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Multi-informant Agreement on Emotional-Behavioral Symptoms in
Families with and without Children with Dysregulation

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Abstract

At least 20% of children and adolescents living in the United States struggle with emotional-behavioral problems. For clinicians to accurately diagnose and treat these problems, it is important to collect information from multiple informants to obtain the most complete understanding of a child's symptoms, life circumstances, and relationships. The present study examined the extent to which parents and children agreed in their ratings on six questionnaires measuring different types of child emotional-behavioral problems, including emotion dysregulation, internalizing and externalizing symptoms, executive functioning, and callous and unemotional traits. Participants included 87 dyads (78% mothers and their children, 57% boys). Based on a latent class analysis of child behavioral symptoms on the Child Behavior Checklist (CBCL), parent-child dyads were classified as: non-clinical controls, psychiatric controls, or dysregulated. Pearson's correlations of parent and child ratings were computed and differences in the strength of the correlations across the three groups were tested. Analyses revealed significant differences between control and psychiatric control groups on the Impulsivity and Narcissism subscales of the Antisocial Process Screening Device (APSD), between the psychiatric control and dysregulation profile groups on the Shift and Monitor subscales of the Behavior Rating Inventory of Executive Function (BRIEF), and between control and dysregulation profile groups on the Monitor scale of the BRIEF, as well as the Aggression and Frustration subscales of the Early Adolescent Temperament Questionnaire (APSD). Discrepancies for child psychopathology, including emotion dysregulation, give insight into individual differences in the informants' perception, understanding, and report of emotional-behavioral symptoms.

Introduction

In the United States, between 14-20 percent of children experience clinical levels of emotional-behavioral health problems (Wingenfield, 2002). It is estimated that 1.5 million preschool and school-age children deal with emotional, developmental and/or behavioral problems that can last throughout childhood and into adulthood, if not treated properly (Blanchard, Gurka, & Blackman, 2006). Emotions are broadly defined as short-lived, motivating feelings that happen as an individual interacts with his or her environment (Barett & Campos, 1987). Learning to regulate these complex states is one of the most important tasks of childhood (Calkins & Hill, 2007). For clinicians, understanding this part of child development can inform treatment. Without the appropriate knowledge of these emotional-behavioral problems, they can develop into more serious issues, such as academic failure or drug and alcohol abuse later in life (Blanchard, Gurka & Backman, 2006). The high rate of emotional-behavioral problems in children as young as preschool calls for mental health professionals to appropriately assess and treat symptomology in a variety of contexts, and intervene when necessary.

The two main methods to assess and identify emotional-behavioral disorders is to use a categorical classification system or an empirically-based dimensional system. The most well-known categorical classification system is the Diagnostic and Statistical Manual of Mental Disorders (DSM), which relies on a categorical system, with diagnoses being based on the presence or absence of certain sets of criteria (American Psychiatric Association, 2013). On the other hand, dimensional scales measure behaviors and symptoms continuously and uses statistical procedures, such as factor analyses, to derive empirically-based symptom profiles (McConaughy & Ritter, 1995). Additionally, dimensional approaches capture more variance

related to symptom severity and frequency than a categorical rating of symptoms as being either present or absent.

Rating Scales

Empirically-based, dimensional approaches to measuring emotional-behavioral symptoms often use rating scales based on individual informant's report. For example, Child Behavior Checklist (CBCL) and the Youth Self Report (YSR) allow clinicians and researchers to use cut off scores and compare the severity of a child's symptoms to a nationally normative sample. With this, they can more fully understand the presence and severity of certain emotions and behavior (McConaughy & Ritter, 1995). Throughout the past several decades, the percentage of school psychologists using rating scales has risen to 75%, indicating that this method is gaining popularity (Sharpio and Heick, 2004). Another advantage of many rating scales is that they allow for the comparison of ratings from different informants, which provides more complete information about a child's emotional-behavioral symptoms across situations and settings. The importance of using multiple informants in child and adolescent psychiatry and psychology was first highlighted by Achenbach and colleagues in 1987 (Achenbach, McConaughy & Howell, 1987).

Multi-Informant Agreement and Disagreement

Multi-informant agreement (also known as concordance or inter-rater agreement) is the degree that two independent raters agree on the assessment of behavior. Childhood emotional-behavioral concerns are determined by complex biological, psychological, and socio-cultural factors. This is complicated by the fact that children's symptoms may vary in different situations, such as at school, with friends, and at home. To capture these variations of multi-informant assessment from a variety of informants such as teacher, parent, and child, is important to

understanding a child's symptoms and formulating a treatment plan that is well-suited for the child.

Multi-informant agreement has been studied specifically in relation to range of psychiatric disorders including anxiety (Woltering et al., 2015), depression (Chilcoat & Breslau, 1997), and Attention Deficit Hyperactive Disorder (ADHD) (Qian et al., 2010). However, few studies have examined patterns of multi-informant agreement among families of a child with emotional dysregulation. "Dysregulation" refers to children who have broad self-regulatory impairment. It is commonly characterized by concurrent elevations in internalizing and externalizing symptoms, specifically in the Anxious/Depressed (AD), Attentional Problems (AP) and Aggressive Behavior (AB) syndrome subscales of the CBCL (Geeraerts et al., 2015). Improved understanding of the parent-child agreement among families of children with dysregulation may aid clinicians working with this population in their interpretation of multi-informant assessments by providing additional insight into parent-child relationships (Jensen et al., 1999; Kashini et al., 1985; Lahey et al., 1996).

One of the most common and challenging elements of multi-informant assessment is understanding and interpreting informant discrepancies. A meta-analysis found that over 76% of parent-child-therapist triads disagreed when judging child emotional-behavioral symptomology (Hawley & Weisz, 2003). Although used in a variety of psychological assessments, there is often inconsistency and confusion related to how to interpret and handle these discrepancies. This is problematic, because these measures are influential in the assessment, diagnosis and treatment of child emotional-behavioral problems. Both agreement and disagreement between parent and child reports can provide meaningful information about each informant's perception of the child's symptomatology. If there is a high degree of agreement across informants, this may

suggest a strong relationship between the parent and child, increased involvement of the parent, or good emotional-behavioral expression of the child (Collins & Russell, 1991). Alternatively, if there a high degree of discrepancy between parent-child reports, this could reflect informant bias, contribute to conflict and stress in the family, or indicate a lack of understanding about the child's symptoms (De Los Reyes & Kazdin, 2005). Furthermore, disagreements could hinder the ability of families and teachers to identify the presenting problems and participate in treatment. It becomes critical to study multi-informant agreement to understand the concordance and discrepancies across informants when assessing and diagnosing children with emotional-behavioral problems.

