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#### **Author Affiliations**

Rabab Zahidi, Georgia State University

Jessica S. Rogers, Georgia State University

Wendy P. Guastaferro, Florida Atlantic University

Daniel J. Whitaker, Georgia State University

#### **Corresponding Author**

Rabab Zahidi (rzahidi1@gsu.edu)

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### **Relationship Between Self-Report and Observed Parenting Among Parents in Treatment Versus Not in Treatment Populations**

Rabab Zahidi MPH<sup>1</sup>, Jessica S. Rogers MPH<sup>1</sup>, Wendy P. Guastaferro PhD<sup>2</sup>, and Daniel J. Whitaker PhD<sup>1</sup>

<sup>1</sup>School of Public Health, Georgia State University, Atlanta, GA; <sup>2</sup>School of Criminology and Criminal Justice, Florida Atlantic University, Boca Raton, FL

Corresponding Author: Rabab Zahidi • 14 Marietta St, 221, Atlanta, GA, 30303 • 949-294-4080 • rzahidi 1@gsu.edu

#### ABSTRACT

**Background:** Most maltreatment, by definition, is a failure of parenting. However, even without maltreatment, poor parenting can lead to a variety of negative outcomes including social, emotional and behavioral problems. Given that parenting plays a key role in child outcomes, one of the foci of interventions are parenting programs. Interventions for parents must be evaluated using standardized assessment tools, which leads to an important question; how can we best assess parenting? Observational methods (observing a parent and child interact) are often regarded as the gold standard in the assessment of parental behaviors but are cumbersome to administer. Self-reports of parenting behaviors are the most commonly used measure due to ease of administration, but their validity may be questioned. The goal of this study is to examine the relationship between three observational measures of parenting and two self-report measures.

**Methods:** Participants (n=133) were either parents who were receiving treatment at Metro-Atlanta drug courts or other caregivers. All participants completed self-report measures of parenting, and videotaped interaction task with a child. Videos were coded for a variety of behaviors, and two of those behaviors (affection and involvement) matched constructs that parents reported on in a self-report battery.

**Results:** Correlations between self- report and observational measures for the constructs affection and involvement for the whole sample ranged from r = -.03 to .06 for affection, and r = -.05 to .08 for involvement, but none were statistically significant. The relationship between self-report and observed parenting by adult type and child age was also examined. However, none of the correlations were statistically significant.

**Conclusions:** Although there were no significant correlations found between self-report and observational measures, existing research suggests that self-reports are not interchangeable with observational methods. In future studies, constructs used to compare self-reports and observational methods should examine how each relates to the outcomes. Furthermore, CAIC (observational tool) should also be examined in further detail.

**Keywords:** Observation methods, self-report methods, parenting, behaviors: warmth and involvement, coerced population, non-coerced population, and child age https://doi.org/10.20429/jgpha.2019.070217

#### INTRODUCTION

#### Parenting as a public health issue

The Centers for Disease Control and Prevention (CDC), defines child maltreatment (CM) as physical, emotional and sexual abuse, neglect and mistreatment of a child under 18 by a parent, caregiver or a person in a supervisory role such as a teacher or a coach (Leeb, Paulozzi, Melanson, Simon, & Arias, 2008). CM has been associated with a range of negative social, emotional, psychological, and behavioral consequences including stress, anxiety, and depression; drug and alcohol problems; risky sexual behavior; delinquency and criminal behavior (Gilbert, Widom, Browne, Fergusson, Webb, & Janson, 2009). Victims of maltreatment are also more likely to have a variety of medical problems (lung cancer and liver diseases) later in life (Brown, Anda, Felitti, Edwards, Malarcher, Croft, & Giles, 2010; Dong, Dube, Felitti, Giles, & Anda, 2003).

