

ASSOCIATIONS BETWEEN DIMENSIONAL PARENTING STYLE AND ADOLESCENT  
PERSONALITY AND PSYCHOLOGICAL DYSFUNCTION

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## ABSTRACT

### ASSOCIATIONS BETWEEN DIMENSIONAL PARENTING STYLE AND ADOLESCENT PERSONALITY AND PSYCHOLOGICAL DYSFUNCTION

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The current project examined the relationship between parenting style and adolescent personality and psychopathology. Adolescent traits and symptoms were measured by the MMPI-A-RF. Adolescents ages 13-17 ( $N = 172$ ; 63% female) were administered MMPI-A-RFs as part of a clinical psychological assessment battery. When these adolescents entered a wilderness therapy residential treatment center, they and their parents also completed additional measures, including of parenting style, if they assented to participate in a separate clinical outcomes study. Parenting style was measured across three dimensions: acceptance, firm/behavioral control, and psychological control. The analysis of this project explored bivariate correlations (Pearson's  $r$ ) between parenting style dimensions and MMPI-A-RF substantive scales and subscales. Although no *a priori* hypotheses were supported at the pre-established level of significance, a number of exploratory findings have important implications for causal models of child development and personality theory.

## INTRODUCTION

The relationship between parent and child can be a source of emotional attachment, authoritative guidance, and behavior modeling. Although there have been notable arguments for parenting being less critical to development than external experiences and peer relationships (Harris, 1998), studies have shown that the difference between parenting styles could account for over 30% of the variation in children's emotional and behavioral adjustment (Kaufmann et al., 2000). This includes correlations with mood, behavior, academic achievement, and physical health (Gadeyne et al., 2004; Merlin et al., 2013; Sahithya et al., 2019). Given the potential for parenting styles to significantly impact a child's development, it is therefore a crucial area of research.

### **Parenting Style**

The pattern of attitudes and actions through which a parent communicates with and socializes their child makes up that person's "parenting style" (Baumrind, 1991). Through longitudinal research on child-rearing practices with preschoolers, Baumrind (1966) identified three major parenting styles: authoritative, authoritarian, and permissive. She argued that these prototypes encompassed the most commonly-occurring patterns of behavior on seven dimensions of control: (1) punitive vs. non-punitive disciplinary practices, (2) use vs. non-use of withdrawal of love, (3) explanations offered and give-and-take encouraged vs. rigid maintenance of status distinctions, (4) high vs. low demands for household responsibilities and orderly behavior, (5) restricts vs. permits autonomy, (6) uses high vs. low power assertion, and (7) firm vs. lax control. Later factor analyses instead yielded two broad dimensions of demandingness and responsiveness (Maccoby & Martin, 1983). Baumrind's original three prototypes, along with a

fourth of neglectful (Maccoby & Martin, 1983), reflect the four quadrants created by dichotomizing the two dimensions of this conceptual model of parenting.

Authoritative parents are both demanding and responsive. They are assertive and offer clear standards for conduct but are not intrusive or restrictive. They want their children to balance assertiveness with social responsibility, and to exhibit both self-regulation and cooperativeness. Authoritarian parents are demanding but not responsive. They value obedience; they provide clear sets of rules and expect those rules to be followed without explanation. Permissive parents are responsive but not demanding. They provide warmth but do not require mature behavior or self-regulation. Neglectful parents are neither demanding nor responsive to their child's needs. They may disengage from their parenting responsibilities altogether (Baumrind 1991; Maccoby & Martin, 1983).

Lee et al. (2006) looked at parenting practices, which are domain-specific and goal-directed, versus overall parenting style that may not be tied to a particular outcome. This research found that parenting practices converge into the same four prototypes. This supports the idea that each of Baumrind's prototypes represents a naturally occurring pattern of parental affect, techniques, and values. The basis for categorizing parenting styles into these four groups has been shown to be empirically sound and supported by research, and the vast majority of research until this point in the area of parenting styles has used Baumrind's classifications in their analyses.

### **Parenting and Adolescent Dysfunction**

Studies of parenting methods and child development have continuously demonstrated that parenting styles have significant correlations and predictive powers relating to a wide variety of factors in children's development. Many studies have shown that parenting style can impact

mood, behavior, physical health, academic achievement, and overall quality of life (Dornbusch et al., 1987; Gadeyne et al., 2004; Merlin et al., 2013; Rezai, Niaraki, & Rahimi, 2013; Rhee et al., 2006; Sahithya et al., 2019). In the realm of psychopathology, parenting style has been shown to correlate with both internalizing and externalizing symptomatology. Authoritative parenting is widely accepted as the most beneficial parenting style for child development and outcomes, while authoritarian and permissive styles can be detrimental to child outcomes in differing ways (Merlin et al., 2012). Neglectful parenting likely leads to the worst outcomes of the four styles, with children from these households being less mature, less competent, and more troubled than children from households that practice any of the other three parenting styles (Steinberg et al., 2006).

### **Internalizing Dysfunction**

Parenting style has been shown to have a significant correlation with children's emotional adjustment (Kaufmann et al., 2000). An authoritarian parenting style has been linked to lower emotional stability and less psychological flexibility, making children more susceptible to stressors (Wolfradt et al., 2003). Compared to children from authoritative households, children from authoritarian parenting styles are more likely to struggle with anxiety and depression (McKinney et al., 2011; Nguyen, 2008) and engage in suicidal ideation and behavior (Greening et al., 2010). These children also tend to be more withdrawn and distrustful of others (Baumrind, 1971). Both authoritarian and permissive parenting styles have been linked to low scores in self-esteem (Sahithya et al., 2019), although permissive parenting is shown to be correlated with low levels of anxiety (Wolfradt et al., 2003). An authoritative parenting style is associated with positive social adjustment, high self-esteem, strong self-control, and low risk of suicide ideation (Greening et al., 2010; Nguyen, 2008; Trinkner et al., 2012).



## **Externalizing Dysfunction**

Children from authoritarian households also show higher levels of externalizing behavior (Rinaldi & Howe, 2012). They were more likely to experiment with substances like nicotine and alcohol at young ages (Adalbjarnardottir & Hafsteinsson, 2001) and to use substances more frequently than their peers (Bronte-Tinkew et al., 2006; Greening et al., 2010). They are also more prone to attention problems and hyperactivity (Chen et al., 1997; Merlin et al., 2013). Meanwhile, children of permissive parents were more likely to demonstrate a lack of impulse control and therefore have a higher risk for self-destructive behaviors (Greening et al., 2010). They show negative behavioral patterns including resistance, hostility, a lack of social responsibility, and antisocial behavior (Sahithya et al., 2019). Children from both authoritarian and permissive households were more likely than their peers from authoritative households to engage in delinquent behaviors, including property destruction, stealing, and violence (Trinkner et al., 2012). Children from authoritative households are less likely to participate in risky behaviors or use substances than children with parents from other parenting styles (Bronte-Tinkew et al., 2006)

While the studies described above have shown substantial correlations between parenting styles and various psychological problems, there are several limitations to the current body of research that this project aims to address. First, previous studies have relied on narrowly focused symptom measures (e.g., Beck Depression Inventory; Beck et al., 1996) rather than a comprehensive assessment of psychopathology and personality, limiting the potential findings of each individual study. Second, the use of a categorical definition of parenting style obscures the potential independent influence of demandingness, responsiveness, and other dimensions of parenting behaviors and attitudes.

## Measuring Adolescent Traits and Symptoms

In contrast to specific symptom measures, the Minnesota Multiphasic Personality Inventory-Adolescent-Restructured Form (MMPI-A-RF; Archer et al., 2016) is a broadband measure of adolescent psychopathology and personality (Handel, 2016). It was designed as an adolescent counterpart to the MMPI-2-RF (Tellegen & Ben-Porath, 2008) and was created using the scales and development methods of the MMPI-2-RF as models.