When informants disagree, clinicians need to use their discretion to make decisions; however, there are few empirically-based guidelines to do so. (Martel, Markon, & Smith, 2016). Across cultures and psychiatric disorders, considerable discrepancies in perceptions of child behavioral symptoms among informants have been documented (Achenbach, McConaughy, & Howell, 1987; Begovac et al., 2004; Grigorenko et al., 2010; Martel, Markon, & Smith, 2016). In a seminal meta-analysis, Achenbach and colleagues (1987) found that the highest amount of agreement between informants on the CBCL and the YSR, would be between those most closely related (e.g., parents and children versus teachers and children). Since then, there has been additional research conducted to explore other factors associated with discrepancies between parent-child reports of emotional-behavioral problems, including parental psychopathology, such as depression (Chilcoat & Breslau, 1997), age or sex of the child (Achenbach et al., 1987), and type of problem assessed (Duhig, Renk, Epstein, & Phares, 2000).

The influence of maternal depression on ratings “Hypothesis. It explains that when a parent is depressed, he or she is more likely to rate their child as having more behavioral issues

such as Conduct Disorder, Attention Deficit Hyperactivity Disorder, and Depression, which (if considered in isolation) could skew a clinician's conceptualization of a patient (Chilcoat & Breslau, 1997; Müller, J. M., Achtergarde, S., & Furniss, T., 2011). A study looked at the effects of maternal depression and the accuracy of reports on children ages 12-13 (Fergusson et al., 1993). It was found that depressed mothers more often over-reported behavior problems. This is particularly important when studying multi-informant agreement because parents typically are an important source of information about a child's behavior.

Furthermore, the age of the child may influence responses about his or her emotional-behavioral symptoms. Evidence shows that parent-child agreement increases from grades fourth to eighth (Viehaus & Lohaus, 2008). This suggests that as children age, they can better understand and articulate their own emotions and behaviors which are picked up by the parents as well. By contrast, however, Achenbach's meta-analysis reported that informants' ratings were in more agreement for younger children (6-11 years) than for adolescents (12-19 years old) (Achenbach et al., 1987). An interpretation of this result is that younger children's behavior is more easily observable because they are more likely to be constrained to situations where they would express that behavior. For example, young children have less autonomy than older adolescents and they are often accompanied by parents, teachers, and other caregivers or adults for many day-to-day activities. Another study found that parent-child agreement increased with the age of the child, but only for boys (Edelbrock et al., 1986; Rey, Schrader, Morris-Yates, 1992). On the other hand, many studies have not found age differences, so the literature remains inconclusive (Achenbach, 2006; Vierhaus, & Lohaus, 2008).

The role of sex in examining multi-informant agreement has also been investigated, yielding inconsistent results. One study that examined specific broadband subscales of child

symptomatology including internalizing and externalizing problems, found that there was greater parent-child agreement for girls than boys (Kolko & Kazdin, 1993). Looking at interparental agreement, it was found in a meta-analysis containing 60 studies that there was greater mother-father agreement in studies including just one sex of children compared to studies that included both (Duhig et al., 2000).

Next, the nature of the presenting problem (e.g., internalizing or externalizing) may influence the level of agreement across informants. A study of inter-parental agreement, found higher agreement for ratings of child externalizing behavior relative to ratings of internalizing behavior (Duhig, Renk, Epstein, & Phares, 2000). Internalizing problems include less overt or obvious symptoms, whereas externalizing problems include behaviors such as rule-breaking and running away, which may be more easily observed by parents (Achenbach, McConaughy, & Howell, 1987; Grigorenko et al., 2010; Rey, Scradler, Morris-Yates, 1992). Therefore, it seems reasonable that higher levels of agreement have been found when parents and children are asked about concrete, observable behaviors rather than ones that are more internal experiences (Herjanic & Reich, 1982).

The CBCL and YSR have been used to study multi-informant agreement in a range of child psychiatric conditions. To date, however, little research has examined the degree of multi-informant agreement of children with “dysregulation” (CBCL-DP) in instruments other than the CBCL. To our knowledge, this is the first study to compare multi-informant agreement between parents and children with the dysregulation profile using all six of the following measures: CBCL, YSR, EATQ, BRIEF, APSD, and the Inventory of Callous-Unemotional Traits (ICU). There is also a lack of research and findings for multi-informant agreement on the ICU and the BRIEF, more generally, and a limited amount for the EATQ. It is imperative to study these

instruments from a multi-informant perspective to understand possible causes and interpretations of discrepancies that may inform treatment approaches.

The present study examined multi-informant agreement between parents and children regarding the child's emotional-behavioral problems in families with and without children exhibiting the dysregulation profile (CBCL-DP). By doing this, this study will contribute to the current literature by giving insight to clinicians about how different family members interpret and experience this particularly complex set of symptoms and allow them to understand the perspectives provided by informants in relation to a child's emotional-behavioral symptomatology. It will not only add to the growing literature on measures that have been studied more extensively (CBCL, YSR, APSD) but will give insight into those that are studied less (ICU, BRIEF, and EATQ). This will allow clinicians to better understand how children with CBCL-DP perceive their emotional-behavioral state and the extent to which that perception aligns with their parent's characterization.

The Current Study and Hypotheses

Level of parent-child agreement were examined in measures of temperament, executive functioning, antisocial behavior, and callous and unemotional traits across three groups of children: 1. Control 2. Psychiatric Control (PC), and 3. Dysregulated (CBCL-DP). In each of these groups, parent-child agreement was calculated based on responses on the following instruments: The Child Behavior Checklist (CBCL), the Youth Self-Report (YSR), the Early Adolescent Temperament Questionnaire (EATQ), the Behavior Rating Inventory of Executive Function (BRIEF), the Antisocial Process Screening Device (APSD) and the Inventory of Callous and Unemotional Behavior (ICU).

The hypotheses of the study were:

1. The degree of correlation between parent and child report on the CBCL and YSR, the EATQ, ICU, and APSD will be significantly lower in the CBCL-DP than in the control and PC groups.
2. There will be significantly lower parent-child agreement on the Internalizing subscale than the Externalizing subscale of the CBCL and YSR in all three groups.
3. The degree of correlation between parents and children's report on the BRIEF, a measure of executive functioning, will be significantly lower in CBCL-DP group than in the control and PC groups.

When a child is emotionally dysregulated, they may be less likely to understand their emotional-behavioral symptomology and therefore in less agreement with their parents when it comes to judging those behaviors. So, with the help from previous research, it makes sense that the more psychiatric problems or dysregulated a child is, the less agreement they would have on measures of their symptomology.

