

Assessing abuse risk beyond self-report: Analog task of acceptability of parent-child aggression.

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Abstract:

Objectives

The present investigation reports on the development and initial validation of a new analog task, the Parent-Child Aggression Acceptability Movie Task (P-CAAM), intended to assess respondents' acceptance of parent-child aggression, including both physical discipline and physical abuse.

Methods

Two independent samples were utilized to develop and evaluate the P-CAAM: an undergraduate sample to initially pilot the task and a separate sample of normative parents for additional assessment of validity. Scores from the P-CAAM were compared to related measures, including measures of self-reported disciplinary attitudes, child abuse potential, harsh parenting style, and use and escalation of physical discipline practices on another analog parenting task.

Results

Across the studies, the P-CAAM demonstrated acceptable internal consistency and construct validity, evidencing mild to moderate associations with both self-report and analog measures. Participants demonstrating increased acceptance of physical discipline and physical abuse on the P-CAAM analog task also reported greater approval of physical discipline, greater use of and escalation of physical discipline, harsher parenting styles, and higher child abuse potential on two separate measures.

Conclusions

The P-CAAM analog appears to offer a promising alternative and/or supplement to conventional self-report measures, assessing attitudes regarding the acceptability of parent-child aggression in a way that is less likely to be influenced by social desirability. Suggestions for future evaluations with alternative samples, as well as possible implications of the data for disciplinary reactions are discussed.

Practice implications

The development of alternatives to self-report measurement may lead to clarification of theoretical models of abuse in ways that lead to improvements in intervention programming; analogs may also provide a useful means to assess intervention programming outcomes.

Keywords: child maltreatment | physical abuse | child abuse potential | disciplinary attitudes | analog tasks | child abuse | parent-child relationship

Article:

Introduction

Of the 905,000 substantiated cases of child maltreatment in 2006, physical abuse constitutes approximately 16% (US Department of Health & Human Services [DHHS], 2008), second only to neglect. Moreover, only 25.2% of reported cases rise to the exacting substantiation standards of protective services, an agency that received nearly 3.3 million referrals in 2006 (DHHS, 2008). Greater confidence in reporting the most severe cases of physical maltreatment (Wissow & Wilson, 1992) may translate into only the more extreme cases coming to the attention of protective services. In the midst of substantial evidence abuse is grossly underreported (Sedlak & Broadhurst, 1996), parental aggression toward children represents a critical public health concern. The development of innovative instruments to assess factors predictive of parent-child aggression is therefore essential for prevention/intervention efforts. The current investigation evaluates one such new instrument to gauge the extent to which an individual finds parent-child aggression acceptable.

Methodological issues

A frequently cited limitation in child abuse research is the tendency of many research designs to directly request information from participants with questionnaires, often even in the absence of protections of anonymity. Such direct self-report can be conceptualized as an *explicit* assessment of a construct; with such an approach, the more sensitive the construct of interest, the more likely it can be misrepresented using explicit self-report (Fazio & Olson, 2003). Although the limitations of self-report biases detract from research broadly, the predominant use of this strategy is especially troublesome in child abuse research (DeGarmo, Reid, & Knutson, 2006).

Parents' fear of potentially negative consequences from honestly reporting their attitudes and behaviors can lead to inaccuracy (Bennett, Sullivan, & Lewis, 2006). Individuals may represent themselves, intentionally or subconsciously, in a favorable or socially desirable manner. Certainly individuals already identified as physically abusive are likely to provide socially acceptable responses. However, reliance on self-report to assess risk for abuse and its predictors continues, in part due to the absence of readily available alternatives to assess pivotal constructs of interests.

In contrast, analog tasks are designed to capture information about a construct via *implicit* means, minimizing response bias (Fazio & Olson, 2003). In other words, analog tasks assess the construct of interest while the participant is not explicitly aware of the intent of the task and/or how it is measured or scored. Conceptually, analog tasks vary in the extent to which a participant is consciously aware of what is being assessed (Fazio & Olson, 2003), essentially operating on a continuum with regard to the degree to which automatic, unconscious processing is tapped. The more conscious the level of processing posed in the task, the greater the risk the participant could misrepresent the construct. If an analog task is relatively direct (explicit), the participant may deduce the intent or design of the task, leading to relatively high correlations with self-reports of the same construct. In contrast, indirect analogs typically attempt to minimize the level of conscious processing of a response from a participant in an effort to assess true attitudes. More implicit analog tasks involve less conscious processing, typically yielding lower correlations with self-reports of the same construct than more explicit assessments (Fazio & Olson, 2003). Although analog tasks can be labor-intensive or costly, analog strategies provide an important complement to self-report and observational data in creating models to assess risk for abuse (DeGarmo et al., 2006).