Although the original MMPI was widely used with adolescents, there were several limitations to using the MMPI with this younger population, including concerns about item content, a lack of adolescent-specific scales, problems with extreme responding, and inadequate norms. These led to the development and release of the original MMPI-A in 1992. Later revisions of the MMPI and then the MMPI-2 demonstrated significant psychometric advancements from the methods used to develop the original MMPI and MMPI-A. The MMPI-2-RF represented a substantial revision and modernization of the MMPI-2, with the revision process aiming to create a comprehensive set of scales representing an efficient yet exhaustive assessment of the most clinically relevant variables within the MMPI-2 item pool (Ben-Porath & Tellegen, 2008/2011).

Likewise, Archer et al. (2016) developed the MMPI-A-RF with the goals of developing an adolescent measure of demoralization, identifying the major distinctive components of the Clinical Scales that are separate from demoralization, developing additional substantive scales where appropriate, developing new and revised validity scales, and revising the PSY-5 scales. A further consideration was overall test length; MMPI-A-RF's 241 items represent a significant decrease in test length from the original 478-item MMPI-A.

Many of the items included in various MMPI-2-RF scales do not exist in the MMPI-A item pool, and many items in the MMPI-A item pool do not exist in the MMPI-2-RF item pool. Therefore, the MMPI-A-RF scales frequently do not include the exact same items as their corresponding adult versions. However, the shared scale names are indicative of an attempt to maintain a degree of comparability between the MMPI-2-RF and the MMPI-A-RF so that test users could easily transition between the two forms (Handel, 2016).

As a result, the MMPI-A-RF is a comprehensive measure of adolescent traits and symptoms, which is substantially shorter than the MMPI-A and closely replicates the advancements of the MMPI-2-RF. However, given the relatively recent development of the MMPI-A-RF, its functionality and correlates have not been fully explored in any area of research, including relationships with parenting styles.

#### Measuring Parental Control

As previously mentioned, most of the current body of research on parenting has taken a categorical approach, sorting parents into Baumrind's (1966) discrete parenting prototypes for analysis rather than analyzing the complete dimensional scales. Therefore, this study measured parenting style dimensionally using the Parent Report of Parenting Behavior Inventory (PRPBI; Schaefer, 1965a, 1965b; Schludermann & Schludermann, 1970). The PRPBI is an adaptation of the Child Report of Parenting Behavior Inventory (CRPBI; Schaefer, 1965a, 1965b), with modified question wording to be a self-report.

The CRPBI was created in 1965 to measure children's perceptions of their parents' behaviors and validate the ability of children to judge their parent's attitudes accurately. Based on factor analyses of psychologists' ratings of parental behavior, a formulation of parental behavior was created with two constructs: Love versus Hostility and Autonomy versus Control.

This conceptual model of parenting behavior was consistent with the preexisting research at the time and with the model that Baumrind would use to distinguish her parenting prototypes (Schaefer, 1965a).

Later that same year, Schaefer revised his model based on additional factor analyses to include three factors. The first and most clearly defined factor remained Love versus Hostility. The second was renamed Psychological Control versus Autonomy, given significant loadings of items measuring possessiveness and control through guilt. This factor was described as measuring psychological means of influencing a child's activities and behaviors in a way that would discourage the child from developing as an individual apart from the parent. The third factor, labeled Firm Control versus Lax Control, became a measure of creating and enforcing rules and limits on a child's behavior (Schaefer, 1965b). Although Schaefer (1965a, 1965b) replicated the construct of parental psychological control through multiple factor analyses and demonstrated that psychological control can be particularly inhibitive to child development, the construct received very little research in the years that followed. Multiple major reviews of parenting literature in the decades that followed either wholly ignored the construct or mentioned it briefly without elaboration or emphasis. Therefore, the PC scale of the CRPBI/PRPBI remained the only measure of psychological control existing on a parent-child assessment instrument for over 30 years (Barber, 1996).

However, the CRPBI has now been criticized for its inability to adequately distinguish between psychological and behavioral control, despite the existence of both the FC and PC scale (Barber, 2002). Items such as “is always telling me how I should behave” and “only keeps rules when it suits her/him” demonstrate conceptual ambiguity between control of psychological processes and control of behavior (Barber, 1996.). This is an important distinction because

developmental psychology suggests that children need both adequate psychological autonomy and sufficient behavior regulation to develop a clear sense of personal identity while still learning the rules and structures of society (Barber et al., 1994). In other words, behavioral control and psychological control may affect development independently and perhaps even in opposite ways. To conceptually and empirically distinguish parental control of behaviors from parental control of psychological experience, Barber (1996) created the Psychological Control Scale (PCS), which this study also utilized as an alternative for the PC scale of the CRPBI.

The purpose of the current project was to conduct an exploratory analysis of the correlations between dimensional measures of parenting style and the MMPI-A-RF substantive scales. While a causal direction cannot be addressed by this analytic design, and causal relationships are likely to be complex, this analysis is an important step in beginning to map possible associations between dimensional representations of parenting style and a comprehensive model of adolescent traits and symptoms.

## METHODS

### Participants

This sample consisted of 172 adolescents who enrolled and completed treatment at Trails Carolina, a wilderness therapy program in western North Carolina. This study utilized measures administered to the adolescent and a parent. Ages ranged from 13.1 years old to 17.9 years old at the time of testing ( $M = 15.8$  years). The sample was 62.8% female ( $n=108$ ) and 37.2% male ( $n=64$ ). See Table 1 for additional demographic information.

### Measures Minnesota Multiphasic Personality Inventory-Adolescent-Restructured Form (MMPI-A-RF)

The MMPI-A-RF (Archer et al. 2016) is a self-report inventory measuring adolescent psychopathology and personality. It consists of 241 true-false questions that produce six Validity scales, three Higher-Order Scales (H-O), nine Restructured Clinical Scales (RC), twenty-five Specific Problems Scales (SP), and five Personality Psychopathology Scales (PSY-5). The scales on the MMPI-A-RF overlap extensively with those of the MMPI-2-RF. However, the MMPI-A-RF does not include all items from the MMPI-2-RF and instead includes additional adolescent-specific items. The alphas for internal consistency vary markedly from .45 (RC9) to .80 (RCd) for males and .52 (RC9) to .83 (RCd) for females (Archer et al. 2016). Convergent and discriminant validity were established with a wide range of external criteria (Archer et al., 2016).