Method

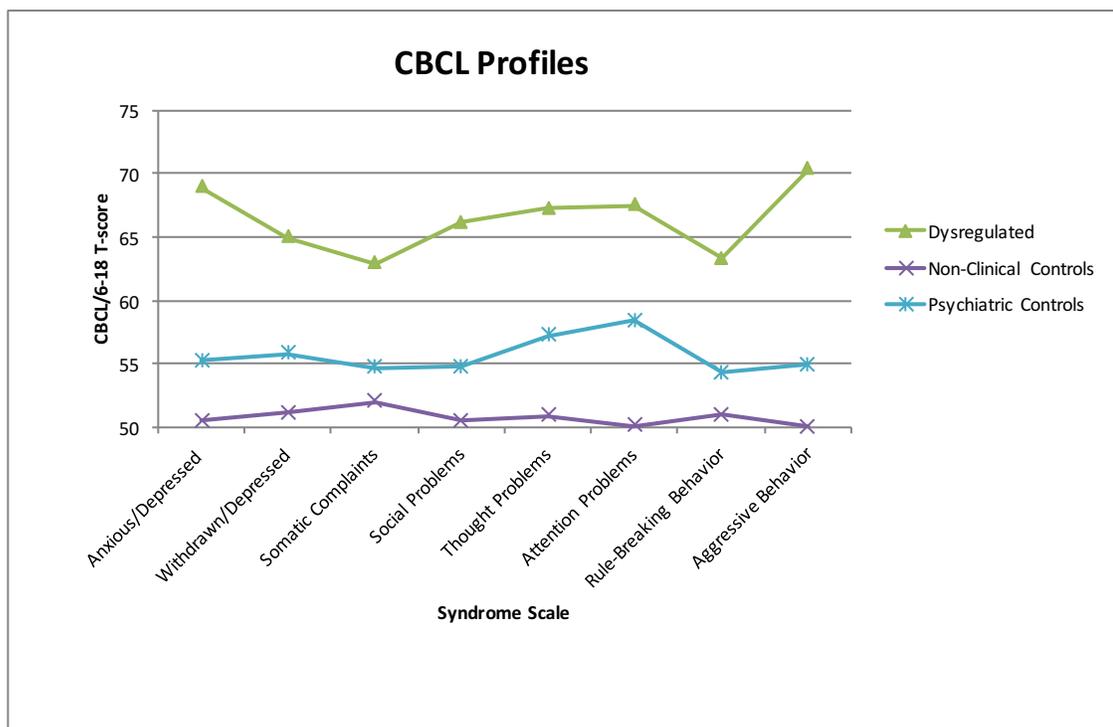
Participants

Data was obtained from a sample of 87 parent-child dyads, consisting of a child or adolescent aged 7-17, one biological parent, and a second parent or sibling. In other words, there were three biologically related individuals participating in the larger study. Families lived in Vermont, New York, and Quebec and were enrolled in a larger study of emotion regulation conducted in the University of Vermont Child Emotion Regulation Laboratory under the direction of Dr. Robert Althoff (Committee of Human Research in Medical Sciences #13-275). Because children were intentionally selected based on the presence of emotion regulation

problems, there were higher rates of emotional-behavioral problems and psychiatric problems than would be expected in the general population. Written informed consent and assent was obtained from all subjects prior to participation.

Groups

Groups for this study were previously determined through latent class analysis (LCA), a way of examining data to create mutually exclusive classes to represent certain symptoms or items within a profile (Goodman, 1974). A seven-class model was used to fit the data and then collapsed to form the following groups:



1. Control: low to no symptoms
2. Psychiatric Control: clinical symptoms not fitting the CBCL-Dysregulation Profile
Elevated levels on other scales
3. Dysregulated: meet full criteria for CBCL-Dysregulation Profile
Elevated levels on: Anxious/Depressed, Attention Problems, Aggressive Behavior

Age

The instruments in the present study are validated for different age ranges. For instance, the YSR is normed for children ages 11-18; the APSD is for children ages of 6-13; the BRIEF for ages 11-18; the EATQ for ages 9-15; and the ICU for 13-18 year olds. Data was excluded pairwise for children who fell outside the age parameters for certain instruments. When there were two children present, dyads were carefully selected to maximize each sample size to ensure that the child who had validated data available for the greatest number of measures was selected. When more than one parent was present, the maternal scores were obtained and the father's scores were eliminated. If the father was the only parental informant, these data were used.

Measures

The following measures were collected via an online database (REDCAP) and filled out electronically on a laptop by both parent and child independently:

Child Behavior Checklist (CBCL) and Youth Self Report (YSR). The CBCL and YSR consist of 113 (CBCL) and 112 (YSR) items, respectively. Items are scored on a three-point scale from 0-2 ("0-not true", "1-somewhat" or "sometimes true", and "2-very true" or "often true") of child's behavior within the past six months (CBCL; YSR; Achenbach, 1991). CBCLs are completed by each of the parents concerning their children and YSRs are completed by the children in the age range of 11-18 years.

Responses to the problem items on the CBCL and YSR generate eight narrow syndrome scales and two overarching broadband scales. These scales were empirically derived through factor analysis of data from 4,994 parent reports of children with clinical problems (Achenbach, 1991). The instruments are normed for age, race/ethnicity, sex, and SES. In the current study, the

Anxious/Depressed (AD), Attention Problems (AP), Aggressive Behavior (AB), syndrome scales and Internalizing (INT), and Externalizing (EXT) broadband scales were included (see Table 1).

Table 1. CBCL/YSR Subscales

YSR/CBCL
Narrow Scales:
Anxious/Depressed- Cries, fears school and doing bad, feels unloved, feels worthless, nervous, fearful, guilty, self-conscious, talks about suicide, worries.
Attention Problems: Acts young, fails to finish tasks, can't concentrate, can't sit still, confused, daydreams, impulsive, poor school, inattentive, stares.
Aggressive Behavior: Argues, mean, demands attention, destroys own things, destroys other's things, misbehaves at school, misbehaves at home, fights, attacks, screams, stubborn, mood changes, sulks, suspicious, teases, temper, threatens.
Broadband Scales:
Internalizing: Anxious/depressed, withdrawn/depressed, somatic complaints.
Externalizing: Rule-breaking behavior and aggressive behavior

Early Adolescent Temperament Questionnaire (EATQ). The EATQ is used in adolescents aged 9-15 to assess dimensions of temperament on 10 temperament subscales and 2 behavior subscales (EATQ; Ellis & Rothbart, 2001; Woltering et al., 2015). The most recent revised version of the instrument (EATQ-R) was used in this study (Capaldi & Rothbard, 1992). The survey consists of both parent and child modules, which contain 62-items that are load onto twelve subscales. The following subscales were included in this study: Activation (ACT), Affiliation (AFF), Aggression (AGG), Attention, (ATT), Depressive (DEP), Fear (FEAR), Frustration (FRUS), Inhibit (INH), Shyness (SHY), and Surgency (SURG) (see Table 2).