Few analog tasks are available in the field of child maltreatment. As some examples, early research used experimental analogs of parents' punitive discipline responses to correct children's mistakes, successfully creating an analog to demonstrate that punitive punishment was increased under conditions of stress (Passman & Mulhern, 1977). Another more recent analog task, designed to study coercive parenting behavior, used a video to display child misbehaviors. Participants indicated in real time what their discipline response would be continuously through the video (Fagot, 1992). Responses in this moderately explicit task were mildly to moderately associated with self-reported discipline practices (.25–.53; Fagot, 1992). The Analog Parenting Task (APT) presents slides of child misbehaviors for which participants select an initial disciplinary response and a subsequent response should the child persist in the behavior (Bower-Russa, 2005, Knutson and Bower, 1994 and Zaidi et al., 1989). Although respondents on the APT provide direct responses about physical discipline use (a more explicit assessment), they are somewhat less likely to realize they are also being scored for escalation of their discipline responses.

Although such analog tasks have proven useful in assessing disciplinary responding, the assessment of disciplinary attitudes, which appear to play a role in risk for abuse, continues to be limited by self-report (Milner, 2000). The purpose of the present investigation was to develop an analog task to assess perceived acceptability of parent-child aggression, a construct linked to risk for abuse that is likely to be particularly susceptible to socially desirable responding.

Conceptual, definitional, and theoretical issues

Physical discipline, also referred to as corporal punishment, can be defined as “the use of physical force with the intention of causing a child to experience pain, but not injury, for the purpose of correction or control of the child's behavior” (Straus, 2000, p. 1110). Child physical abuse is officially identified as “physical acts that caused or could have caused physical injury to a child” (DHHS, 2008, Appendix B). The controversy over the distinction between physical discipline and abuse is long-standing (Benjet and Kazdin, 2003 and Gershoff, 2002b). Some argue that “normative” corporal punishment should be distinguished from harsh or abusive physical punishment (Baumrind, Larzelere, & Cowan, 2002), which suggests that corporal punishment, inclusive of spanking, is qualitatively different from physical abuse. A distinction is thus made between non-injurious spanking versus “abusive corporal punishment” (p. 581) or harsh, punitive corporal punishment that exceeds mild to moderate spanking (Baumrind et al., 2002). Such a stance implies that the strong association between corporal punishment and physical abuse (e.g., Gershoff, 2002a) may be spurious rather than causal (Baumrind et al., 2002), and that such physical disciplinary practices are appropriate in certain contexts (Baumrind, 1996).

However, we adopt the position of other researchers who have posited that parent-child aggression is best understood along a physical discipline-child abuse continuum, with physical abuse differing from physical discipline largely in the degree of severity (e.g., Graziano, 1994, Greenwald et al., 1997, Rodriguez and Richardson, 2007, Straus, 2001a, Straus, 2001b and Whipple and Richey, 1997). In support of this view, abusive parents regularly engage in excessive, harsh physical discipline toward their children (Veltkamp & Miller, 1994), and physical abuse often arises in the context of escalated physical discipline (Herrenkohl et al., 1983 and Whipple and Richey, 1997). Indeed, interviews of abusive parents have revealed most abusive events emerged when initial efforts to manage child behavior were unsuccessful and physical discipline subsequently escalated (Kadushin & Martin, 1981). This continuum conceptualization implies even forms of physical discipline considered acceptable, like spanking, could escalate past a critical point further along the continuum to become abusive corporal punishment. Thus, in developing this instrument, we focused on assessing attitudes toward PCA including the continuum of behaviors from physical discipline ranging to abuse.

A related construct, child abuse potential (Milner, 1994) can be conceptualized as an estimate of the likelihood an individual's disciplinary responding will escalate and cross into the child abuse realm of this continuum. Child abuse potential has been associated with harsh parenting style (Haskett, Scott, & Fann, 1995) and approval of corporal punishment in parents who experience greater stress (Crouch & Behl, 2001). As a consequence, during parent-child disciplinary encounters, parents who approve of and employ physical discipline must carefully regulate the administration of such strategies if they are to avoid unintentionally escalating to abuse. As yet no research addresses whether those at elevated risk for abuse view physical discipline as distinct from abuse. If at-risk parents view physical discipline and abuse as qualitatively distinct, they may be less vigilant regarding their use of physical discipline, and thus more likely to inadvertently become abusive when a discipline situation escalates.