### Parent Report of Parenting Behavior (PRPBI)

The PRPBI (Schaefer, 1965a, 1965b; Schludermann & Schludermann, 1970) is a 30-item inventory designed to measure parenting style and behavior. Each item is answered on a 3-point Likert-type scale. The PRPBI is an adaptation of the Child Report of Parenting Behavior Inventory (CRPBI; Schaefer, 1965a, 1965b), but with modified question wording to be a self-

report. Both the CRPBI and the PRPBI measure parenting style on three dimensions: acceptance versus rejection (AC), psychological control versus psychological autonomy (PC), and firm control versus lax control (FC) (See Appendix A for complete questionnaire). The AC scores describe parental warmth, nurturance, and expression of affection, with high scores indicating more warmth. The PC scale captures psychological pressure relevant to guilt-induction and manipulation and parent-centered rearing behavior, with higher scores indicating more manipulation. The FC scale assesses strict discipline and punishment, with higher scores

*Table 1. Demographic Breakdown of Participants*

Adolescent Ethnicity	<i>n</i>	%
White/Caucasian	148	86%
Black (African American)	2	1%
Asian American/AAPI	5	3%
Hispanic/Latino	5	3%
Native American	1	1%
Other	10	6%
Annual Family Income	<i>n</i>	%
Less than \$20,000/year	1	1%
\$21,000 - \$40,000	3	2%
\$41,000 - \$60,000	6	4%
\$61,000 - \$70,000	5	3%
\$71,000 - \$90,000	11	6%
\$91,000 - \$100,000	16	9%
More than \$100,000	130	75%
Marital Status of Primary Parent	<i>n</i>	%
Single	8	5%
Married	127	74%
Divorced	23	13%
Separated	4	2%
Other	9	5%
Highest Level of Primary Parent Schooling	<i>n</i>	%
11 <sup>th</sup> grade or below	1	1%
High school diploma (or equivalent)	2	1%
Some college	21	12%
Undergraduate college degree	63	37%
Some graduate school	3	2%
Master's degree	43	25%
Doctoral degree (M.D., Ph.D., J.D., etc.)	38	22%
Total Children in Primary Parent Household	<i>n</i>	%

One	79	46%
Two	61	35%
Three	25	15%
Four	5	3%
Five or more	2	1%
Adolescent Relation to Primary Parent		
	<i>n</i>	%
Adopted	33	19%
Biological	138	81%

indicating more rigid discipline (Wei & Kendall, 2014). The alpha values for Acceptance, Psychological control, and Firm control have been previously reported as 0.75-0.73, 0.72-0.63, and 0.65-0.63, respectively (Schludermann & Schludermann, 1988). The test-retest correlations ranged from 0.79-0.89. This inventory has been reported to have strong discriminative validity (Locke & Prinz, 2002).

### **Psychological Control Scale (PCS)**

The PCS (Barber et al., 1994) is a 20-item measure to assess parental control. Items are grouped into three sections: parental behavior, parental knowledge of a child's activities, and parental experiences with the child. Items in the first two sections are answered on a 3-point scale, while items in the third section are answered on a 4-point scale (See Appendix B for complete questionnaire). It produces two scales. The BC scale measures behavioral control, and the PC scale measures psychological control. These scales have been shown to have good internal consistency (Barber et al., 2005; Fung & Lau, 2012; Loukas et al., 2005) and has been reported to have strong reliability and validity (Rohner & Khaleque, 2003).

### **Procedure**

Archival MMPI-A-RF and clinical outcome data were utilized for the current study. Adolescents completed MMPI-A-RFs as a component of psychological evaluation while enrolled in Trails Carolina, a wilderness therapy program located in western North Carolina. The MMPI-



A-RFs were administered by the Clinical Division of the Center for Research, Assessment, and Treatment Efficacy (CReATE) in Asheville, NC. Approximately 67% of participants completed the MMPI-A-RFs within six weeks of their treatment admittance date. Less than 5% of the participants completed the MMPI-A-RFs after they completed treatment.

Adolescents and their parents also completed additional measures of the therapeutic process, treatment effectiveness, family functioning, and psychopathology if they assented to participate in a separate clinical outcomes study (and parents provided informed consent for their participation), run by the Research Division of CReATE. A complete list of assessments in the Research Division battery can be found in Appendix C. Adolescents and their parents were administered the research assessment battery at two time points: (1) within 7 days of program admittance, and (2) within 7 days of program graduation.

The Clinical Division and Research Division databases are separate entities but have been linked for the purpose of this IRB-approved study. To protect the confidentiality of health data belonging to minors, the process for linking the two databases involved an extensive anonymizing process. First names and last names existing in the research database were used to extract matching records from the clinical database. Those clinical records were matched to the corresponding research database deidentified participant numbers. Only then were clinical data and research data combined into a new, joint, anonymous data set.

The linking process found 310 participants who existed in both the Research Division database and the Clinical Division database. Participants were excluded if they did not complete both measures of parenting style, leaving a final sample size of 172.

## DATA ANALYSIS

Bivariate correlations were calculated between the five parenting style scales and MMPI-A-RF substantive scales and subscales. Validity scales were used to identify invalid protocols in line with the MMPI-A-RF technical manual cut-off points. Invalid protocols were excluded from the analysis; specifically, inclusion criteria required a CNS score below 10, a VRIN-r score below 75, a TRIN-r score below 75, and a CRIN score below 75. Because the sample population is in clinical treatment, scores on substantive scales and subscales were not designated as outliers. Scores falling outside of three standard deviations from the mean on the parenting style scales were designated as outliers and were Winsorized to not exceed three standard deviations from the mean.

Correlations were calculated using Pearson's  $r$ . Given the 42 scales from the MMPI-A-RF and the five scales from the parenting style measures, the relatively large number of bivariate correlations produced created a substantial chance of a Type I error. Therefore, when evaluating hypotheses, a threshold for interpretation will be set at a Pearson  $r$  value  $\geq |.30|$ , indicating at least a medium effect size (Cohen, 1988). Further exploratory analyses will be conducted, which will consider meaningful any correlation 1) whose effect size is at least small, with a Pearson  $r$  value  $\geq |.10|$  (Cohen, 1988), and 2) for which the 95% confidence interval does not cross zero.

A power analysis using the G\*Power computer program (Buchner et al., 1988) indicated that a total sample of 84 people would be needed to detect medium effects ( $r = .30$ ) with 80% power using a significance level of .05. The current sample has reached 172 participants who completed both measures.

### **Hypotheses**

Based on the small body of existing research that uses a dimensional approach to measuring parenting style, the following hypotheses were created:

- I. PRPBI Acceptance vs. Rejection (AC) Scale
  - a. Internalizing (EID): negative correlation
    - i. Demoralization (RCd): negative correlation (Garber et al., 1997; Zubizarreta et al., 2019)
    - ii. Self-Doubt (SFD) : negative correlation (Finkenauer et al., 2005)
  - b. Externalizing (BXD): negative correlation
    - i. Substance Abuse (SUB): negative correlation (Donaldson et al., 2016)
  - c. Personality
    - i. Negative Emotionality/Neuroticism (NEGE-r): negative correlation (Ayoub et al., 2018)
- II. PRPBI Firm vs. Lax Control (FC) Scale & PCS Behavioral Control (BC) Scale
  - a. Externalizing (BXD): negative correlation
    - i. Conduct Problems (CNP): negative correlation (Aunola & Nurmi, 2005)
    - ii. Substance Abuse (SUB): negative correlation (Weiss & Schwartz, 1996)
  - b. Personality
    - i. Negative Emotionality/Neuroticism (NEGE-r): positive correlation (Weiss & Schwartz, 1996)
- III. PRPBI Psychological Control (PC) Scale & PCS Psychological Control (PC) Scale
  - a. Internalizing (EID): positive correlation
    - i. Anxiety (AXY): positive correlation (Taylor et al., 2012)
    - ii. Demoralization (RCd): positive correlation (Barber, 1994)
    - iii. Self-Doubt (SFD): positive correlation (Finkenauer et al., 2005)
  - b. Externalizing (BXD): positive correlation

- i. Conduct problems (CNP): positive correlation (Hoeve et al., 2009)
- ii. Aggression (AGG): positive correlation (Nelson & Crick, in Barber 2001)

## RESULTS

## Hypotheses

The means and standard deviations of all variables of interest are presented in Table 2 (data are for the current valid sample of 172). To examine the relationships between the MMPI-A-RF substantive scales and the dimensions of parenting style, correlational analyses were conducted. Table 3 presents the correlations between the 9 substantive scales and the 5 parenting style scales for which *a priori* hypotheses were generated. As noted earlier, at least a moderate effect size, represented by a correlation coefficient of  $|\geq .30|$ , was stipulated as a requirement to support a hypothesis. Thus, hypothesis testing will adhere to that standard.