Table 2. EATQ Subscales

EATQ
Activation: The capacity to perform an action when there is a strong tendency to avoid it, (i.e. "I have a hard time finishing things on time.").
Affiliation: The desire for warmth and closeness with others, independent of shyness or extraversion, (i.e. "I will do most anything to help someone I care about").
Aggression: Hostile and aggressive actions, including person and object-directed physical violence, direct and indirect verbal aggression, and hostile reactivity, (i.e. "When I am angry, I throw or break things.").
Attention: The capacity to focus attention as well as to shift attention when desired, (i.e. "It is easy for me to really concentrate on homework problems.").

Depressive: Unpleasant affect and lowered mood, loss of enjoyment and interest in activities, (i.e. “My friends seem to enjoy themselves more than I do.”)

Fear: Unpleasant affect to anticipation of distress, (i.e. “I worry about getting in trouble.”).

Frustration: Negative affect related to interruption of ongoing tasks or goal blocking, (i.e. “I get very frustrated when I make a mistake in my school work.”).

Inhibit: The capacity to plan, and to suppress inappropriate responses, (i.e. “When someone tells me to stop doing something, it is easy for me to stop.”).

Shyness: Behavioral inhibition to novelty and challenges, (i.e. “I feel shy with kids of the opposite sex.”).

Surgency: The pleasure derived from activities involving high intensity or novelty, (i.e. “I enjoy going to places where there are big crowds and lots of excitement.”).

Behavior Rating Inventory of Executive Function (BRIEF). The BRIEF is an 86-item questionnaire assessing executive functioning behaviors at home and at school for children between the ages of 5-18 (BRIEF; Gioia, Isquith, Guy, & Kenworthy, 2000). It includes parent and child modules, which have been widely used in research settings (Vriezen & Pigott, 2002; Qian et al., 2010; Slick, Lautzenhiser, Sherman & Eyrl, 2007). The BRIEF is comprised of eight clinical subscales as well as two validity scales. The following subscales were included in the current study: Inhibit (INH), Shift (SHIFT), Emotional Control (EMOCO), Monitor (MON), Working Memory (MEM), Plan/Organize (PLAN), and Organization of Materials (ORGMAT) (see Table 3).

Table 3. BRIEF Subscales

BRIEF

Inhibit: The ability to control impulses and to stop engaging in a behavior.

Shift: The ability to move freely from one activity or situation to another, to tolerate change, or to switch or alternate attention.

Emotional Control: The ability to regulate emotional responses appropriately.

Monitor: The ability to check work and to assess one’s own performance or the ability to keep track of the effect of one’s own behavior on other people.

Working Memory: The ability to hold information when completing a task, when encoding information, or when generating goals/plans in a sequential manner.

Plan/Organize: The ability to anticipate future events, to set goals, to develop steps, to grasp main ideas, to organize and understand the main points in written or verbal presentations.

Organization of Materials: The ability to put order in work, play and storage spaces (i.e. desks, backpacks.)

Antisocial Process Screening Device (APSD). The APSD, formally known as the Psychopathy Screening Device (Hare, 1991), is a 20-item survey assessing antisocial processes and psychopathic behaviors in children ages 6-13 (APSD; Frick & Hare, 2001). Parents and children rate behaviors on a three-point scale ranging from, “1-not at all true”, “2-sometimes true” to “3-definitely true” This survey has been used in the past to study institutionalized adolescents (Vitacco, Rogers & Neumann, 2003) and adolescents with aggressive behaviors (Caputo, Frick & Brodsky, 1999). The three dimensions of behavior that it measures include: Callous/Unemotional traits (CU), Narcissism (NAR), and Impulsivity (IMP). All subscales of this measure were used for the current study (see Table 4).

Table 4. APSD Subscales

APSD

Callous/Unemotional: Concerned about schoolwork, keeps promises, feels bad or guilty, concerned about feelings of others, does not show emotions, keeps the same friends.

Impulsivity: Blames others for mistakes, acts without thinking, gets bored easily, engages in risky activities.

Narcissism: Emotions seem shallow, brags excessively, uses or cons others, teases others, can be charming but seems insincere, becomes angry when corrected, thinks he/she is better than others

Inventory of Callous and Unemotional Traits (ICU). The ICU is a 24-item questionnaire assessing callous and unemotional traits within children ages 13-18 (Frick, 2004). Response are scored on a four-point scale ranging from, “0-not at all true”, “1-somewhat true”, “2-very true”, to “3-definitely true.” Of note, the instrument was developed from items of the CU subscale of the APSD to study at-risk antisocial youth to screen for future aggressive and violent behavior (as reviewed by Frick & Dickens, 2006). The ICU includes three subscales: Callousness (CALL), Uncaring (UNCAR), and Unemotional (UNEM) behaviors. All subscales of this measure were used for the current study (see Table 5).

*Table 5. ICU Subscales***ICU**

Callousness: (i.e. “I do not care who I hurt to get what I want”, “I am concerned about the feelings of others”, “I do not care if I get in trouble”).

Uncaring: (i.e. “I always try my best”, “I work hard on everything I do”, “I apologize to persons I hurt”.)

Unemotional: (i.e. “I express my feelings openly”, “I am very expressive and emotional”, “I do not show my emotions to others”.)

Socioeconomic status

The Hollingshead Index of Socioeconomic Status was used to measure each dyad's socioeconomic status based on parental occupation. The parental participant's occupational code was rated on a 10-point scale; “0” scoring for retired, disabled, dead, uncodeable, or missing, “1” scoring for farm laborers, up to “9” scoring for higher executive/major professionals.

Intelligence quotient (IQ)

The Wechsler Abbreviated Scale of Intelligence was used to measure cognitive abilities for both parents and children. More specifically, the Vocabulary and Matrix Reasoning subtests were used to approximate full scale IQ.

Data analysis

Descriptive statistics for both parents and children were calculated for the following variables: age, dysregulation score, socioeconomic status and intelligence quotient (IQ). These values are presented in Table 6. Next, Pearson correlations were calculated to compute parent-child agreement on each of the measure's subscales for each of the three groups. These data are presented in Table 7. The calculated correlations for each group were then transformed to normally distributed Fischer Z scores and the standard errors of the differences of those Z scores were then calculated. From there, the ratio of the difference to the standard of error was calculated and that ratio was compared to a standard normal distribution. This second set of analyses were to see if the degree of correlation for the three groups were significantly different

from each other (See Table 8). The alphas are ultimately p-values, which tells whether the difference between correlations for each of the two groups being compared were significantly different from one another (P-value less than 0.05 was considered statistically significant in this study). All analyses were performed using SPSS Version 23.

Results

Descriptive Statistics

Participants were 87 parent-child dyads, including 28 controls, 27 PC, and 29 CBCL-DP children. Most mothers, (78%) reported on their children (57% boys) for the overall sample. More specifically, the control group was comprised of 89% mothers and 68% boys. The PC group was 85% mothers and 56% boys. The CBCL-DP group was comprised of 93% mothers and 79% boys. No significant differences were found between the mean ages, socioeconomic status, or parental IQ. Significant differences were found for child IQ ($F=3.87, p=0.03$), with the highest IQ in the control group (117.41, $SD=9.28$), next highest in the PC group (112.52, $SD=13.19$), and lowest in the CBCL-DP group (107.04, $SD=17.03$).