Parents with elevated child abuse potential may undergo cognitive processes that impair their ability to monitor their use of physical discipline (Milner, 2000). The Social Information Processing (SIP) theory of physical child abuse (Milner, 2000) postulates parents engage in a series of cognitive-behavioral processes which lead to physically abusive behavior. According to SIP theory, parents arrive at a potential disciplinary situation with pre-existing cognitive schema, including beliefs about the acceptability of physical discipline. Parents who approve of more severe forms of discipline would theoretically be at higher risk to become physically abusive during a parent-child disciplinary exchange.

Although some data are consistent with this notion (Bower-Russa, 2005), other studies have found no difference between abusive parents and non-abusive parents on their acceptance of spanking (Kelley et al., 1990 and Trickett and Susman, 1988). Small sample sizes may account for some of these contradictory findings, but a tendency for studies to depend upon self-reported attitudes toward physical discipline may represent a more significant methodological drawback. Studies have also relied on samples of parents already identified as physically abusive who are particularly likely to provide socially acceptable responses on explicit self-report measures, compromising our ability to appreciate the true role of acceptability of parent child aggression in perpetuating physical abuse (Milner, 2000).

Purpose of current investigation and hypotheses

The current investigation describes the development and evaluation of a new analog task, the Parent-Child Aggression Acceptability Movie Task (P-CAAM Task), created to assess respondents' acceptance of parent-child aggression, including both physical discipline and physical abuse. To evaluate the construct validity of this task, analog scores were compared to scores on measures that explicitly assess self-reported acceptance of physical discipline as well as measures of child abuse potential and harsh parenting style. Because it provides a less direct (more implicit) means of assessing acceptability of PCA, scores on the new P-CAAM Task were expected to show modest correlations with these more explicit measures. We also expected moderate correlations with the Analog Parent Task, an analog task of disciplinary responding, consistent with past research indicating a correlation between disciplinary beliefs and responses on this task (e.g., Bower-Russa, 2005 and Bower-Russa et al., 2001). Given that acceptability of PCA should theoretically increase one's risk to become abusive (Milner, 2000), scores on the P-CAAM Task were expected to be modestly correlated with both measures of child abuse potential and the harsh parenting style that has been associated with abuse potential (e.g., Haskett et al., 1995).

Additionally, this investigation considered whether participants at higher versus lower abuse risk differentiate between physical discipline and physical abuse on the P-CAAM Task. Although many researchers view physical abuse as a severe variant of physical discipline, it is unclear to what extent those at risk for abuse distinguish physical discipline from abuse. The inclination to differentiate physical discipline from abuse could ultimately exacerbate risk for child abuse because those who believe they are different may be less vigilant regarding their use of physical discipline and thus be more likely to unintentionally escalate. Hence, the current study conducted

within-subjects comparisons to clarify whether physical discipline is distinguished from physical abuse on the P-CAAM Task in subgroups at higher risk.

Study 1 (Student pilot)—Methods

Measures

The *Attitudes Toward Spanking (ATS)* (Holden, 2001) is a 10-item measure of self-reported attitudes toward physical discipline, with some items negatively phrased to manage the issue of response set. Using a 7-point Likert scale, participants indicate the extent to which they agree with the use of physical discipline. High internal consistency (ranging from .89 to .91) and stability of scores over 3 weeks (.76) have been reported (Holden, 2001). For this sample, internal consistency of the ATS was high, at .93. High scores on the ATS are positively correlated with parent weekly reports of spanking ($r = .73$) and use of physical discipline (Ateah and Durrant, 2005 and Holden, 2001). Scores have shown predictive validity, predicting use of physical punishment in a sample of mothers of 3 year old children (Ateah & Durrant, 2005).

The *Adult-Adolescent Parenting Inventory-2 (AAPI-2)* was designed as a self-report measure of parenting and child-rearing attitudes consistent with abusive and neglectful parenting (Bavolek & Keene, 2001). Appropriate for both adults and adolescents, this 40-item measure has been conceptualized as a measure of beliefs associated with child abuse potential (Conners, Whiteside-Mansell, Deere, Ledet, & Edwards, 2006) and has been utilized to assess change in at-risk parents in home visiting programs (e.g., Barnett, Liu, DeVoe, Alperovitz-Bichell, & Duggan, 2007). Using a 5-point Likert scale, participants indicate their level of agreement with items on 5 subscales: Inappropriate Expectations, Lack of Empathy, Value of Corporal Punishment, Role Reversal, and Oppressing Power and Independence. Scoring on the AAPI-2 is oriented such that high scores suggest low risk attitudes whereas low scores imply greater child abuse potential. A recent examination of the psychometrics of the AAPI-2 (Conners et al., 2006) using a sample of low-income parents of preschool children yielded acceptable internal consistency for the full score ($\alpha = .85$), which was replicated in subsequent research ($\alpha = .91$; Kiang, Moreno, & Robinson, 2004). In this pilot study, internal consistency of the AAPI-2 was .87. With regard to content validity, scores are correlated with The Parenting Discipline Methods Interview (Baydar, Reid, & Webster-Stratton, 2003) which assesses caregiver disciplinary responses to child behaviors.

