0	1	2	47.	Nervous, highstrung, or tense				
0	1	2	48.	Fails to carry out assigned tasks	0	1	2	81. Stubborn, sullen, or irritable
0	1	2	49.	Fears daycare or school	0	1	2	82. Sudden changes in mood or feelings
0	1	2	50.	Overtired	0	1	2	83. Sulks a lot
0	1	2	51.	Fidgets	0	1	2	84. Teases a lot
0	1	2	52.	Gets teased by other children	0	1	2	85. Temper tantrums or hot temper
0	1	2	53.	Physically attacks people	0	1	2	86. Too concerned with neatness or cleanliness
0	1	2	54.	Picks nose, skin, or other parts of body	0	1	2	87. Too fearful or anxious
				(describe): _____	0	1	2	88. Uncooperative
					0	1	2	89. Underactive, slow moving, or lacks energy
0	1	2	55.	Plays with own sex parts too much	0	1	2	90. Unhappy, sad, or depressed
0	1	2	56.	Poorly coordinated or clumsy	0	1	2	91. Unusually loud
0	1	2	57.	Problems with eyes without medical cause	0	1	2	92. Upset by new people or situations
				(describe): _____				(describe): _____
0	1	2	58.	Punishment doesn't change his/her behavior	0	1	2	93. Vomiting, throwing up (without medical cause)
0	1	2	59.	Quickly shifts from one activity to another	0	1	2	94. Unclean personal appearance
0	1	2	60.	Rashes or other skin problems (without	0	1	2	95. Wanders away
				medical cause)	0	1	2	96. Wants a lot of attention
0	1	2	61.	Refuses to eat	0	1	2	97. Whining
0	1	2	62.	Refuses to play active games	0	1	2	98. Withdrawn, doesn't get involved with others
0	1	2	63.	Repeatedly rocks head or body	0	1	2	99. Worries
0	1	2	64.	Inattentive, easily distracted				100. Please write in any problems the child has that
0	1	2	65.	Lying or cheating				were not listed above.
0	1	2	66.	Screams a lot	0	1	2	_____
0	1	2	67.	Seems unresponsive to affection	0	1	2	_____
0	1	2	68.	Self-conscious or easily embarrassed	0	1	2	_____
0	1	2	69.	Selfish or won't share				
0	1	2	70.	Shows little affection toward people				

Underline any you are concerned about.

Does the child have any illness or disability (either physical or mental)? Circle: No Yes—
Please describe:

What concerns you most about the child?

Please describe the best things about the child:

Appendix C: M5-PS-35

M5-PS-35 Questionnaire ©

Cathy L. Grist and David M. McCord
Western Carolina University

Child's Name: _____ Age: _____ M F
Date:_____

Child's Ethnicity (circle one): White Black Hispanic Asian Native American Other

Teacher's Name: _____ Years of Experience: _____

This is a personality questionnaire, which should take about 10 minutes. There are no right or wrong answers to these questions; you simply respond with the choice that describes the child best.

Without spending too much time dwelling on any one item, just give the first reaction that comes to mind.

In order to score this test accurately, it is very important that you answer *every* item, without skipping any. You may change an answer if you wish

		Totally Irrelevant	Somewhat Irrelevant	Neither	Somewhat Relevant	Very Relevant
1	Worries about things	O	O	O	O	O
2	Has a vivid imagination	O	O	O	O	O
3	Completes tasks successfully	O	O	O	O	O
4	Breaks rules	O	O	O	O	O
5	Is easy to satisfy	O	O	O	O	O
6	Likes to solve complex problems	O	O	O	O	O
7	Radiates joy	O	O	O	O	O
8	Tries to excel at what they do	O	O	O	O	O
9	Is always on the go	O	O	O	O	O
10	Has a lot of fun	O	O	O	O	O
11	Is afraid of many things	O	O	O	O	O
12	Works hard	O	O	O	O	O
13	Becomes overwhelmed by events	O	O	O	O	O
14	Is relaxed most of the time	O	O	O	O	O
15	Does not understand things	O	O	O	O	O
16	Gets upset easily	O	O	O	O	O
17	Knows how to get around the rules	O	O	O	O	O
18	Loves to help others	O	O	O	O	O
19	Yells at people	O	O	O	O	O
20	Gets stressed out easily	O	O	O	O	O
21	Tells the truth	O	O	O	O	O

22	Is interested in many things	O	O	O	O	O
23	Does the opposite of what is asked	O	O	O	O	O
24	Insults people	O	O	O	O	O
25	Has difficulty starting tasks	O	O	O	O	O
26	Likes to begin new things	O	O	O	O	O
27	Gets back at others	O	O	O	O	O
28	Laughs aloud	O	O	O	O	O
29	Acts without thinking	O	O	O	O	O
30	Adapts easily to new situations	O	O	O	O	O
31	Doesn't see the consequences of things	O	O	O	O	O
32	Amuses his/her friends	O	O	O	O	O
33	Messes things up	O	O	O	O	O
34	Is demanding	O	O	O	O	O
35	Finishes what he/she starts	O	O	O	O	O