Table 6. Descriptive Statistics of Three Groups

Control	C AGE	P AGE	C SES	P SES	C IQ	P IQ
N	28	28	28	28	27	23
Minimum	7	35	0	0	100	103
Maximum	16	53	90	90	136	129
Mean	11.93	44.32	73.93	73.93	117.41	115.26
Std. Deviation	2.24	4.43	21.32	21.32	9.28	7.34
Psychiatric Control						
N	27	27	26	26	27	26
Minimum	7	32	20	20	70	70
Maximum	16	56	90	90	130	135
Mean	11.19	43.44	66.54	66.54	112.52	112.92
Std. Deviation	2.57	6.66	18.48	18.48	13.19	14.33
Dysregulation Profile						
N	29	29	28	28	25	26
Minimum	7	31	0	0	73	78
Maximum	16	58	90	90	139	130
Mean	11.00	43.28	62.14	62.14	107.04	110.23
Std. Deviation	2.25	6.58	25.40	25.40	17.03	14.09
All						
N	87	87	82	82	81	77
Minimum	7	31	0	0	70	70
Maximum	16	58	90	90	139	135
Mean	11.45	43.66	67.56	67.56	112.27	112.22
Std. Deviation	2.37	5.92	22.28	22.28	13.89	12.74

Note: DYAD DP= DYAD Dysregulation Profile; FAM DP= Overall family Dysregulation Profile; C Gender= Child gender; C AGE= Child age; P AGE= Parent age; C SES= Child socioeconomic status; P SES= Parent socioeconomic status; C IQ= Child intelligence quotient; P IQ= Parent intelligence quotient.

Pearson's R Correlations for Dyads (Parent-Child responses)

Pearson's correlations were conducted to measure the agreement between child and parent reports of child emotional-behavioral symptoms (Achenbach et al., 1987). In general, parent and child ratings were positively correlated with significant correlations within each group emerging (see Table 7 for all results):

Table 7. Pearson's R Correlations of Parent-Child Responses: Comparing Within Groups

	Control (1)	Psychiatric Control (2)	Dysregulated Profile (3)
YSR/CBCL			
N	25	23	20
AD	0.12	0.09	0.06
AP	0.47*	0.26	0.38
AB	0.72**	0.36	0.67**
INT	0.34	0.45*	0.41
EXT	0.64**	0.51*	0.71**
APSD			
N	23	20	20
CU	0.26	0.25	-0.25
IM	0.59**	-0.07	0.26
NAR	-0.07	0.53*	0.26
BRIEF			
N	23	23	20
INH	0.07	0.46*	0.51*
SHIFT	0.38	-0.14	0.59**
EMOCO	0.10	0.14	0.48*
MON	0.14	0.24	0.76**
MEM	0.35	0.25	0.23
PLAN	0.31	0.06	0.31
ORGMAT	0.49*	0.38	0.40
EATQ			
N	17	13	17
ACT	0.50*	-0.19	0.27
AFF	0.34	-0.06	0.48
AGG	-0.10	0.58*	0.65**
ATT	-0.02	0.47	0.21
DEP	-0.00	0.16	0.56*
FEAR	0.27	0.21	0.08
FRUS	-0.33	0.12	0.42
INH	0.12	0.15	-0.05
SHY	-0.12	0.40	0.13
SURG	0.18	0.55	0.61**
ICU			
N	25	24	24
CALL	0.30	0.30	0.20
UNCAR	0.38	0.30	0.14
UNEMO	0.14	0.35	0.38
ICU TOTAL	0.40	0.28	0.18

Note: * $p < .05$, ** $p < .01$; AD= Anxious/Depressed; AP= Attention Problems, AB= Aggressive Behavior, INT= Internalizing, EXT= Externalizing, CU= Callous Unemotional; IM= Impulsivity; NAR= Narcissism; INH= Inhibit; SHIFT= Shift; EMOCO= Emotional Control; MON= Monitor; MEM= Working Memory; PLAN= Plan; ORGMAT= Organization of Materials; NEG= Negativity Score; ACT= Activation; AFF= Affiliation; AGG= Aggression; ATT= Attention; DEP= Depression; FEAR= Fear; FRUS= Frustration; INH=Inhibit; SHY= Shyness; SURG= Surgency; CALL= Callousness; UNCAR= Uncaring; UNEMO= Unemotional

(Summary) Table 7. Pearson's R Correlations of Parent-Child Responses: Comparing Within Groups

Control	Psychiatric Control	Dysregulated Profile
<u>CBCL/YSR</u> <ul style="list-style-type: none"> • Externalizing • Aggressive Behavior • Attention Problems 	<u>CBCL/YSR</u> <ul style="list-style-type: none"> • Externalizing • Internalizing 	<u>CBCL/YSR</u> <ul style="list-style-type: none"> • Externalizing • Aggressive Behavior
<u>BRIEF</u> <ul style="list-style-type: none"> • Organization of Materials 	<u>BRIEF</u> <ul style="list-style-type: none"> • Inhibit • Aggression 	<u>BRIEF</u> <ul style="list-style-type: none"> • Inhibit • Shift • Emotion Control • Monitor
<u>APSD</u> <ul style="list-style-type: none"> • Impulsivity 	<u>APSD</u> <ul style="list-style-type: none"> • Narcissism 	
<u>EATQ</u> <ul style="list-style-type: none"> • Activation 		<u>EATQ</u> <ul style="list-style-type: none"> • Aggression • Surgency

Note: Group in parentheses is the group that had significantly less agreement.

Control. For the control sample ($N=25$), on the YSR/CBCL, the correlation between child and parent scores for the attention problems subscale was significant but moderate ($r=0.465, p=0.02$), the aggressive behavior subscale was significant and strong ($r=0.72, p=0.00$), and the externalizing subscale was significant and strong ($r=0.64, p=0.001$). On the APSD, the correlation between child and parent scores for the impulsivity subscale ($N=23$) was significant and moderate ($r=0.59, p=0.003$). On the BRIEF, the organization of materials subscale ($N=23$) was significant and moderate ($r=0.49, p=0.018$). On the EATQ, the activation subscale ($N=17$) was significant and moderate ($r=0.50, p=0.047$).

Psychiatric Control/PC. For the YSR/CBCL measure ($N=23$) within the PC group, the correlation between child and parent scores for the internalizing subscale was significant and moderate ($r=0.45, p=0.035$). On the APSD, the correlation on the narcissism subscale ($N=20$) was significant and moderate ($r=0.53, p=0.017$). On the BRIEF, the correlation on the inhibit subscale ($N=23$) was significant and moderate ($r=0.46, p=0.026$). On the EATQ, the aggression subscale ($N=13$) was significant and moderate ($r=0.58, p=0.036$).