The *Analog Parenting Task (APT)* (Zaidi et al., 1989) is an analog task intended to assess disciplinary practices. In contrast to hypothetical written vignettes (cf. Holden et al., 1999 and Montes et al., 2001), the original APT displayed 26 slides; these pictures depicted children engaging in behaviors ranging from innocuous control behaviors (5 images) to rule violation, dangerous, and destructive behaviors (7 images of each category). Instead of the slide administration of the APT utilized in past research (e.g., Knutson and Bower, 1994 and Knutson et al., 2004), the current study displayed these same images by computer. For each full screen image, the respondent indicated what their initial disciplinary response would be to the child behavior and was subsequently asked to indicate what his or her next response would be if the child persisted in the behavior despite their initial intervention efforts. The participant is

provided with disciplinary options that range from ignoring and verbal reprimands to potentially abusive discipline, such as striking with objects. A Total Physical Discipline score indicates a respondent's expected use of physical discipline either initially or if the child persists in the behavior. Escalation scores indicate the respondent's planned escalation from nonverbal to physical strategies (if the child persisted in the behavior despite initial intervention). In this analog task, although participants self-report their disciplinary approach (an explicit assessment), they are less likely to realize escalation is being monitored as well (a more implicit assessment). Internal consistency in this study for Physical Discipline was high, at .91, while consistency for Escalation was .77 across the 3 types of problem child behaviors. Previous research with the APT supports construct validity, correlating with measures of disciplinary attitudes and measures designed to assess abuse potential (Russa & Rodriguez, 2010). Research with the APT has produced results consistent with established transgenerational patterns of abuse: persons with more punitive disciplinary histories are more likely to endorse physical disciplinary responses and to escalate to physical responses when confronted with noncompliance (Knutson and Bower, 1994 and Zaidi et al., 1989). High risk disciplinary attitudes have been associated with increased selection of potentially injurious disciplinary responses on the APT (Bower-Russa, 2005 and Bower-Russa et al., 2001).

P-CAAM Task Instrument development

The intent was to create an engaging analog task which could be used to assess disciplinary attitudes in a manner less susceptible to social desirability than standard self-report. Because parent-child exchanges are influenced by numerous factors, such as participant age and gender, and child behaviors are more naturally presented visually than in written form, a series of visual stimuli were identified to which participants would respond. Films were selected rather than still images to capture a more dynamic interplay that more vividly sets a context for the parent-child exchanges, and commercial films are less contrived than laboratory-created videos. Numerous commercially available films depicting parent-child relationships were screened to identify segments that could be used for measure construction. Based on this experience and careful consideration, 90 seconds appeared sufficient time to present a brief context for the exchange that led to PCA. These 90 seconds needed to flow logically enough that the participant/observer could reasonably track the events in the scene. Thus, clips were selected for inclusion if a 90-second segment could be identified that demonstrated parent physical aggression toward the child (either discipline or abuse) in a scene that was relatively continuous, occurred early enough in the scene without switching to a different event, and depicted the target caregiver and child throughout the segment.

To generate a score that would reflect acceptability of PCA, participants are asked, based solely on the scene they are viewing, to stop the video if and when they consider the scene in question to have become abusive. Participants are instructed that, even if they are familiar with the movie, they should focus on making a decision on the point in the particular scene when they may judge the scene to have become abusive. If the participant does not pause the video clip at any point, the entire 90 seconds are presented. The implicitly assessed scores of interest are the amount of time lapsed from initial physical contact between the depicted caregiver and child until the

participant stops the movie. A P-CAAM Task Total score is derived from the mean delay across film clips. Slower response time in judging a scene as abusive was therefore conceptualized as indicating greater acceptability of PCA. This score should be less influenced by socially desirable responding than explicit self-report, as respondents are not likely to recognize that latency is the critical component of interest, not simply a judgment regarding abusiveness. Although this task requires an overt participant response, time spent gauging what would be a socially appropriate response requires conscious processing, and such processing compromises response time, resulting in delays not evident when a scene is automatically judged as unacceptable.