*Table 2. Descriptive statistics of all variables*

MMPI-A-RF Scale	<i>M</i>	<i>SD</i>
EID - Emotional/Internalizing Dysfunction	58.62	14.92
THD - Thought Dysfunction	53.82	14.02
BXD - Behavioral/Externalizing Dysfunction	53.32	13.68
RCd - Demoralization	59.50	15.18
RC1 - Somatic Complaints	55.67	14.20
RC2 - Low Positive Emotions	53.45	11.88
RC3 - Cynicism	48.17	10.76
RC4 - Antisocial Behavior	55.24	13.20
RC6 - Ideas of Persecution	53.81	13.28
RC7 - Dysfunctional Negative Emotions	51.26	12.36
RC8 - Aberrant Experiences	53.42	13.29
RC9 - Hypomanic Activation	49.06	12.29
MLS - Malaise	58.34	13.79
GIC - Gastrointestinal Complaints	55.32	14.56
HPC - Head Pain Complaints	53.53	11.81
NUC - Neurological Complaints	52.83	12.09
COG - Cognitive Complaints	61.47	14.30
HLP - Helplessness/Hopelessness	55.64	15.40
SFD - Self-Doubt	57.10	12.80
NFC - Inefficacy	54.87	12.68
OCS - Obsessions/Compulsions	53.24	14.45
STW - Stress/Worry	56.60	13.01
AXY - Anxiety	56.80	14.89
ANP - Anger Proneness	51.48	12.33
BRF - Behavior-Restricting Fears	52.35	10.26
SPF - Specific Fears	46.74	7.66

NSA - Negative School Attitudes	55.42	12.62
ASA - Antisocial Attitudes	50.18	11.60
CNP - Conduct Problems	55.23	12.86
SUB - Substance Abuse	53.76	13.49
NPI - Negative Peer Influence	52.21	12.36
AGG - Aggression	49.77	13.24
FML - Family Problems	52.57	11.67
IPP - Interpersonal Passivity	50.63	11.56
SAV - Social Avoidance	52.18	13.92
SHY – Shyness	48.94	12.31
DSF – Disaffiliativeness	48.99	10.33
AGGR-r - Aggressiveness	50.93	14.70
PSYC-r - Psychoticism	54.02	13.92
DISC-r - Disconstraint	53.38	14.38
NEGE-r - Negative Emotionality/Neuroticism	58.68	15.07
INTR-r - Introversion/Low Positive Emotionality	53.05	14.00
Parenting Style Variable	<i>M</i>	<i>SD</i>
PRPBI Acceptance vs. Rejection (AC)	4.73	2.58
PRPBI Firm vs. Lax Control (FC)	-2.48	2.70
PRPBI Psychological Control (PC)	8.35	1.81
PCS Psychological Control (PCS PC)	10.84	2.20
PCS Behavioral Control (BC)	13.20	2.11

*Table 3. Hypotheses Correlations*

Parenting Style Measures	PRPBI			PCS	
	AC	FC	PC	BC	PCS PC
EID - Emotional/Internalizing Dysfunction	.111	-	-.088	-	.031
RCd - Demoralization	.105	-	-.097	-	.031
SFD - Self-Doubt	.079	-	-.088	-	.089
AXY - Anxiety	-	-	.039	-	.083
NEGE-r - Negative Emotionality/Neuroticism	.043	-.057	-	.207	-
BXD - Behavioral/Externalizing Dysfunction	-.014	-.011	.148	-.233	.032
CNP - Conduct Problems	-	.012	.121	-.299	.049
SUB - Substance Abuse	-.070	.063	-	-.275	-

*Note.* See Table 2 for a full list of variables.

None of the hypothesized correlations reached the effect size criterion of  $|\text{.30}|$ . A number of findings were in the predicted direction and approaching the moderate effect size, particularly with regard to the Barber Behavioral Control scale; implications will be discussed below in the context of the exploratory findings.

## Exploratory Analyses

Exploratory correlational analyses were conducted between all 42 substantive MMPI-A-RF scales and the five parenting scales. We have considered correlations potentially meaningful for which the effect size is at least small, represented by a correlation coefficient of  $|.10|$ , and for which the 95% confidence interval does not cross zero. Table 4 presents all correlations which met these two criteria.

### Acceptance vs. Rejection

There were no correlations with the AC scale which rose to the level of significance for exploratory analysis.

### Behavioral Control

First, four correlations that met these criteria are associated with our hypotheses, specifically with the BC scale. All four were consistent with our predictions. These correlations include externalizing dysfunction (BXD;  $r = -.233$ ,  $[-.370, -.086]$ ), conduct problems (CNP;  $r = -.299$ ,  $[-.429, -.156]$ ), and substance abuse (SUB;  $r = -.275$ ,  $[-.408, -.131]$ ) in the negative direction, as well as neuroticism (NEGE-r;  $r = .207$ ;  $[.059, .346]$ ) in the positive direction. We found additional unexpected correlations with the BC scale as well. The BC scale negatively correlated with antisocial behavior (RC4;  $r = -.320$ ,  $[-.448, -.178]$ ) at a medium effect size. This was the strongest correlation across the data. Additionally, the BC scale was negatively correlated with negative school attitudes (NSA;  $r = -.199$ ,  $[-.338, -.050]$ ), negative peer influence

Table 4. Exploratory Correlations

MMPI-A-RF Scale	Pearson $r$	CI Lower	CI Upper
Behavioral Control: BC			
<i>Somatic/Cognitive</i>			
NUC - Neurological Complaints	0.216	0.069	0.354
<i>Emotional/Internalizing</i>			
NFC - Inefficacy	0.234	0.087	0.371

RC2 - Low Positive Emotions	0.158	0.008	0.300
INTR-r - Introversion/Low Positive Emotionality	0.199	0.051	0.339
RC7 - Dysfunctional Negative Emotions	0.151	0.001	0.294
OCS - Obsessions/Compulsions	0.150	0.001	0.293
STW - Stress/Worry	0.185	0.036	0.325
AXY - Anxiety	0.207	0.059	0.346
NEGE-r - Negative Emotionality/Neuroticism	0.207	0.059	0.346
<i>Behavioral/Externalizing</i>			
BXD - Behavioral/Externalizing Dysfunction	-0.233	-0.370	-0.086
RC4 - Antisocial Behavior	-0.320	-0.448	-0.178
NSA - Negative School Attitudes	-0.199	-0.338	-0.050
CNP - Conduct Problems	-0.299	-0.429	-0.156
SUB - Substance Abuse	-0.275	-0.408	-0.131
NPI - Negative Peer Influence	-0.212	-0.350	-0.064
DISC-r - Disconstraint	-0.299	-0.429	-0.156
<i>Interpersonal Functioning</i>			
SAV - Social Avoidance	0.242	0.096	0.378
Psychological Control: PRPBI PC			
<i>Emotional/Internalizing</i>			
RC2 - Low Positive Emotions	-0.181	-0.322	-0.032
<i>Behavioral/Externalizing</i>			
RC4 - Antisocial Behavior	0.160	0.011	0.302
DISC-r - Disconstraint	0.167	0.017	0.309
SUB - Substance Abuse	0.215	0.067	0.353
<i>Interpersonal Functioning</i>			
SAV - Social Avoidance	-0.168	-0.310	-0.019
Psychological Control: PCS PC			
<i>Behavioral/Externalizing</i>			
RC9 - Hypomanic Activation	-0.150	-0.293	-0.001

(NPI;  $r = -.212, [-.350, -.064]$ , and disconstraint (DISC-r;  $r = -.299, [-.429, -.156]$ ). Given that all four of these scales fall into the externalizing domain, they are consistent with our *a priori* hypotheses predicting a negative correlation with the externalizing domain scale and two externalizing specific problem scales. Although our hypotheses predicted a positive correlation only with NEGE-r, positive correlations occurred with additional scales in the internalizing domain. These include low positive emotions (RC2;  $r = .158, [.008, .300]$ ), dysfunctional negative emotions (RC7;  $r = .151, [.001, .294]$ ), inefficacy (NFC;  $r = .234, [.087, .371]$ ), introversion (INTR;  $r = .199, [.051, .339]$ ), obsessions/compulsions (OCS;  $r = .150, [.001,$



.293]), stress/worry (STW;  $r = .185$ , [.036, .325]), and anxiety (AXY;  $r = .207$ , [.059, .346]). Additionally, positive correlations were found with neurological complaints (NUC;  $r = .216$ , [.069, .354]) and social avoidance (SAV;  $r = .242$ , [.096, .378]).