At its core, most maltreatment (neglect and physical abuse) is, by definition, a failure of parenting. A great deal of research has shown that parenting strongly influences child behavior and development (Aunola & Nurmi, 2005). Poor parenting, even when it does not rise to the level of maltreatment, can contribute to a range of costly social, behavioral and emotional problems in adolescents, such as use of alcohol, tobacco and drugs, suicide and unintended pregnancies (Bennett, Kang, Alperstein, & Kakakios, 2004; Chu, Farruggia, Sanders, & Ralph, 2012) that may continue into adulthood.

#### Assessing parenting

Given that parenting plays a key role in child outcomes and maltreatment, valid methods are required to assess parenting behaviors for both etiologic and intervention studies. Selfreports and observational methods are the two primary sources utilized. In self-report methods, parents complete validated scales (questionnaires) by indicating levels of parenting knowledge, attitudes, or practices. Self-reports are the most commonly used method because of the flexibility, ease of administration, and efficiency that they offer. This method also allows for data to be collected on multiple concepts in a single setting. Self-report methods have the potential for distortion that can be caused by various sources of bias (recall bias, perceptual bias, and social desirability bias). Self-report method consists of multiple choice questions, common in most surveys. However, this can result in inflexibility and a decline in validity (Althubaiti, 2016; Morsbach & Prinz 2006; Paulhus & Vazire, 2007). Observational methods are often considered the "gold standard" of parenting assessment, as they are viewed as more objective (Fassnacht, 1982) and less subject to reporting bias (Hawes & Dadds, 2006). They can be carried out in natural settings (sites that are not influenced by the study; such as the participant's home) which helps in capturing real behaviors such as criticism, expressions of affection, or simply engagement with a child. Data is collected during the occurrence of the activity and, therefore are a function of the parent's actual and accurate behavior, not a verbal retelling of that behavior (Gardner, 2000), allowing the method to have greater validity (Bennett, Sullivan & Lewis, 2006). Observational methods have distinct disadvantages as well. They are time-consuming, expensive, and require trained data collectors and coders and thus are subject to observer's bias and social desirability bias (Margolin, Oliver, Gordis, O'Hearn, Medin, Ghosh, & Morland, 1998; Stoolmiller, Eddy, & Reid, 2000). Social desirability biases can affect both self-report and observational methods, but they have a greater impact on self-report methods (Bennett et al., 2006). Given the relative advantages of self-report (ease of administration, flexibility, and efficiency) along with its disadvantages (potential for distortion caused by various sources of bias, inflexibility and decline in validity (Paulhus & Vazire, 2007; Althubaiti, 2016)) and the greater perceived objectivity of observational methods, it is important to understand the relationship between the two types of measures.

There has been a significant amount of research on parenting skills, but a lack of agreement on the best method to assess parenting. An important question that arises is, to what extent do self-report and observational methods of the same parenting construct correlate? Research examining the association between self-report and observational indices of parenting behavior has yielded mixed findings with variation in the correlation being related to the age of the child involved (Arney, 2004). The primary goal of this paper is to examine the relationship between observational and self-report measures of two key parenting constructs, affection and involvement and whether that relationship differs by two subpopulations. Affection (signified by warmth) is considered one the most important and pervasive First, we examined the relationship between observational and self-report methods for parents who were mandated into treatment vs. those who were not. Parents in services systems such as child welfare systems or criminal justice system may be coerced into treatment and can have strong motivational biases to 'fake good' on self-report surveys. This can affect the accuracy of the reporting (Morsbach & Prinz, 2006) although research has shown that high scores on lie indices do not necessarily relate to behavioral differences displayed in observational tasks (Costello & McNeil, 2014).

Second, we examined whether the relationship between observational and self - report parenting differed according to the age of the child. Prior studies offer limited data, but those studies generally indicate an inverse relationship between child age and the correlation between the two methods (Arney 2004); that is, there are stronger correlations among parents with younger children (age range of 1 to 5 in studies by Arnold, O'Leary, Wolff & Acker (1993); and Dowdney, Mrazek, Quinton, & Rutter (1984); compared to older children; aged 9 to 18 years (Feinberg, Neiderhiser, Howe, & Hetherington, 2001). It is unclear why, but it is possible that older children behave differently during observational measures compared to younger children (Mrazek, Dowdney, Rutter, & Quinton, 1982; Arney, 2004), and this causes more variability and less consistency in parent behavior (Dowdney et al., 1984; House, Umberson, & Landis, 1988).