Dysregulated Profile/CBCL-DP. For the YSR/CBCL measure ($N=20$) within the CBCL-DP group, the correlation between child and parent scores for the aggressive behavior subscale was significant and strong ($r=0.67, p=0.001$), for the externalizing subscale was significant and strong ($r=0.71, p=0.001$). On the BRIEF, the inhibit subscale ($N=20$) was significant and moderate ($r=0.51, p=0.029$), for the shift subscale was significant and moderate ($r=0.59, p=0.007$), for the emotional control subscale was significant and strong ($r=0.76, p=0.031$), for the monitor subscale was significant and moderate ($r=0.58, p=0.00$). On the EATQ, the aggression subscale ($N=17$) was significant and strong ($r=0.65, p=0.005$), for the depressive subscale was significant and moderate ($r=0.56, p=0.019$), and for the surgency subscale was significant and strong ($r=0.61, p=0.009$).

Comparing Degree of Correlation Among Groups

To compare the magnitude of the correlations across the three groups, Pearson Correlations were transformed to normally distributed Fischer Z scores. Pairwise comparisons probed whether the Fischer Z scores for each of the three groups were significantly different from each other. There were no significant differences in the degree of parent-child agreement across the three groups on the YSR/CBCL or on the ICU (see Table 8). However, the following significant differences in the degree of parent-child correlation across the three groups emerged:

Control vs. Psychiatric Control/PC. When degree of correlation in the control group (1) was compared to the degree of correlation in the PC group (2) on the impulsivity scale of the APSD, results show that there was a significant difference in that the control group had a significantly greater correlation than the PC group ($r_1=0.59, r_2=-0.07, p=0.02$). Comparing these two groups for the narcissism scale of the APSD, it was found that the PC had significantly greater correlation than the control group ($r_1=-0.07, r_2=0.53, p=0.04$).

Control vs. CBCL-DP. When the degree of correlation in the control group (1) was compared to the CBCL-DP group (3), a significant difference was found for the monitor scale ($r1=0.14, r3=0.76, p=0.01$) of the BRIEF and the aggression ($r1=-0.10, r2=0.65, p=0.02$) and frustration subscales ($r1=-0.33, r2=0.42, p=0.04$) of the BRIEF, such that the CBCL-DP group had a significantly greater correlation than the control group for all three subscales.

Psychiatric Control/PC vs. CBCL-DP. When the degree of correlation in PC group (2) was compared to the CBCL-DP group (3), a significant difference was found for the shift ($r2=-0.14, r3=0.59, p=0.01$) and monitor ($r2=0.24, r3=0.76, p=0.02$) subscales of the BRIEF, such that the CBCL-DP group had a significantly greater correlation than the PC group in this.

When the degree of correlation between groups was significantly different (see Table 8), follow up analyses were conducted. More specifically, given that child IQ was significantly different across the three groups, follow up partial correlation analyses explored whether IQ exerted a significant influence on the degree of parent-child agreement. The partial correlations (controlling for IQ) were then compared across groups. IQ did not change the significance of the degree of correlation across groups for the following measures: IM, NEG, MON, AGG, FRUS, and SHIFT. The only measure that IQ had a borderline significant effect on was the narcissism (NAR) subscale of the APSD (without controlling for IQ: $p=0.05$, controlling for IQ: $p=0.09$).

Table 8. Comparing Correlations Among Groups

	r1	r2	r3	N1	N2	N3	alpha12	alpha13	alpha23
YSR/CBCL									
AD	0.12	0.09	0.06	25	23	20	0.92	0.84	0.92
AP	0.47*	0.26	0.38	25	23	20	0.44	0.74	0.69
AB	0.72**	0.36	0.67**	25	23	20	0.09	0.75	0.20
INT	0.34	0.45*	0.41	25	23	20	0.67	0.81	0.87
EXT	0.64**	0.51*	0.71**	25	23	20	0.52	0.72	0.35
APSD									
CU	0.26	0.25	-0.25	23	20	20	0.98	0.12	0.14
IM	0.59**	-0.07	0.26	23	20	20	0.02*	0.21	0.33
NAR	-0.07	0.53*	0.26	23	20	20	0.05*	0.31	0.35
BRIEF									
INH	0.07	0.46*	0.51*	23	23	20	0.17	0.13	0.85
SHIFT	0.38	-0.14	0.59**	23	23	20	0.10	0.40	0.01*
EMO	0.10	0.14	0.48*	23	23	20	0.89	0.19	0.24
MON	0.14	0.24	0.76**	23	23	20	0.76	0.01*	0.02*
MEM	0.35	0.25	0.23	23	23	20	0.72	0.69	1.00
PLAN	0.31	0.06	0.31	23	23	20	0.40	1.00	0.42
ORG	0.49*	0.38	0.40	23	23	20	0.66	0.73	0.94
EATQ									
ACT	0.49*	-0.19	0.27	17	13	17	0.08	0.50	0.26
AFF	0.34	-0.06	0.48	17	13	17	0.32	0.67	0.16
AGG	-0.10	0.58*	0.65**	17	13	17	0.06	0.02*	0.80
ATT	-0.02	0.47	0.21	17	13	17	0.20	0.54	0.48
DEP	-0.00	0.16	0.56*	17	13	17	0.69	0.09	0.25
FEAR	0.27	0.21	0.08	17	13	17	0.89	0.61	0.75
FRUS	-0.33	0.12	0.42	17	13	17	0.26	0.04*	0.43
INHIB	0.12	0.15	-0.05	17	13	17	0.94	0.65	0.62
SHY	-0.12	0.40	0.13	17	13	17	0.19	0.52	0.47
SURG	0.18	0.55	0.61**	17	13	17	0.30	0.16	0.80
ICU									
CALL	0.30	0.30	0.20	25	24	24	0.99	0.73	0.74
UNCAR	0.38	0.29	0.14	25	24	24	0.72	0.40	0.63
UNEM	-0.14	0.35	0.38	25	24	24	0.10	0.08	0.90
TOTAL	0.40	0.28	0.18	25	24	24	0.67	0.43	0.73

Note: *p<.05, **p<.01; AD= Anxious/Depressed; AP= Attention Problems, AB= Aggressive Behavior, INT= Internalizing, EXT= Externalizing, CU= Callous Unemotional; IM= Impulsivity; NAR= Narcissism; INH= Inhibit; SHIFT= Shift; EMOCO= Emotional Control; MON= Monitor; MEM= Working Memory; PLAN= Plan; ORGMAT= Organization of Materials; NEG= Negativity Score; ACT= Activation; AFF= Affiliation; AGG= Aggression; ATT= Attention; DEP= Depression; FEAR= Fear; FRUS= Frustration; INH=Inhibit; SHY= Shyness; SURG= Surgency; CALL= Callousness; UNCAR= Uncaring; UNEMO= Unemotional; r1= Pearson’s correlation for group 1; r2= Pearson’s correlation for group 2; r3= Pearson’s correlation for group 3; N1= Number of participants in group 1; N2= Number of participants in group 2; N3= Number of participants in group 3; alpha12= Comparison of control (1) and PC (2) groups; alpha13= Comparison of control (1) group and CBCL-DP (3) groups; alpha23= Comparison of PC (2) and CBCL-DP (3) groups.