### **Psychological Control**

In the area of psychological control, the PCS PC scale correlated negatively with hypomanic activation (RC9;  $r = -.150$ , [-.293, -.001]). The PRPBI PC scale correlated negatively with low positive emotions (RC2;  $r = -.181$ , [-.322, -.032]) and social avoidance (SAV;  $r = -.168$ , [-.310, -.019]), while correlating positively with antisocial behavior (RC4;  $r = .160$ , [.011, .302]), substance abuse (SUB;  $r = .215$ ; [.067, .353]), and disinhibition (DISC-r;  $r = .167$ , [.017, .309]).

## **DISCUSSION**

Although none of the formal hypotheses were supported by the established effect size, exploratory analyses revealed interesting trends. Behavioral control was negatively associated with symptoms in the externalizing domain, including antisocial behavior, negative school attitudes, conduct problems, substance use, negative peer influence, and disconstraint. Behavioral control was also positively associated with scales in the internalizing domain, including feelings of inefficacy, low positive emotions, introversion, dysfunctional negative emotions, obsessions/compulsions, stress/worry, anxiety, and neuroticism. Additionally, psychological control showed positive correlations with some externalizing behaviors, including antisocial behavior, substance use, and disconstraint, while also showing negative correlations with social avoidance and low positive emotions.

The results from each of these parenting dimensions offer insight into the potential relationship between parenting style and adolescent symptomatology, although the correlational nature of this study cannot establish a directional effect. Behavioral control, particularly parental monitoring and consistency, reduces externalizing symptoms by limiting the opportunities to engage in such behaviors without consequence (Coughlin and Vuchinich, 1966; Hoeve et al., 2009). For example, if an adolescent is given an enforced curfew, the likelihood of their engaging in delinquent behavior would naturally decrease, although this understanding of the relationship requires that such a parental rule is not only established but enforced. However, strict behavioral control can also create an environment of fear in a family, especially when it is not coupled with parental warmth and acceptance (Deater-Deckard et al., 2006; German et al., 2013). The data suggest that, perhaps as the result of creating such an environment, adolescents may develop stronger internalized emotional reactions to their distress, with perceived conflict or a fear of not meeting expectations leading to feelings of anxiety and depression (Pinquart, 2017).

For parents whose goal is to reduce their child's maladaptive behaviors while also minimizing their child's emotional distress, these data suggest that a balance must be carefully struck. Indeed, this is consistent with previous research on the developmental effects of rule enforcement (Hoeve et al., 2009).

The statistically significant results regarding psychological control did not align so clearly with existing research. Although there were positive correlations between psychological control and some externalizing behaviors (Hoeve et al., 2009; Barber, 1996), there were also negative correlations with scales measuring introversion and social avoidance. Only one prior study, Egbert et al. (2015), saw similar results, finding a positive relationship between children's extraversion and parental psychological control. This relationship may be a result of high levels of social dominance in the children's personalities, manifesting in assessment results as extraversion and challenging parental authority. Moreover, extroverted adolescents likely spend more time with peers, out of the direct supervision of their parents. In both scenarios, parents may become frustrated and overreactive, resorting to psychological control (Egbert et al., 2015).

Contrary to the overwhelming previous body of research (e.g., Ayoub et al., 2018; Donaldson et al., 2016; Finkenauer et al., 2005; Garber et al., 1997), these data did not exhibit significant correlations between adolescent psychopathology/personality and parental warmth and responsiveness. However, when considered alongside the research by Zubizarreta et al. (2019), the results from this study may suggest that that parental warmth should be evaluated as a moderating variable in predictions of adolescent symptomology, particularly in relation to the variable of behavioral control. A categorical approach to parenting style would be supported if the interaction between warmth and behavioral control has more predictive power than either dimension independently, and future research may utilize a mediation and/or moderation analysis

to explore this further. Additional research should seek to understand the existence of an independent relationship between warmth and symptomology.

This study had several limitations upon which future research could improve. First, given the nature of the existing databases, parenting style was measured solely by self-reports from a single parent. As a result, the possibility exists of a social desirability bias in the self-report data. The direction of the bias may not be constant for every participant and instead may vary based on that a parent's parenting principles, for example, with some parents' seeking to be perceived as either more or less strict depending on their values. However, given the relative homogeneity of the sample size regarding race, socioeconomic status, parental marital status, and parental education level, it would not be surprising to find that parent respondents shared many of the same goals and priorities in their child-rearing, skewing the data in one direction. In a sample of 170 middle-class families of four, Schwarz et al. (1985) found that parents, regardless of gender, rated themselves as more accepting and more firm in their rule enforcement than either their children or their spouse rated them, and indeed cited the avoidance of socially undesirable descriptions as a potential cause.

Additionally, the use of self-reports from one parent prevented the establishment of interrater reliability, which may have counteracted some of the social desirability bias. The same study from Schwarz et al. (1985) found that of the four family members, each parent's rating of him or herself was the least consistent with the aggregate of all four and with the aggregate of the remaining three family members. Nevertheless, their results indicated that the most reliable method of measuring parenting style would be to aggregate as many raters as possible. Unfortunately, the databases used for this study did not include measures of parenting style from multiple raters. More research is necessary to determine how many raters would need to be

aggregated to create sufficient reliability, as well as the relations that could serve as reliable raters for families of various structures, such as those without a married heterosexual couple or those without two children.

These databases also do not include the gender of the responding parent. Existing research suggests that the gender of a parent can be a moderating variable in the correlations between parenting style and child behavior (Akhter et al., 2011). However, this research only extends to cohabitating heterosexual couples. Future research should aim to account for the range of potential parenting structures in terms of gender identity combinations.

As a further limitation, the MMPI-A-RF was not administered to each adolescent participant at the same time in relation to their treatment. Because the MMPI-A-RF administration was completed as part of a clinical assessment rather than as part of the research study, the scheduling of the clinical assessment depended on the family's need for testing and their financial ability to compensate the private practice for services, as well as the child's willingness to complete the assessment.

Lastly, exploratory analyses were underpowered for the chosen effect size cut-off, although this was intentional for the sake of balancing the risk of a Type I error with the purpose of an exploratory analysis. This study examined correlations between variables produced by different reporters (i.e., the adolescent and the parent), which likely contributed to lower effect sizes than that found in studies correlating two self-report variables. Therefore, future studies should aim for adequate power to detect small effect sizes.

The results of this analysis have important implications for understanding factors in adolescent personality development and premorbid indicators of adolescent psychopathology. Unsurprisingly, parenting best practices are not so well-defined as to provide a clear and obvious

path toward raising a happy and healthy adolescent. Regarding behavioral control, this study suggests that parents must balance the risk of externalizing behaviors with the risk of emotional distress. Future research should explore the effects of behavioral control and consistency in discipline, particularly looking at potential variables that can moderate the negative effects of strict behavioral control. These potential variables likely extend past the other dimensions of parenting style into aspects of family diversity such as family structure and parental involvement. A substantially diverse sample could provide insight into potential confounding variables and environmental factors.