☐ Preschool Norms
☐ Head Start Norms
☐ ECSE Norms

Preschool Behavioral and Emotional Rating Scale

PreBERS

Summary/Response Form

Michael H. Epstein Lori Synhorst

Section 1. Identifying Information

Name _____ Female ☐ Male ☐ Age _____

	Year	Month	Day
Date of Rating	_____	_____	_____
Date of Birth	_____	_____	_____

Examiner's Name _____

Examiner's Title _____

Parent/Guardian _____

School _____

Rater's Name _____

Relationship to Child _____

Section 2. Results of the PreBERS

Subscale	Raw Score	%ile Rank	Scaled Score	*SEM*	Descriptive Term
1. Emotional Regulation (ER)	_____	_____	☐	1	_____
2. School Readiness (SR)	_____	_____	☐	1	_____
3. Social Confidence (SC)	_____	_____	☐	1	_____
4. Family Involvement (FI)	_____	_____	☐	1	_____

Section 3. Composite Performance

Composite	Subscale Scaled Scores ER	SR	SC	FI	Sum of Scaled Scores	%ile Rank	Descriptive Term	Strength Index
PreBERS Strength Index	___	___	___	___	◯	_____	_____	☐

Section 4. Other Pertinent Information

Who referred the student? _____

What was the reason for the referral? _____

Parental permission obtained on (date) _____

PreBERS results included in staffing or planning conference? ☐ Yes ☐ No

Section 5. Descriptive Terms

Scaled Score	1–3	4–5	6–7	8–12	13–14	15–16	17–20
Descriptive Term	Very Poor	Poor	Below Average	Average	Above Average	Superior	Very Superior
Strength Index Score	<70	70–79	80–89	90–110	111–120	121–130	>130

1 2 3 4 5 6 7 8 9 10 18 17 16 15 14 13 12 11 10 09

Additional copies of this form (#12847) may be purchased from
PRO-ED, 8700 Shoal Creek Blvd., Austin, TX 78757-6897
800/897-3202, Fax 800/397-7633, www.proedinc.com

Section 6. Response Form

Directions: The *Preschool Behavioral and Emotional Rating Scale* (PreBERS) contains a series of statements that are used to rate a preschool child's behaviors and emotions in a positive way. Read each statement and circle the number that corresponds to the rating that best describes the child's status over the past 2 months. If the statement is very much like the child, circle the 3; if the statement is like the child, circle the 2; if the statement is not much like the child, circle the 1; if the statement is not at all like the child, circle the 0. In making your rating, it is important that you consider this child's behavior in relation to other preschool children of similar age and gender. Rate each statement to the best of your knowledge of the child.

Statement	very much like the child	like the child	not much like the child	not at all like the child	ER	SR	SC	FI
1. Demonstrates a sense of belonging to family	3	2	1	0				___
2. Trusts a significant person in his or her life	3	2	1	0				___
3. Understands the meaning of words similar to same-age peers	3	2	1	0		___		
4. Is self-confident	3	2	1	0			___	
5. Acknowledges painful feelings	3	2	1	0			___	
6. Maintains positive family relationships	3	2	1	0				___
7. Asks for help	3	2	1	0			___	
8. Controls anger toward others	3	2	1	0	___			
9. Carries on conversations	3	2	1	0		___		
10. Expresses remorse for behavior that hurts others	3	2	1	0	___			
11. Shows concern for the feelings of others	3	2	1	0	___			
12. Interacts positively with parents	3	2	1	0				___
13. Reacts to disappointment calmly	3	2	1	0	___			
14. Persists with tasks until completed	3	2	1	0		___		
15. Stands up for self	3	2	1	0			___	
16. Handles frustration with challenging tasks	3	2	1	0	___			
17. Demonstrates age-appropriate hygiene skills	3	2	1	0		___		
				Column subtotals				

Statement	very much like the child	like the child	not much like the child	not at all like the child	ER	SR	SC	FI
18. Takes turns in play situations	3	2	1	0	___			
19. Is involved in family discussions	3	2	1	0				___
20. Accepts closeness and intimacy of others	3	2	1	0			___	
21. Identifies own feelings	3	2	1	0			___	
22. Makes friends	3	2	1	0			___	
23. Accepts responsibility for own actions	3	2	1	0	___			
24. Interacts positively with siblings	3	2	1	0				___
25. Loses a game gracefully	3	2	1	0	___			
26. Asks others to play	3	2	1	0			___	
27. Understands complex sentences	3	2	1	0		___		
28. Listens to the conversation of others	3	2	1	0		___		
29. Participates in family activities	3	2	1	0				___
30. Accepts "no" for an answer	3	2	1	0	___			
31. Pays attention to tasks	3	2	1	0		___		
32. Listens attentively when stories are read	3	2	1	0		___		
33. Follows multistep directions	3	2	1	0		___		
34. Is enthusiastic about life	3	2	1	0			___	
35. Respects the rights of others	3	2	1	0	___			
36. Shares with others	3	2	1	0	___			
37. Apologizes to others when wrong	3	2	1	0	___			
38. Retells stories or recent events	3	2	1	0		___		
39. Is kind toward others	3	2	1	0	___			
40. Uses details in talking with others	3	2	1	0		___		
41. Works independently	3	2	1	0		___		
42. Uses numbers and color words correctly	3	2	1	0		___		
				Column subtotals				
				Previous page column subtotals				
				Total Raw Score				

Section 7. Key Questions

1. What are the child's favorite hobbies or activities? What does the child like to do? _____

2. What is the child's favorite activity to do with the family? _____

3. What chores are the child's responsibility in relationship to the family? _____

4. How does the child react to disappointments or frustrations? _____

5. How does the child play or interact with peers? _____

6. At a time of need, to whom (e.g., parent, neighbor, friend, relative) would this family turn for support? _____

7. Describe the best things about this child. _____

Section 8. Interpretations and Recommendations