(SUMMARY)Table 8. Comparing Correlations Among Groups

Control vs. PC	Control vs. DP	PC vs. DP
<ul style="list-style-type: none"> • Impulsivity (PC) • Narcissism (control) 	<ul style="list-style-type: none"> • Aggression (control) • Frustration (control) • Monitor 	<ul style="list-style-type: none"> • Shift (PC) • Monitor (PC)

Note: Group in parentheses is the group that had significantly less agreement.

Table 9. Internalizing versus Externalizing Subscales for Each Group

Group	INT	EXT	N1	N2	alpha
Control (1)	0.34	0.64**	25	25	0.17
PC (2)	0.45*	0.51*	23	23	0.80
CBCL-DP (3)	0.41	0.71**	20	20	0.20

Note: * $p < 0.05$, ** $p < 0.01$; INT= Internalizing, EXT= Externalizing, N1= Number of participants for INT, N2= Number of participants for EXT; alpha= Comparison between INT and EXT

Table 10. Internalizing versus Externalizing Subscales Including All Groups

Group	INT	EXT	N1	N2	alpha
All	0.38*	0.65**	79	79	0.02*

Note: * $p < 0.05$, ** $p < 0.01$; INT= Internalizing, EXT= Externalizing, N1= Number of participants for INT, N2= Number of participants for EXT; alpha= Comparison between INT and EXT

Discussion

The primary objective of this study was to determine if there were differences in the level of agreement on child emotional-behavioral problems based on the psychiatric profiles of the child. Across the six questionnaires included in this study, agreement in various domains, including internalizing and externalizing problems, temperament, antisocial characteristics and executive functioning were assessed. The hypothesis that there would be less agreement on all six measures for the dysregulation profile group as compared to the PC and the control groups was not supported by the findings of this study. In fact, in some cases difference in the opposite direction from the hypothesis emerged, such that control dyads had the most discrepancies and CBCL-DP dyads had the least. This suggests that children with the CBCL-DP perceive their emotional-behavioral symptoms within these six measures and subscales in a way that more closely aligns with their parents' perceptions than control participants. Additionally, the hypothesis that there would be significantly less agreement between parents and children on the CBCL and YSR Internalizing subscale than the Externalizing subscale was not supported by this study when looking at specific groups. It is possible that children with the CBCL-DP may have

strong emotional-behavioral expression, thus allowing their parents to see their symptomology more clearly.

While there has been extensive literature published on multi-informant agreement, the findings to date remain contradictory. The instruments and subscales that were included in the present study were deliberately selected to gain more detailed insight into differences in parent and child perceptions of emotions and behavior among children characterized by the CBCL-DP, other psychiatric problems, and psychologically healthy children. There has been a lack of research examining how different forms of developmental psychopathology, including emotion dysregulation, may influence agreement on rating forms. Additionally, this study was novel, because it included the ICU and the BRIEF, measures that have been understudied about multi-informant agreement.

Child Behavior Checklist/Youth Self Report Subscales

The CBCL/YSR in this study was used to test hypothesis one and hypothesis two. Although parents and children's ratings were significantly correlated for Attention Problems, Aggressive Behavior, and Externalizing problems (CBCL-DP and control), and Internalizing problems (PC), there were no significant differences in the strength of the agreement between the groups (see Table 9). Furthermore, to examine hypothesis two, the degree of parent-child agreement on Internalizing and Externalizing broadband scales was calculated within each group and no significant differences emerged (see Table 9). As such, neither hypotheses one nor two was supported in this analysis. Then, a post-hoc analysis was conducted to see if there were significantly higher correspondence rates in for the Externalizing subscale within the entire sample overall compared to the Internalizing subscale. When broadening the test to include all the groups in one sample, a significant result emerged. Externalizing subscale parent-child

responses had a significantly higher agreement when compared to Internalizing subscale parent-child responses ($EXTr=0.65$, $INTr=0.38$, $p=0.02$) (See Table 10).

Existing research focusing on inter-parental as well as parent-teacher concordance on subscales of the CBCL has not found strong correlations on parent-child agreement when examining internalizing problems (Achenbach et al., 1987; Stranger & Lewis, 1993). Instead, greater levels of agreement have been observed between respondents when examining externalizing behaviors, presumably since externalizing behaviors are more observable to parents (Achenbach et al., 1987; Duhig et al., 2000). However, the results of the current study and previous studies did not support this for the proposed hypothesis but did in a broader post-hoc test. This illustrates that the overall, larger population does tend to show more agreement for externalizing problems compared to internalizing problems, as shown in past literature (Jensen et al., 1999, Kolko & Kazdin, 1993).

Inconsistencies between the current study and past studies could be attributed to varying family characteristics, such as parental depression (i.e. the Depression Distortion hypothesis), which was not controlled for in the current study but could be examined in future studies. It could also be related to the fact that parents of children that have been diagnosed with a psychiatric disorder may be more aware of their children's emotions and behavior. Since most of CBCL-DP group children were in treatment at the time of the study, these families may have had more awareness of their symptoms because they were discussed during their treatment, leading to better agreement. A lack of difference in controls also could be due to the parenting style towards the child. If the parent-child relationship is secure and strong, then there may be many more areas of agreement regarding their emotional-behavioral symptoms.

Antisocial Process Screening Device Subscales

For the APSD, hypothesis one was not supported, as the CBCL-DP group did not differ from other groups in terms of parent-child agreement. Based on past literature, it was surprising that the CBCL-DP group did not have significant differences in their agreement when compared to the other two groups. The significant different degree of correlation between the PC group and control group on the Narcissism subscale may be caused from the treatment effects stated previously. When there are higher levels of parental attention towards their child with psychiatric problems, it could cause the parent to have a more focused outlook of the child's behavior problems (Seiffge-Krenke & Kollmar F, 1998). On the other hand, the explanation for why the PC group had significantly lower correlation than the control group on the Impulsivity subscale could indicate that the child's impulsivity is not manifested at home as much as in other contexts as supported by previous research (Martel, Markon, & Smith, 2016).