To initially evaluate the feasibility and potential of the task, 4 movie clips depicting a range of physically aggressive parent behaviors (both physical discipline and physical abuse) were selected. Six social workers with expertise in child abuse were asked to anonymously and independently confirm the categorization of the scenes as depicting either acts of abuse (3 video clips) or physical discipline (1 video clip); they were asked to indicate whether they considered the behavior of the parent in the clip, in their professional opinion, to be physically abusive to warrant investigation. These clips were then trialed with 52 undergraduate students with a variety of majors at a Mountain West university who participated in the study in return for research participation credits for a course in education or freshman learning skills. Across the 4 video clips, the P-CAAM Task Total score of mean delays was significantly correlated with the AAPI-2 Total score ($r = -.34, p \leq .01$), although not with the self-reported acceptance of discipline scores on the ATS ($r = .16, p > .05$). Given this preliminary indication a non-self-report task might gauge acceptability of PCA, the P-CAAM Task was expanded and piloted with a different sample of undergraduate students at a different university.

To more comprehensively capture the domain of PCA, additional films were screened to identify more clips of PCA (particularly to supplement physical discipline as well as abuse), resulting in the current P-CAAM Task of 8 randomly ordered 90-sec clips. Segments for P-CAAM Abuse include: "This Boy's Life" (an abuse segment of a father figure punching and kicking his adolescent son with no clear transgression precipitating the aggression); "Divine Secrets of the Yaya Sisterhood" (a mother whipping her school age children with a belt with no clear transgression from the children); "Bastard Out of Carolina" (a father belting his elementary aged daughter following her back-talk); "Before Women Had Wings" (a mother hitting her adolescent daughter with a brush when the daughter returns home late); and "Shine" (a father beating his adolescent son with his fists for no clear transgression). Physical discipline segments were drawn from the following: "Good Night Mr. Tom" (a scene involving a mother slapping the hand of her elementary aged boy with no clear transgression); "Mommie Dearest" (a scene involving a mother spanking her elementary aged daughter with an open hand twice); and "Joe the King" (a father slapping the back of the head of his elementary-aged son after learning his son was fighting in school). All scenes are filmed from the camera perspective of an observer, and the clips are presented in random order. The categorization into physical abuse versus discipline was anonymously and individually confirmed by 10 new social workers with expertise in child abuse reporting. Scores include the P-CAAM Task Total score, the mean delay across all 8 videos, as

well as P-CAAM Physical Discipline latency to the 3 physical discipline-only scenes, and P-CAAM Abuse for the 5 physical abuse scenes.

Participants

This pilot sample consisted of 147 undergraduate psychology students at a Midwestern university who participated in the study in exchange for research participation course credit. Participants' mean age was 18.91 years ($SD = 2.35$), with the sample consisting of primarily female students (71.4%) with no children (96.6%) who were not currently living with a partner (95.2%). The majority of participants identified themselves as White, non-Hispanic (83.7%), with a small percentage of the population identified as Asian (4.9%), African American (5.5%), or Hispanic (3.3%). The remainder were Native American, Black Hispanic, or Other. These demographics were consistent with the population from which the sample was drawn.

Procedures

Institutional Review Board approval was obtained from the university. Participants initially provided informed consent and were then directed to individual computer stations. The computers presented the eight randomly ordered P-CAAM Task clips first, followed by demographics questions, APT, ATS, and AAPI-2. The entire protocol required 45–60 min. Data were collected anonymously and downloaded directly into a database, coded solely by random identification numbers which were never connected to participants' personal identities.

Study 1 (Student pilot)—Results and Discussion

Results from this sample support acceptable internal consistency for the delay scores of the eight movie video clips comprising the P-CAAM Task Total score ($\alpha = .77$). Mean latency scores on the P-CAAM Task appear in Table 1. In general, across abuse videos, approximately 3% of participants did not stop one of the clips whereas 24% did not pause a discipline segment. Physical Discipline and Escalation scores on the APT analog measure, which asks explicitly about discipline intentions, significantly correlated with the AAPI Total at $-.50$ and $-.47$, respectively, and with the ATS Total at $.63$ and $.59$, respectively. With regard to the P-CAAM Task correlations, as shown in Table 1, the mean delay scores of the P-CAAM Task Total were significantly associated with ATS and AAPI-2 scores such that greater delay on the P-CAAM Task was associated with increased approval of physical discipline and increased abuse potential on the self-report instruments. Response times on the P-CAAM Task were also associated with scores on the APT, both in terms of use of physical discipline and in escalation from non-physical to physical discipline strategies. Specifically, as expected, slower response times on the P-CAAM Task were associated with more high risk APT disciplinary strategies.

Table 1. Means, standard deviations, and correlations for Studies 1 and 2.