#### METHODS

#### Data source and recruitment

Data for this paper came from a larger study that was a quasi-experimental evaluation of family-based services implemented in drug courts (two adult treatment courts and two family treatment courts in Metro Atlanta). For this paper, only baseline data was used, and the interventions and evaluation are not discussed further. Once the clients enrolled in one of four Metro-Atlanta drug courts, they and their families were eligible to participate in the study. The inclusion criteria included a) being a client of one of the four drug courts b) being a parent or primary caregiver of a child under the age of 18 and c) completion of the initial treatment phase (residential detoxification and stabilization phase). After a client was recruited, the research team would recruit another caregiver and a child to participate in the study. Other caregivers were broadly defined and could boyfriends/girlfriends, include spouses, participants' relatives or people who played a regular parenting role to the child and were not clients of a drug court. To incentivize participation, each adult received a \$75 gift card and each child received a \$20 gift card (only children 8 and older completed the survey).

From June 2013 to April 2017, 466 drug court participants attended the short presentations for recruitment at different

drug courts. Out of those, 207 participants were eligible, and 133 (64%) participants enrolled in the project.

#### Assessments

Assessments were conducted by two members of the research team and mostly took place in the participant's home. Consent forms were read and signed by both adults (participant and co-parent). Children aged six to ten gave verbal assent and those aged 11 to 17 years signed the forms to participate. In the consent form, participants agreed to complete an assessment that included a self-report survey and a video-recorded interaction with the child.

The self-report surveys were conducted on a laptop or tablet with headphones via an audio assisted computer selfinterview to ensure privacy. To encourage honest responses, participants were reassured that the answers provided for the surveys would not be shared with the drug court program.

The parent-child video interaction task took place after the survey was completed. The nature of the video task differed according to the age of the child. Parents of children under five years old (n = 43) were asked to engage in a 10-15 minutes play activity, to capture free play behaviors. If the child was less than one year old, the parent had a choice of either reading a book or talking and interacting with the child.

For children aged between 6 years to 9 years (n = 49), the video interaction task consisted of three parts: two discussion questions (Daily Debrief Activity and Planning a Positive Activity) and one play activity. The Daily Debrief Activity was a 4-minute task in which the adult and child were instructed to talk about the most recent period they were apart from each other, e.g. when the child was at school. The Planning a Positive Activity task was a 5-minute task in which the parent and child were asked to plan activities that they would do together if they were off from school and work for a whole week.

For children aged between 10 to 17 years (n = 38), three discussion based tasks were assigned: Daily Debrief, Planning a Positive Activity, and Problem Solving. Problem Solving Activity was a 7-minutes task in which the parent and child were provided with a list of common issues parents and children disagreed on (e.g., child using cellphone, child not doing chores around the house), and they were asked to choose an issue and discuss it in detail and try to form solutions together.

#### Self-report surveys

Because the current study focused on parenting practices, only the relevant parenting scales will be discussed.

The Alabama Parenting Questionnaire (APQ; Essau, Sasagawa, & Frick, 2006) is a 42-item self-report measure that assesses five key parenting constructs: involvement, positive parenting, poor monitoring/supervision, inconsistent discipline, and corporal punishment. The primary foci were on the constructs; *involvement* (10 items; e.g., you have friendly talk with your child) and *positive*  parenting (6 items; e.g., you let your child know when he/she is doing a good job with something) as they mapped on to specific constructs being assessed via observational methods. The Parent Child Communication Scale (Loeber, Farrington, Stouthamer-Loeber, & Van Kammen, 1998) is a 20-item scale used in the FastTrack project (n.d., 2011) and was adapted from the Pittsburgh Youth Study (Loeber et al., 1998). The parent report version consisted of 20 items that assessed the constructs discipline, punishment, communication, rewards, positive parenting, empathy, and parent-child relationship (n.d., 2011). For this study, the 6item parent communication subscale (alpha = 0.76) was used, which assessed the positivity of parent-child communication. A sample item from the subscale included "Do you and your child come to a solution when you talk about a problem?" Each item is rated on a 5 point scale, and items within a subscale were averaged.