## REFERENCES

- Adalbjarnardottir, S., & Hafsteinsson, L. G. (2001). Adolescents' Perceived Parenting Styles and Their Substance Use: Concurrent and Longitudinal Analyses. *Journal of Research on Adolescence*, *11*(4), 401–423. <https://doi.org/10.1111/1532-7795.00018>
- Akhter, N., Hanif, R., Tariq, N., & Atta, M. (2011). Parenting styles as predictors of externalizing and internalizing behavior problems among children. *Pakistan Journal of Psychological Research*, *26*(1), 23–41.
- Archer, R. P., Handel, R. W., Ben-Porath, Y. S., & Tellegen, A. (2016). *MMPI-A-RF (Minnesota Multiphasic Personality Inventory-Adolescent-Restructured Form) Administration, Scoring, Interpretation, and Technical Manual*. Minneapolis: University of Minnesota Press.
- Aunola, K., & Nurmi, J.-E. (2005). The role of parenting styles in children's problem behavior. *Child Development*, *76*(6), 1144–1159. <https://doi.org/10.1111/j.1467-8624.2005.00840.x-i1>
- Ayoub, M., Briley, D. A., Grotzinger, A., Patterson, M. W., Engelhardt, L. E., Tackett, J. L., Harden, K. P., & Tucker-Drob, E. M. (2019). Genetic and Environmental Associations Between Child Personality and Parenting. *Social Psychological and Personality Science*, *10*(6), 711–721. <https://doi.org/10.1177/1948550618784890>
- Barber, B. K. (1996). Parental Psychological Control: Revisiting a Neglected Construct. *Child Development*, *67*(6), 3296–3319. <https://doi.org/10.2307/1131780>
- Barber, B. K. (2002). Reintroducing parental psychological control. In *Intrusive parenting: How psychological control affects children and adolescents* (pp. 3–13). American Psychological Association. <https://doi.org/10.1037/10422-001>
- Barber, B. K., Olsen, J. E., & Shagle, S. C. (1994). Associations between parental psychological and behavioral control and youth internalized and externalized behaviors. *Child Development*, *65*(4), 1120–1136. <https://doi.org/10.2307/1131309>

- Barber, B. K., Stolz, H. E., Olsen, J. A., Collins, W. A., & Burchinal, M. (2005). Parental Support, Psychological Control, and Behavioral Control: Assessing Relevance across Time, Culture, and Method. *Monographs of the Society for Research in Child Development, 70*(4), i–147.
- Baumrind, D. (1966). Effects of Authoritative Parental Control on Child Behavior. *Child Development, 37*(4), 887–907. <https://doi.org/10.2307/1126611>
- Baumrind, D. (1991). The Influence of Parenting Style on Adolescent Competence and Substance Use. *The Journal of Early Adolescence, 11*(1), 56–95. <https://doi.org/10.1177/02724316911111004>
- Beck, A. T., Steer, R. A., & Brown, G. K. (1996). Manual for the Beck Depression Inventory-II. San Antonio, TX: Psychological Corporation.
- Benjamini, Y., and Y. Hochberg. 1995. Controlling the false discovery rate: a practical and powerful approach to multiple testing. *Journal of the Royal Statistical Society B 57*: 289-300.
- Bronte-Tinkew, J., Moore, K. A., & Carrano, J. (2006). The Father-Child Relationship, Parenting Styles, and Adolescent Risk Behaviors in Intact Families. *Journal of Family Issues, 27*(6), 850–881. <https://doi.org/10.1177/0192513X05285296>
- Buchner, A., Faul, F., & Erdfelder, E. (1998). A priori, post-hoc, and compromise power analyses for MS-DOS (German Version).
- Burke, J. D., Pardini, D. A., & Loeber, R. (2008). Reciprocal Relationships Between Parenting Behavior and Disruptive Psychopathology from Childhood Through Adolescence. *Journal of Abnormal Child Psychology, 36*(5), 679–692. <https://doi.org/10.1007/s10802-008-9219-7>
- Coughlin, C., & Vuchinich, S. (1996). Family Experience in Preadolescence and the Development of Male Delinquency. *Journal of Marriage and Family, 58*(2), 491–501. <https://doi.org/10.2307/353512>



- Cohen, J. (1988). *Statistical Power Analysis for the Behavioral Sciences*. Academic Press.
- Deater-Deckard, K., Ivy, L., & Petrill, S. A. (2006). Maternal Warmth Moderates the Link Between Physical Punishment and Child Externalizing Problems: A Parent - Offspring Behavior Genetic Analysis. *Parenting*, 6(1), 59–78. [https://doi.org/10.1207/s15327922par0601\\_3](https://doi.org/10.1207/s15327922par0601_3)
- Donaldson, C. D., Handren, L. M., & Crano, W. D. (2016). The enduring impact of parents' monitoring, warmth, expectancies, and alcohol use on their children's future binge drinking and arrests: A longitudinal analysis. *Prevention Science*, 17(5), 606–614. <https://doi.org/10.1007/s11121-016-0656-1>
- Dornbusch, S. M., Ritter, P. L., Leiderman, P. H., Roberts, D. F., & Fraleigh, M. J. (1987). The Relation of Parenting Style to Adolescent School Performance. *Child Development*, 58(5), 1244–1257. <https://doi.org/10.2307/1130618>
- Egberts, M. R., Prinzie, P., Deković, M., de Haan, A. D., & van den Akker, A. L. (2015). The prospective relationship between child personality and perceived parenting: Mediation by parental sense of competence. *Personality and Individual Differences*, 77, 193–198. <https://doi.org/10.1016/j.paid.2014.12.046>
- Finkenauer, C., Engels, R. C. M. E., & Baumeister, R. F. (2005). Parenting behaviour and adolescent behavioural and emotional problems: The role of self-control. *International Journal of Behavioral Development*, 29(1), 58–69. <https://doi.org/10.1080/01650250444000333>
- Fung, J., & Lau, A. (2012). Tough Love or Hostile Domination? Psychological Control and Relational Induction in Cultural Context. *Journal of Family Psychology : JFP : Journal of the Division of Family Psychology of the American Psychological Association (Division 43)*, 26. <https://doi.org/10.1037/a0030457>

- Gadeyne, E., Ghesquière, P., & Onghena, P. (2004). Longitudinal Relations Between Parenting and Child Adjustment in Young Children. *Journal of Clinical Child and Adolescent Psychology*, 33(2), 347–358. [https://doi.org/10.1207/s15374424jccp3302\\_16](https://doi.org/10.1207/s15374424jccp3302_16)
- Garber, J., Robinson, N. S., & Valentiner, D. (1997). The relation between parenting and adolescent depression: Self-worth as a mediator. *Journal of Adolescent Research*, 12(1), 12–33. <https://doi.org/10.1177/0743554897121003>
- Germán, M., Gonzales, N. A., Bonds McClain, D., Dumka, L., & Millsap, R. (2013). Maternal Warmth Moderates the Link between Harsh Discipline and Later Externalizing Behaviors for Mexican American Adolescents. *Parenting*, 13(3), 169–177. <https://doi.org/10.1080/15295192.2013.756353>
- Gfroerer, K. P., Kern, R. M., Curlette, W. L., White, J., & Jonyniene, J. (2011). Parenting style and personality: Perceptions of mothers, fathers, and adolescents. *The Journal of Individual Psychology*, 67(1), 57–73.
- Greening, L., Stoppelbein, L., & Luebbe, A. (2010). The Moderating Effects of Parenting Styles on African-American and Caucasian Children’s Suicidal Behaviors. *Journal of Youth and Adolescence*, 39(4), 357–369. <https://doi.org/10.1007/s10964-009-9459-z>
- Handel, R. W. (2016b). An Introduction to the Minnesota Multiphasic Personality Inventory-Adolescent-Restructured Form (MMPI-A-RF). *Journal of Clinical Psychology in Medical Settings*, 23(4), 361–373. <https://doi.org/10.1007/s10880-016-9475-6>
- Harris, J. R. (2011). *The Nurture Assumption: Why Children Turn Out the Way They Do*. Simon and Schuster.