	<i>M (SD)</i> (sec)	ATS Total	AAPI- 2 ^a Total	APT Total Physical	APT Escalation	CAPI Abuse Scale	Parenting Overreact
<i>Study 1 (n = 147)</i>							
P-CAAM Total	21.14 (10.83)	.43***	-.33***	.26***	.29***		
P-CAAM Discipline	24.80 (16.10)	.44***	-.27***	.26***	.30***		
P-CAAM Abuse	18.94 (9.78)	.33***	-.31***	.21**	.21**		
Mean (<i>SD</i>)		37.73 (15.10)	142.54 (16.75)	3.30 (5.15)	2.19 (3.29)		
<i>Study 2 (n = 70)</i>							
P-CAAM Total	14.47 (10.17)	.30**	-.51***			.30**	.34**
P-CAAM Discipline	16.58 (16.05)	.26*	-.47***			.27*	.32**
P-CAAM Abuse	13.40 (8.15)	.30**	-.46***			.27*	.28*
Mean (<i>SD</i>)		27.73 (12.69)	159.78 (13.05)			77.33 (70.91)	2.98 (.79)

Note: ATS = Attitudes toward Spanking; AAPI-2 = Adult-Adolescent Parenting Inventory-2; APT = Analog Parenting Task (Physical Discipline Total and Non-Physical to Physical Discipline Escalation); CAPI = Child Abuse Potential Inventory; Parenting Overreact = Parenting Scale Overreactivity Subscale; P-CAAM = Parent-Child Aggression Acceptability Movie Task (Total scores, Physical Discipline Only scores, Abuse Only scores).

* $p \leq .05$.

** $p \leq .01$.

*** $p \leq .001$.

^a High AAPI-2 scores indicative of lower abuse risk

To evaluate whether respondents at higher versus lower risk for abuse perpetration distinguish discipline from abuse on the P-CAAM Task, the participants were divided into two groups based on scores from the AAPI-2 Total, the measure of child abuse risk appropriate for non-parent populations. Given the likely low-risk status of the sample and the sample size, we were able to select subsamples comprised of the upper quartile and lower quartile on the AAPI-2 Total score (37 participants in each subsample). As seen in Table 2, for the Lower Abuse Risk subsample (higher AAPI-2 Total scorers), delay scores on the P-CAAM Abuse videos were not significantly

different from delay scores on the P-CAAM Physical Discipline videos. For the Higher Abuse Risk subsample (lower AAPI-2 Total scorers), delay scores on the P-CAAM Physical Discipline videos were significantly longer than the Abuse videos. Thus, the Higher Abuse Risk group was significantly more tolerant of the discipline scenes than the abuse scenes. Consistent with the correlational results, the Lower Abuse Risk subsample also scored significantly lower on the P-CAAM Abuse and Discipline scores than the Higher Abuse Risk subsample (see Table 2). Overall, correlational results from this study indicate participants at higher risk for child abuse had a slower response time to PCA scenes (i.e., greater acceptance) than lower risk respondents, and higher risk participants reacted more quickly to abuse scenes than they did to discipline scenes. Given the results with a non-parent college population, the P-CAAM Task was then piloted with a theoretically more relevant sample of parents.

Table 2. Differences Between and Within Risk Groups on P-CAAM Scores for Studies 1 and 2.

	P-CAAM Abuse <i>M (SD)</i>	P-CAAM Discipline <i>M (SD)</i>	Within Ss <i>t</i> -test
<i>Study 1 (n = 147)</i>			
Lower AAPI Scorers (higher risk)	24.03 (9.49)	31.64 (13.61)	-3.54**
Higher AAPI Scorers (lower risk)	14.41 (7.96)	18.17 (16.03)	-1.81
Between Ss <i>t</i> -test	4.73**	3.89**	
<i>Study 2 (n = 70)</i>			
CAPI:			
Higher CAPI Scorers	15.84 (7.36)	21.96 (16.50)	2.16*
Lower CAPI Scorers	12.04 (8.33)	13.59 (15.16)	.91
Between Ss <i>t</i> -test	-1.98 ^a	-2.15*	
AAPI:			
Lower AAPI Scorers (higher risk)	17.30 (5.97)	23.74 (15.28)	-2.71*
Higher AAPI Scorers (lower risk)	10.11 (8.35)	10.54 (14.24)	-.24
Between Ss <i>t</i> -test	4.07**	3.74**	
Overreactivity:			
Higher Overreactivity Scorers	14.98 (7.25)	21.42 (15.34)	-2.63*
Lower Overreactivity Scorers	11.85 (8.61)	12.07 (15.38)	-.12
Between Ss <i>t</i> -test	-1.61	-2.52*	

Note: AAPI = Adult-Adolescent Parenting Inventory-2; CAPI = Child Abuse Potential Inventory; Parenting Overreact = Parenting Scale Overreactivity Subscale; P-CAAM = Parent-Child Aggression Acceptability Movie Task (Physical Discipline Only scores, Abuse Only scores).