# Observational measures and coding of parent-child interactions

Three different coding schemes were used to code the parent-child videos to suit the different video recorded tasks. To code parent-child discussions, two observational scales were used; Fast Track's Observer Impressions scale Caregiver Adolescent Interaction Coding or CAIC (a scale developed for this study). To code play activities, PICCOLO (Parenting Interactions with Children: Checklist of Observations Linked to Outcomes) scale was used (Roggman, Cook, Innocenti, Jump Norman, & Christiansen, 2009). Two coding schemes were used for the discussion activities because Fast Track was the behavioral measure in which the observer counted how often a specific behavior occurred, and CAIC was more generalized.

Fast Tracks' Observer Impression is a 58-item scale that was used to code the three discussion-based tasks. Each item was rated on a 3-point scale (0, 1, and 2) and items within a subscale were averaged. The observer rated both the child and parent; however, only the parent scale was examined. The constructs of interest were affection/warmth (positive physical contact) and involvement because they mapped to constructs assessed via self-report.

CAIC is a 9-item measure developed for use in this study. Constructs were taken from Eyberg's Dyadic Parent-Child Interaction Coding System (Robinson & Eyberg., 1981) and adapted for older children and the specific observation task used for this study. There were nine items on CAIC assessing both the parent and child characteristics including affection/warmth, knowledge/awareness of child's life, engagement/involvement, reasonable expectation, and presence of role reversal. The primary focus was on the ratings of the parent behaviors of affection/warmth (one item) and involvement (one item).

PICCOLO is a 29-item observation tool used to assess parenting behaviors of parents and young children (10-47 months). The measure assesses four constructs: affection/warmth, responsiveness, encouragement, and teaching. Construct affection (7 items, e.g., Parent speaks in a warm tone of voice) was evaluated.

#### Training of coders and reliability

Three research assistants were trained to code the videos using the three scales described above. All of the videos were coded by two raters to ensure reliability. The reliability was measured by the intra-class correlation (ICC). Typically, ICCs above .60 are considered good, and ICCs above .75 are considered excellent (Cicchetti, 1994). In computing ICCs, for CAIC and Fast Track, the judges were treated as fixed effects because multiple judges were used to rate the same observations. For PICCOLO, the means of the individual items for each judge were analyzed (this is in line with the developer's recommendations), and the ICC of the mean subscale score were then examined using Shrout and Fleiss (1979) reliability mean of K scores. Since two coders coded the videos, ratings were averaged on each scale to create the rating used in the analysis.

Table 1. Summary of observational and self-report measures	s for affection and involvement by child age
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	ICC	Affection	Involvement
Observational tools			
CAIC	0.75	1 item for children 6-17 (n	1 item for children 6-17 ( $n = 87$ )
		= 87)	
Fast Track	0.74	3 items for children 6-17	12 items for children 6-17
		(n=87)	(n=87)
PICCOLO	0.85	7 items for children 0-5	
		(n=43)	-
Self- Reported measure			
APQ		6 items for children 2-17	14 items for children 2-17
	-	(n=108)	(n=108
PCC			6 items for children 6-17
	-	-	(n=108)

#### Statistical analysis

Statistical analysis was performed using SAS 9.3. First, the frequency distribution along with means and standard deviations of the variables was examined to summarize the data. Then Pearson's correlations were calculated to examine the relationship between the constructs (affection and involvement) by assessment methods (self-report and observational). Correlations were computed for the entire sample, and then separately by adult type (drug court client and other caregivers) and by the age of the child (0-5 years, 6-9 years, and 10-17 years).