A limited amount of research has explored multi-informant agreement when rating a child's psychopathic traits such as interpersonal callousness, emotional insensitivity, narcissism, impulsivity, and risk-taking (Frick & Hare, 2001) so discussion on this topic is inconclusive. But, a study conducted by Ooi and colleagues confirmed low parent-child agreement on the APSD, which is somewhat consistent with the findings of current study for the control and PC groups (2016).

Behavior Rating Inventory of Executive Function Subscales

Results showed that agreement on the subscales of the BRIEF had significant differences across groups on the Shift and Monitor subscales between the PC and CBCL-DP groups. Thus, the hypothesis that parent-child agreement would be lower for the CBCL-DP group as compared to the other groups was not supported. In fact, the results showed that group differences were in the opposite direction of the hypotheses, such that the CBCL-DP dyads had higher levels of

agreement on the Shift and Monitor subscales. There does not seem to be an obvious explanation for this finding, except for the possibility that treatment effects led to CBCL-DP families being more aware of the child's symptoms and therefore more consistent reporters.

The Shift subscale measures one's ability to move freely from one activity to another, to tolerate change, or switch or tolerate attention. The Monitor subscale explains the ability to check one's work and assess performance, or the ability to see how one's behavior effects other people. A child with the CBCL-DP has heightened levels on Attention Problems and is often carrying a diagnosis consistent with problems in the attentional domains. Therefore, it is possible that informants may be more sensitive to changes in attentional domains. For instance, with heightened attention problems, a child may look for the way that they are able to shift their attention or monitor their attention in certain situations, therefore having a good grasp on those behaviors.

There is little literature on parent-child agreement when assessing a child's executive functioning through the BRIEF. Executive functioning, including specific or broad self-regulatory abilities to achieve goal-oriented problem solving and behavior, plays a critical role in children's cognitive, behavioral and social development. Children that exhibit symptoms of dysregulation have more difficulty regulating their emotions and behavior, which may be related to underlying executive functioning deficits. Interestingly, the CBCL-DP group had significantly higher agreement on the Monitor when compared to the control group, and on the Shift and Monitor subscales when compared to the PC groups.

Early Adolescent Temperament Questionnaire Subscales

Results showed group differences on the Aggression and Frustration subscales, such that the CBCL-DP had greater agreement than the control group, thus not supporting the hypothesis. Aggression and frustration have been studied within the broader category of externalizing behavior problems in child psychopathology, and it has been found that there are low-to-moderate levels of informant agreement on ratings of both scales, which contradicts our findings (Herjanic & Reich, 1982, Jensen et al., 1999; Kashani et al., 1985). The literature specifically looking at these subscales explains the moderate agreement for Aggression and Frustration subscales as being existing due to the fact that they are more observable traits than others (such as Depressive, Inhibit, and Fear subscales of the EATQ). There was higher agreement for the CBCL-DP group in which these symptoms are presumably, more extreme and observable. Interestingly, this was not the case for broader scales of externalizing behavior from the CBCL/YSR in the current study.

Inventory of Callous and Unemotional Traits Subscales

In the analysis examining the parent-child agreement of callous and unemotional traits, there were no significant correlations within dyads and no significant differences on the degree of correlation between groups for any of the subscales. Interestingly enough, there were significant differences in some of the scales of the APSD, which overlaps in subscales with the ICU, namely the Narcissism, Callous, and Unemotional subscales. When comparing the APSD and the ICU, the APSD screens for children between the ages of 6-13 years while the ICU screens for children between the ages of 13-18 years. As stated before, when a child is older, such as in those from the ICU, they are able to comprehend the questions on the measure more thoroughly, thus aligning with the responses of their parents more frequently. On the other hand, younger children, such as those who were included in analyses for the APSD (which did have

significant differences), may not be able to fully interpret the questions being asked. It was necessary to read the questions aloud to some of the youngest children in the study, possibly causing misinterpretation of the problem items.

Limitations

There are some limitations with the current study that should be noted. First, this study did not have a very large sample size ($n=87$) compared to other studies in this field that have used samples of 300 to 1000 participants. Thus, our study may have been underpowered to detect some effects. Not only was the sample size small, but it was taken from a location that is predominately Caucasian, which decreases the generalizability of the overall study to the population of children in the United States. It is important to conduct analyses of multi-informant agreement and include children from different states, with different ethnicities and races. Furthermore, the parent sample was predominantly maternal. However, previous research has demonstrated that fathers have important and necessary contributions when reporting on a child's emotional-behavioral problems (Cassano, Adrian, Veits, & Zeman, 2006). Future research should measure reports from the child's father to assess parent-child agreement on the measures examined to gauge this importance. Additionally, many of these dyads participating in this study were referred through an outpatient child psychiatry clinic, so there were higher rates of emotional-behavioral problems than in the general population. This also resulted in a high proportion of the sample being involved in psychiatric treatment during the time of data collection. Since it is hard to get dysregulated kids from the community that are not already in treatment, it would be of interest to see how the effects of being in treatment over time change the amount of multi-informant agreement between the parent and the child. Finally, because of the small size of the final sample, age was not specifically examined in this study, but past

studies have found significant differences in multi-informant agreement depending on the child's age (Achenbach et al., 1987). It is important to control for age when studying multi-informant agreement in the future.

Conclusion

Research on multi-informant agreement has not determined a “gold standard” informant for assessing child emotional-behavioral problems. By considering more than one perspective (i.e. child, parent, teacher, etc.), professionals are able to obtain a more complete view of the child's symptomology. The current study similarly has reached conflicting conclusions with regard to identifying and interpreting patterns of agreement in different domains. The dyads that were expected to have the most amount of concordance (i.e. controls), ended up having the most discrepancy across subscales and the least discrepancy was found for the CBCL-DP group.

The interpretation is that because the CBCL-DP children are the most severely symptomatic children in the sample, they are most likely to be receiving psychological treatment for their emotional-behavioral problems. With this, both the child and the parent would more often understand the symptoms that the child is expressing as compared to families where a child had few symptoms and was not seeing a clinician. If true, future research should investigate how agreement changes over the course of treatment. For instance, how much correspondence a child with dysregulation or other psychiatric problems is with other informants throughout the duration of their treatment and if that shifts significantly. Furthermore, parenting style could have influenced the strong correlation of the parent-child responses on the six measures. With a secure parenting style, there is room for trust to be built, as well as a solid relationship between the dyad, leading to a child to open up to their parent more about their emotional-behavioral symptoms.

It is possible that the controls in this study had the lowest level of agreement because families may discuss emotional-behavioral symptoms less when they are not causing impairment for the children. In general, however, the results here indicate agreement between children and parents depends on a complex set of factors including the domain assessed, the psychiatric symptoms of the child, involvement in treatment, and possibly parent and communication styles within the family. It is important that future research continue to study these complex relations, particularly among those where agreement is very low, to have a greater understanding to why these differences may exist. With this knowledge, children will be able to have more individualized and effective treatment that incorporates and integrates various perspectives.

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