* $p < .05$.

** $p < .001$.

^a Marginally significant at $p = .06$.

Study 2 (Parents) – Methods

Participants

This sample included 70 mothers who took part in a larger study targeting mothers of children younger than 12. Parents were recruited for this larger study on parenting attitudes and beliefs from after-school programs and churches in a large Mountain West city. Mothers' mean age was 36.71 years ($SD = 6.59$), with a mean of 3.5 children. With respect to ethnicity, 89.9% self-identified as White, non-Hispanic, 5.8% as Hispanic/Latino, 2.9% as American Indian/Alaskan Native, and 1.4% as Asian, consistent with regional demographics. The majority of mothers were currently living with a partner (91.3%), with a mean combined annual family income of \$71,491 (median of \$60,000, which is likely more representative given outliers).

Measures

The *Attitudes toward Spanking (ATS)* and *Adult-Adolescent Parenting Inventory-2 (AAPI-2)* (see above description in Study 1) were also administered to the community sample of parents. For this current sample, internal consistency of both measures was acceptable, .85 for the ATS and .83 for the AAPI-2. The 8 clips of the *P-CAAM Task* were also administered.

The *Child Abuse Potential Inventory (CAPI)* (Milner, 1986) presents 160 statements to which the parent indicates the extent to which they Agree/Disagree. Designed to screen for physical child abuse risk, the measure evaluates rigidity and intrapersonal and interpersonal characteristics that have been identified in those substantiated for physical abuse. Only 77 items comprise the overall Abuse Scale and its underlying factors, with the remaining statements serving as experimental scales or as measures of distortion biases. Higher scores on the Abuse Scale are considered reflective of greater child abuse potential. Among the validity scales, the Faking-Good Index suggests a respondent is attempting to present themselves in a socially desirable manner, implying that the Abuse Scale would provide a more conservative estimate of their abuse risk. The CAPI has strong psychometric support, wherein previous research has established high internal consistency for the Abuse Scale (Milner, 1986), with split-half reliability ranging from .96 (for control groups) to .98 (for abuse samples), and Kuder-Richardson reliability coefficients ranging from .92 (for control samples) to .95 (for abuse groups). With regard to predictive validity, studies indicate that CAPI scores yield a correct classification rate of 89.2% of confirmed child abusers and 99% of controls (Milner, 1994).

The *Parenting Scale* (Arnold, O'Leary, Wolff, & Acker, 1993) involves 30 items describing typical parent-child conflicts assessing parents' dysfunctional disciplinary style. Parents select their customary responses to described situations utilizing a 7-point scale, with opposing hypothetical parent reactions as anchors to each end of the scale. The Parenting Scale provides a Total score representing overall dysfunctional disciplinary style, with the original factor analysis (Arnold et al., 1993) including 3 separate response styles: Overreactivity (10 items representing a harsh, angry discipline style), Laxness (reflecting a permissive approach to parenting), and Verbosity (in which parents rely on verbal persuasion even when ineffective). For the current study, the Overreactivity subscale was targeted as the most relevant parenting style. Scores are generated by averaging across items, with higher scores reflective of more overreactive parenting

approaches. Internal consistency has been reported for the Overreactivity scale at .82 (Arnold et al., 1993), comparable to coefficients reported in a more recent normative study (Collett, Gimpel, Greenson, & Gunderson, 2001). Test-retest consistency is relatively high for Overreactivity scores at .82, and scores demonstrate significant associations with clinical observations of parent-child interactions (Arnold et al., 1993). In the present sample, internal consistency of the Overreactivity score of the Parenting Scale was .78.

Procedures

The university Institutional Review Board granted approval for the study. Flyers were distributed to after-school programs or posted at churches and participants contacted the research lab if they were interested in scheduling a session. Sessions were conducted in the family home, with all measures administered via a laptop computer. Using computerized administration, all participants were advised responses would be anonymous given that individual responses are entered de-identified into a larger database that cannot be traced to the participant. The P-CAAM Task was first in the protocol, followed by the AAPI-2 and ATS 5 minutes later, then the CAPI and Parenting Scale measures approximately 30 min into the protocol. The larger parenting study involved approximately 90 min to complete, for which mothers were compensated \$30 for their participation.