- Hoeve, M., Dubas, J. S., Eichelsheim, V. I., van der Laan, P. H., Smeenk, W., & Gerris, J. R. M. (2009). The relationship between parenting and delinquency: A meta-analysis. *Journal of Abnormal Child Psychology*, 37(6), 749–775. <https://doi.org/10.1007/s10802-009-9310-8>
- Kaufmann, D., Gesten, E., Lucia, R. C. S., Salcedo, O., Rendina-Gobioff, G., & Gadd, R. (2000). The Relationship Between Parenting Style and Children’s Adjustment: The Parents’ Perspective. *Journal of Child and Family Studies*, 9(2), 231–245. <https://doi.org/10.1023/A:1009475122883>
- Lee, S. M., Daniels, M. H., & Kissinger, D. B. (2006). Parental Influences on Adolescent Adjustment: Parenting Styles Versus Parenting Practices. *The Family Journal*, 14(3), 253–259. <https://doi.org/10.1177/1066480706287654>
- Locke, L. M., & Prinz, R. J. (2002). Measurement of parental discipline and nurturance. *Clinical Psychology Review*, 22(6), 895–929. [https://doi.org/10.1016/s0272-7358\(02\)00133-2](https://doi.org/10.1016/s0272-7358(02)00133-2)
- Maccoby, E. E., & Martin, J. A. (1983). Socialization in the context of the family: Parent-child interaction. *Handbook of Child Psychology : Formerly Carmichael’s Manual of Child Psychology / Paul H. Mussen, Editor*. <https://agris.fao.org/agris-search/search.do?recordID=US201301452933>
- Martinez, I., & García, F. (2008). Internalization of values and self-esteem among Brazilian teenagers from authoritative, indulgent, authoritarian, and neglectful homes. *Adolescence*, 43, 13–29.
- McKinney, C., Milone, M. C., & Renk, K. (2011). Parenting and Late Adolescent Emotional Adjustment: Mediating Effects of Discipline and Gender. *Child Psychiatry & Human Development*, 42(4), 463–481. <https://doi.org/10.1007/s10578-011-0229-2>
- Merlin, C., Okerson, J., & Hess, P. (2013). How Parenting Style Influences Children: A Review of Controlling, Guiding, and Permitting Parenting Styles on Children’s Behavior, Risk- Taking,

Mental Health, and Academic Achievement. *The William & Mary Educational Review*, 2(1).  
<https://scholarworks.wm.edu/wmer/vol2/iss1/14>

Nelson, D. A., & Crick, N. R. (2002). Parental psychological control: Implications for childhood physical and relational aggression. In *Intrusive parenting: How psychological control affects children and adolescents* (pp. 161–189). American Psychological Association.  
<https://doi.org/10.1037/10422-006>

Nguyen, P. V. (2008). Perceptions of Vietnamese Fathers' Acculturation Levels, Parenting Styles, and Mental Health Outcomes in Vietnamese American Adolescent Immigrants. *Social Work*, 53(4), 337–346. <https://doi.org/10.1093/sw/53.4.337>

Pinquart, M. (2017). Associations of Parenting Dimensions and Styles with Internalizing Symptoms in Children and Adolescents: A Meta-Analysis. *Marriage & Family Review*, 53(7), 613–640.  
<https://doi.org/10.1080/01494929.2016.1247761>

Rhee, K. E., Lumeng, J. C., Appugliese, D. P., Kaciroti, N., & Bradley, R. H. (2006). Parenting Styles and Overweight Status in First Grade. *Pediatrics*, 117(6), 2047–2054.  
<https://doi.org/10.1542/peds.2005-2259>

Rinaldi, C. M., & Howe, N. (2012). Mothers' and fathers' parenting styles and associations with toddlers' externalizing, internalizing, and adaptive behaviors. *Early Childhood Research Quarterly*, 27(2), 266–273. <https://doi.org/10.1016/j.ecresq.2011.08.001>

Rohner, R. P., & Khaleque, A. (2003). Reliability and Validity of the Parental Control Scale: A Meta-Analysis of Cross-Cultural and Intracultural Studies. *Journal of Cross-Cultural Psychology*, 34(6), 643–649. <https://doi.org/10.1177/0022022103255650>

- Sahithya, B. R., Manohari, S. M., & Vijaya, R. (2019). Parenting styles and its impact on children—A cross cultural review with a focus on India. *Mental Health, Religion & Culture*, 22(4), 357–383. <https://doi.org/10.1080/13674676.2019.1594178>
- Schaefer, E. S. (1965a). Children's Reports of Parental Behavior: An Inventory. *Child Development*, 36(2), 413–424. <https://doi.org/10.2307/1126465>
- Schaefer, E. S. (1965b). A configurational analysis of children's reports of parent behavior. *Journal of Consulting Psychology*, 29(6), 552–557. <https://doi.org/10.1037/h0022702>
- Schludermann, E., & Schludermann, S. (1970). Replicability of Factors in Children's Report of Parent Behavior (CRPBI). *The Journal of Psychology*, 76(2), 239–249. <https://doi.org/10.1080/00223980.1970.9916845>
- Schludermann, S., & Schludermann, E. (1988). Questionnaire for children and youth (CRPBI-30). *Unpublished manuscript, University of Manitoba, Winnipeg.*
- Schwarz, J. C., Barton-Henry, M. L., & Pruzinsky, T. (1985). Assessing Child-Rearing Behaviors: A Comparison of Ratings Made by Mother, Father, Child, and Sibling on the CRPBI. *Child Development*, 56(2), 462–479. <https://doi.org/10.2307/1129734>
- Steinberg, L., Blatt-Eisengart, I., & Cauffman, E. (2006). Patterns of Competence and Adjustment Among Adolescents from Authoritative, Authoritarian, Indulgent, and Neglectful Homes: A Replication in a Sample of Serious Juvenile Offenders. *Journal of Research on Adolescence*, 16(1), 47–58. <https://doi.org/10.1111/j.1532-7795.2006.00119.x>
- Taylor, R. D., Lopez, E. I., Budescu, M., & McGill, R. K. (2012). Parenting practices and adolescent internalizing and externalizing problems: Moderating effects of socially demanding kin relations. *Journal of Child and Family Studies*, 21, 474–485. <https://doi.org/10.1007/s10826-011-9501-0>