Descriptive statistics for the constructs affection and involvement by participant type (clients and other caregivers) are presented in Tables 2 and 3. It is worth noting that parent reports of behavior were generally very positive in both the domains of affection and involvement. Both clients and other caregiver scores were at the upper end of each scale (e.g., means of 27 out of 30 for APQ-Affection and 39-40 on the 50-point APQ-involvement scale).

Observational scores were also generally toward the upper end of the scale for CAIC (e.g., means of about 4 out of 5 for affection and involvement) and PICCOLO (e.g. means of about 1.5 out of 2 for affection and involvement), but toward the lower end of the scale for the Fast Track measure (e.g. means of about 0.4-0.96 out of 2 for affection and involvement). Zahidi et al.: Relationship Between Self-Report and Observed Parenting Among Parents in Treatment Versus Not in Treatment Populations

	Drug Court Participants			C	ther Caregive)	rs
	п	М	SD	п	М	SD
Observational Measures						
CAIC	49	4.24	0.66	38	4.14	0.70
Fast Track	49	0.40	0.60	38	0.40	0.62
PICCOLO	51	1.46	0.32	41	1.46	0.29
Self -reported measure						
APQ- Affection	64	27.13	2.81	44	27.32	2.99

#### Table 2. Descriptive Statistics on Affection by type of participant

#### Table 3. Descriptive Statistics on Involvement by type of participant

	Dru	Drug Court Participants			Other Caregivers		
	n	М	SD	n	М	SD	
Observational measures							
CAIC	49	4.40	0.59	38	4.27	0.79	
Fast Track	49	0.96	0.30	38	0.97	0.29	
Self-reported measures							
APQ-Involvement	64	39.22	6.49	44	40.52	5.53	
PCC	64	4.06	0.70	44	4.00	0.76	

#### RESULTS

#### Sample

For the current study, only baseline assessment data was used. The sample consisted of a total of 128 participants (5

participants declined to participate in the video portion of the study) which was comprised of 74 drug court participants and 54 co-parents who were not drug court clients (Table 4).

#### Table 4. Demographics of Drug Court and Other Caregiver Participants

	All Part (N=1	-	Drug Court Participants (N=74)				p-value (chi square or T test) (α=.05)
	N	%	n	%	п	%	
Female	80	62.5	41	55.4	39	72.2	0.05
Race							0.71
White	75	58.6	44	59.5	31	57.4	
Black	48	37.5	28	37.8	20	37	
Other	5	3.9	2	2.7	3	5.6	
Married	76	59.4	38	51.3	38	70.4	0.03
Educational							0.21
Status	21	16.4	13	17.6	8	14.8	
< HS	48	37.5	23	31.1	25	46.3	
HS Graduate	59	46.1	38	51.4	21	38.9	
Some College							

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	All Parti (N=1	-	0	Participants 74)		aregivers =48)	p-value (chi square or T test) (α=.05)
Employment							0.003
Status	29	22.7	9	12.2	20	37	
Unemployed	34	26.6	24	32.4	10	18.5	
< 30 hrs/ wk	65	50.8	41	55.4	24	44.4	
+ 30 hrs/ wk							
Annual							0.62
Household							
Income	55	43	34	46	21	38.9	
< \$25,000	46	35.9	26	35.1	20	37	
\$25-49,000	18	14.1	9	12.2	9	16.7	
> \$50,000							
Number of							0.11
Adults in Home							
1	20	15.6	12	16.2	8	14.8	
2	73	57.0	37	50	36	66.7	
3+	25	10.2	16	21.6	9	16.7	
Additional	127	99.2	73	98.7	54	100	0.39
Income Received							
Additional	67	52.3	34	46	33	61.1	0.09
Support Services							
Received							
Custody Status							0.65
Non-custodial	57	44.5	32	43.2	25	46.3	
Shared or Partial	45	35.2	23	31.1	22	40.7	
Full	3	2.3	2	2.7	1	1.9	
Other	18	14.1	14	18.9	4	7.4	

# Correlations between self- report and observational measures

The correlations between self-reported and observational measures for constructs affection and involvement were computed (Table 5). The first column shows the relationship between the observational measure and the self-report measure for affection and involvement for the whole sample. None of the correlations were statistically significant, ranging from r = -.03 to .06 for affection, and r = -.05 to .08 for involvement.