- Trinkner, R., Cohn, E. S., Rebellon, C. J., & Gundy, K. V. (2012). Don't trust anyone over 30: Parental legitimacy as a mediator between parenting style and changes in delinquent behavior over time. *Journal of Adolescence*, *35*(1), 119–132.  
<https://doi.org/10.1016/j.adolescence.2011.05.003>
- Wei, C., & Kendall, P. C. (2014). Child Perceived Parenting Behavior: Childhood Anxiety and Related Symptoms. *Child & Family Behavior Therapy*, *36*(1), 1–18.  
<https://doi.org/10.1080/07317107.2014.878175>
- Weiss, L. H., & Schwarz, J. C. (1996). The relationship between parenting types and older adolescents' personality, academic achievement, adjustment, and substance use. *Child Development*, *67*(5), 2101–2114. <https://doi.org/10.2307/1131612>
- Williams, K. E., Ciarrochi, J., & Heaven, P. C. L. (2012). Inflexible Parents, Inflexible Kids: A 6-Year Longitudinal Study of Parenting Style and the Development of Psychological Flexibility in Adolescents. *Journal of Youth and Adolescence*, *41*(8), 1053–1066.  
<https://doi.org/10.1007/s10964-012-9744-0>
- Wolfradt, U., Hempel, S., & Miles, J. N. V. (2003). Perceived parenting styles, depersonalisation, anxiety and coping behaviour in adolescents. *Personality and Individual Differences*, *34*(3), 521–532. [https://doi.org/10.1016/S0191-8869\(02\)00092-2](https://doi.org/10.1016/S0191-8869(02)00092-2)
- Zubizarreta, A., Calvete, E., & Hankin, B. L. (2019). Punitive parenting style and psychological problems in childhood: The moderating role of warmth and temperament. *Journal of Child and Family Studies*, *28*(1), 233–244. <https://doi.org/10.1007/s10826-018-1258-2>

APPENDIX A: PARENT REPORT OF PARENTING BEHAVIOR INVENTORY (PRPBI)  
(SCHLUDERMANN & SCHLUDERMANN, 1970)

Parents have different ways of trying to raise their children. We would like you to describe some of the things you do while raising your child. Please read each statement on the following pages and mark the answer that most closely describes the way you act toward your child.

1=Not Like

2=Somewhat Like

3=A Lot Like

I am a parent who...

1. ....is not very patient with my child.
2. ....wants to know exactly where my child is and what they are doing.
3. ....will not talk with my child when they displease me.
4. ....feels hurt when my child does not follow my advice.
5. ....is always telling my child how they should behave.
6. ....spends very little time with my child.
7. ....believes in having a lot of rules and sticking with them.
8. ....punishes my child for doing something one day but ignores it the next.
9. ....forgets to help my child when they need it.
10. ....sticks to a rule instead of allowing a lot of exceptions.
11. ....does not pay much attention to my child's misbehavior.
12. ....does not tell my child what time to be at home when they go out.
13. ...wants my child to tell me about it if they do not like the way I treat them.
14. ....keeps a careful check on my child to make sure that they have the right kind of friends.
15. ....becomes very involved in my child's life.
16. ....almost always complains about what my child does.
17. ....always listens to my child's ideas and opinions.
18. ....does not check up to see whether my child has done what I told them to do.
19. ....thinks and talks about my child's misbehavior long after it is over.
20. ....does not share many activities with my child.
21. ...lets my child go any place they please without asking.
22. ...enjoys doing things with my child.
23. ...says that if my child loves me, they would do what I want them to do.
24. ...insists that my child must do exactly as told.
25. ...does not insist my child obeys, if they complain and protest.
26. ...makes their whole life center around their children.
27. ...stops talking to my child until they please me again.
28. ...can be talked into things easily.
29. ...has more rules than my child can remember.
30. ...will talk to my child again and again about anything bad they do.

## APPENDIX B: PSYCHOLOGICAL CONTROL SCALE (BARBER ET AL., 1994)

The following statements describe the behavior of some parents. Thinking about yourself as a parent in relation to the child who is participating in this study, please rate each statement in terms of how well it describes you. Use the following scale:

1 = not like me

2 = a little like me

3 = a lot like me

- \_\_\_\_\_ 1. I am always trying to change how my child feels or thinks about things.
- \_\_\_\_\_ 2. I change the subject whenever my child has something to say.
- \_\_\_\_\_ 3. I often interrupt my child.
- \_\_\_\_\_ 4. I blame my child for other family members' problems.
- \_\_\_\_\_ 5. I bring up past mistakes when I criticize my child.
- \_\_\_\_\_ 6. I am less friendly with my child if she does not see things my way.
- \_\_\_\_\_ 7. I will avoid looking at my child when she has disappointed me.
- \_\_\_\_\_ 8. If my child has hurt my feelings, I stop talking to my child until she pleases me.

The following questions relate to how much you know about your child's activities. Consider the child who participated in this study and rate how well each statement below describes you using the following scale:

1 = don't know

2 = know a little

3 = know a lot

- \_\_\_\_\_ 1. Where my child goes at night
- \_\_\_\_\_ 2. Where my child is most afternoons after school
- \_\_\_\_\_ 3. How my child spends her money
- \_\_\_\_\_ 4. What my child does with her free time
- \_\_\_\_\_ 5. Who my child's friends are

The following questions ask about your experiences with your child. Using the following rating scale, rate how often you behave in a manner as described by the statement. Consider the child who participated in this study.

1 = No, never

2 = Yes, but seldom,

3 = Yes, often

4 = Yes, most of the time.

- \_\_\_\_\_ 1. I worry about what my child is doing after school.
- \_\_\_\_\_ 2. I am afraid that something might happen to my child.
- \_\_\_\_\_ 3. I worry about my child getting into trouble.
- \_\_\_\_\_ 4. I worry about my child doing dangerous things.
- \_\_\_\_\_ 5. I worry about my child making a mistake.
- \_\_\_\_\_ 6. I am afraid when my child does something on her own.
- \_\_\_\_\_ 7. I am an anxious person and therefore my child is not allowed to do as many things as other children.



APPENDIX C: TESTS INCLUDED IN RESEARCH DATA SET (TRAILS CAROLINA)

<b><i>Symptomatology</i></b>	<b><i>Parent Report of Child Factors</i></b>
Achenbach System of Empirically Based Assessment: Youth Self-Report (ASEBA: YSR)  Treatment Outcome Package (TOP) School Refusal Scale (SRAS)  Revised Child Anxiety & Depression Scales (RCADS) Substance Use Questionnaire (SUQ) Childhood Posttraumatic Stress Scale (CPSS)	Achenbach System of Empirically Based Assessment: Child Behavior Checklist (ASEBA: CBCL) Treatment Outcome Package (TOP-P) Revised Child Anxiety & Depression Scales (RCADS-P) Child Avoidance Measure-Parent Report (CAMP)
<b><i>Vulnerability Factors</i></b>	<b><i>Parent Report of Parent &amp; Family Factors</i></b>
Adolescent Attachment Questionnaire (AAQ) Childhood Anxiety Sensitivity Index (CASI-I, CASI-3) Teenage Motivation for Tobacco, Alcohol, and Marijuana Use Questionnaires (TMQ) Prescription Stimulant Expectancy Questionnaire (PSEQ) Emotion Regulation Questionnaire (ERQ) Child Avoidance Measure (CAMS) Child and Adolescent Mindfulness Measure (CAMM) Positive and Negative Affect Scale- Child (PANAS-C) Interpersonal Needs Questionnaire (INQ-15)	BABAS (Changes in Bodily Activity) Fagerstrom Test for Nicotine Dependence (FAGER) Life Stressors and Social Resources Inventory (LISRES) Inventory of Depression and Anxiety Symptoms (IDAS) Anxiety Sensitivity Index-III (ASI-III) Distress Tolerance Questionnaire (DTS) Short Inventory of Problems (SIP) Posttraumatic Diagnostic Scale (PDS) Positive and Negative Affect Scale (PANAS)
<b><i>Family Functioning Factors</i></b>	Assessment of Treatment Satisfaction
Family Adaptability and Cohesion Evaluation Scale (FACES) Child Report of Parent Behavior Index (CRPBI) Parenting Styles (ParentSC)	Family Adaptability and Cohesion Evaluation Scale-Parent Report (FACES-P) Parent Report of Parent Behavior Index (PRPBI) Parenting Styles (ParentSC)