# Self-Report and observational measures correlation according to adult type

Next, the relationship between self-report and observed parenting by adult type was examined.

Table 5. For both types of adults (clients and other caregivers), none of the correlations were statistically significant for either affection or involvement. For affection, the correlations ranged from r = -.19 to .06 for clients and r = -.01 to .18 for other caregivers. For involvement, the correlations ranged from r = -.23 to .11 for clients and r = .03 to .15 for other caregivers. Interestingly, the correlations that were largest in magnitude were in the direction opposite of the hypothesis, indicated a negative relationship between reported and observed parenting.

Table 5. Correlations between Self-reported and Observational Measures for Affection and Involvement according to
Adult type (Drug Court Clients and Other Caregivers)

	Overall (n = 128)	<b>Drug Court Client</b> (n = 74)	Other Caregivers (n = 54)				
Affection							
CAIC – APQ	r =03 p = 0.76 (n =	r=19 p = 0.19 (n = 49)	r=.17 p = 0.32 (n = 36)				
	85)						
Fast Track—APQ	r = .03 p = .80 (n = 85)	r = .06 p = 0.67 (n = 49)	r =01 p = 0.94 (n = 36)				
PICCOLO – APQ	r = .06 p = .64 (n = 71)	r =01 p = 0.94 (n = 41)	r= .18 p = 0.33 (n = 30)				
Involvement							
CAIC—APQ	r =05 p =. 62 (n = 85)	r =23 p = 0.12 (n = 49)	r = .11 p = 0.51 (n = 36)				
CAIC- PCC	r = .08 p = 0.49 (n = 85)	r = .11 p = 0.43 (n = 49)	r = .03 p = 0.88 (n = 36)				
FastTrack- APQ	r = .07 p = 0.55 (n = 85)	r = .03 p = 0.82 (n = 49)	r = .10 p = 0.55 (n = 36)				
FastTrack- PCC	r = .08 p = 0.46 (n = 85)	r = .04 p = 0.80 (n = 49)	r = .15 p = 0.39 (n = 36)				

## Self- report and observational measures correlation according to child age

The relationship between observed and reported parenting by child age is shown in Table 6. Similar to the results by adult type, there were no significant correlations between observational and self-reported measures for either affection or involvement. For affection, the correlation was r = .14 for age group 0 - 5 years, ranged from r = -.11 to .06 for age group 6 - 9 years, and ranged from r = -.17 to .19 for age group 10 - 17 years. For involvement, the correlation ranged from r = .01 to .21 for age group 6 - 9 year and r = -.12 to .02 for age group 0 - 17 years.

	Parents of kids 0-5 (n= 31)	Parents 6-9 (n = 47)	Parents of kids 10+ (n = 37)
Affection			
CAIC – APQ	-	r = .06 p = .69 (n = 47)	r =17 p = .29 (n = 37)
Fast Track—APQ	-	r =11 p = .47 (n = 47)	r = .19 p = .27 (n = 37)
PICCOLO – APQ	r = .14 p = .54 (n = 22)	r =07 p = .64 (n = 47)	-
Involvement			
CAIC—APQ	-	r = .01 p = .96 (n = 47)	r =12 p = .49 (n = 37)
CAIC- PCC	-	r = .11 p = .46 (n = 47)	r = .01 p = .94 (n = 37)
FastTrack- APQ	-	r = .10 p = .52 (n = 47)	r =05 p = .78 (n = 37)
FastTrack- PCC	-	r = .21 p = .17 (n = 47)	r = .02 p = .91 (n = 37)

 Table 6. Correlations between Self-Report and Observational Measures for

 Affection and Involvement According to Age Group

\*14 participants missing

#### DISCUSSION

Overall, no relationship was found between self-report and observational measures for either affection or involvement constructs. This was true for the overall sample, and by parent type and age of child. Thus, the main hypotheses were not supported.

There are several possible explanations as to why no correlation was found. One explanation centers around the

constructs compared (affection and involvement), and the specific measures used to capture each. Specifically, it may have been the case that the self-reported and observational measures targeted different aspects of the construct. For example, for the construct affection, positive parenting subscale of APQ (self-report) was compared to one item of Fast Track. One of the questions APQ subscale survey asked was "You let your child know when he/she is doing a good job with something," compared to a question asked on the Fast Track survey "displays positive physical contact?". Certainly, positive talk and positive physical contact are both aspects of affection but are different behaviors that may not always be related. Also, the self-report survey asks about behaviors generally, while the observational measures assess behavior in a short, specific context. For involvement, parent communication subscale (6 items) of PCC (self- report) was compared to one item of CAIC (observational measure). Again, there was a possible mismatch between the items. For example, one of the PCC subscale items asked "Do you and your child come to a solution when you talk about a problem? (Rating on a scale of 1 to 5). The CAIC item asked, "how engaged and/involved is the caregiver in the conversation with the child?"(Rating on a scale of 1 to 5). In this case, the observational assessment question (CAIC) was a more generalized impression of the observer and not a specific behavior compared to a self-report survey (PCC).

Although self-reports are the most commonly used method in assessing parenting, the various literature supports that self-reports cannot be held at the level of observational measure, which is considered superior because responses are more objective (Bennett et al., 2006; Fassnacht, 1982; Hawes & Dadds, 2006). While self-reports have the advantages of flexibility, ease of administration, and provide efficiency in collecting different conceptual data in a single setting; the disadvantages outweigh the advantages. Perceptual bias may have played a role in the results. Parents rated themselves very positively on the self-report scales (perhaps perceiving that their skills were better than they were), and this could have affected the overall correlation.

When comparing results of both measures in the drug court client population, social desirability bias also could have played a role. The pressure of social approval, the desire to avoid disclosure of risky behaviors and the fear of losing custody of their children, could have led the participants to rate them higher, causing distorted results. Future studies should assess social desirability bias in these populations to understand the impact of it on the results.

Observational methods are considered more 'objective' because a third person (coder) was grading the video, blinded to the participant's status. These videos were recorded in participants' natural settings and therefore the parents, other caregivers and children were assumed to be more relaxed and behavior more naturally. However, biases can also affect observational data. Participants will naturally behave more positively when being observed than they would otherwise. Coders may have a natural tendency to rate parents positively because they don't want to think of anyone as a 'bad parent.'

There were several limitations with the data that was analyzed, the first being the sample size. Although the sample size was moderate (n=128), there was a larger number of drug court clients (n= 74) compared to other caregivers (n=48). Furthermore, when analyzing correlations by child age, the number of participants decreased; the lowest was for children aged 0-5 years (n=22). In addition to the sample size, this data may not be generalizable to different populations. Another limitation was that although there was reliability between the coders, there is currently no external validation of the observational measures and coding scheme.

#### CONCLUSIONS

Because parenting behaviors have such a strong impact on children's health and well-being, it is critical that we understand how to efficiently and effectively assess parenting skills. Easy and efficient measures are needed to gauge parents' improvements from programs and assess behaviors in research studies. The two primary methods of assessment are self-report and observation. The former is more efficient, but the latter is considered more valid. Though there was no correlation found between these two assessment methods, the results are consistent with the notion that self-report scales used here may be measuring distinct constructs than the observational tools. This supports the current research, which suggests that selfreports are not interchangeable with observational measures. One future direction of the research would be to examine CAIC (observational tool) in more detail. Future analyses of this data should validate the two types of measures by examining how each relates to the outcomes. Though the two measures of parenting were unrelated, it is possible that one or both could relate to specific outcomes.

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