Study 2 (Parents)—Results and Discussion

The need for covariates in the ensuing analyses was first considered. Parental demographics (e.g., parental age, number of children, children's age, income) were not significantly associated with the outcome measures; the one notable exception was that mean annual family income was significantly associated with scores on the CAPI and Parenting Scale Overreactivity scores and marginally associated with ATS Total scores (notably, income was unrelated to the P-CAAM Task scores); however, controlling for income did not alter the effect of the subsequent analyses. Consequently, the following results are presented without covariates.

Participants who were potentially Faking Good on the CAPI ($M = 12.82, SD = 11.12$) did not obtain significantly different P-CAAM Total delay scores, $t(68) = .54, p > .05$, than those without an elevated Faking Good Index ($M = 14.81, SD = 10.03$). The ATS Total and the AAPI Value of Corporal Punishment Scale, both of which are explicit about attitudes toward physical punishment of children, did evidence differences on the Faking Good Index; those who were Faking Good on the CAPI obtained lower ATS scores ($M = 19.17, SD = 9.21$) relative to those not Faking Good ($M = 29.37, SD = 12.60$), $t(68) = 2.66, p < .05$. Similarly, on the AAPI Value of Corporal Punishment subscale (which inquires about physical punishment attitudes), CAPI Faking Good responders obtained significantly different scores ($M = 48.83, SD = 5.51$) than those who were not Faking Good ($M = 44.45, SD = 6.86$), $t(68) = -2.07, p < .05$. However, on the CAPI, comprised of items that do not explicitly address PCA, those who were Faking Good obtained CAPI Abuse scale scores ($M = 76.25, SD = 61.34$) comparable to those who did not obtain elevated Faking Good Index scores ($M = 72.57, SD = 60.77$), $t(68) = -.19, p > .05$.

In this sample of mothers, the P-CAAM Task evidenced acceptable internal consistency with 8 video clips ($\alpha = .74$). Mean latency scores for this sample can be found in Table 1. All participants in this sample stopped the abuse clips before the 90-sec maximum with the exception of a single participant on 1 abuse video; however, nearly 28% of the time across discipline clips, mothers did not stop the clip before the time limit. As seen in Table 1, the P-CAAM Task Total mean delay scores and total scores on the AAPI-2, CAPI, ATS, and Parenting Scale Overreactivity were significantly correlated. Comparable patterns emerged for the P-CAAM Physical Discipline and P-CAAM Abuse scores. These findings indicate delayed response times were associated with self-reported support for physical discipline (ATS) as well as overreactive discipline approaches and 2 separate measures of child abuse potential.

To determine whether a similar pattern of distinguishing between discipline and abuse scenes emerged in this parent sample, two subgroups were formed. Given the smaller sample size, the group was divided based on median split (see Table 2). Paired sample *t*-tests indicated lower CAPI scorers had comparable delay times for both P-CAAM Physical Discipline clips and Abuse clips. However, higher CAPI scoring mothers had slower reactions to P-CAAM Discipline clips relative to Abuse only video clips. Similar results emerged for subgroupings using median splits on the AAPI and Overreactivity Scale. Thus, these findings parallel those of the pilot with students, with higher risk mothers showing differences in their reaction times to discipline versus abuse scenes. Between group differences based on these median splits (see Table 2) demonstrate a pattern that mirrors the correlations, particularly for P-CAAM Discipline scores.

General discussion

Reliance on self-report measures has been a major obstacle in child abuse research due to the susceptibility of these instruments to socially desirable responding and the tendency for correlations among constructs to be inflated when monomethod approaches are adopted (DeGarmo et al., 2006). More implicit analog methods offer a potentially useful adjunctive approach to assessing constructs and advancing theory in the area of abuse (DeGarmo et al., 2006). The current investigation describes the development and initial validation of a new movie video analog task to assess views regarding the acceptability of physical discipline and abuse. Two independent studies were utilized to evaluate the Parent-Child Aggression Acceptability Movie Task (P-CAAM), which assessed reaction time to scenes of PCA including physical discipline and abuse. In this task, respondents are instructed to stop a movie video clip depicting PCA when they judge the scene to have become abusive. Those who respond more slowly in stopping a clip are considered to be more accepting of the physical aggression. Thus, the task was designed as a means of indirectly and implicitly assessing attitudes toward PCA.

The task was developed and piloted with undergraduate students and then piloted with a community sample of mothers. The P-CAAM Task demonstrated evidence of acceptable internal consistency and construct validity across the studies, yielding correlations of mild to moderate magnitude (Cohen, 1988) with related self-report measures and a relatively explicit analog task (the Analog Parenting Task), as expected given the relatively indirect nature of the P-CAAM Task (Fazio & Olson, 2003). The present data are also consistent with Social Information

Processing theory (Milner, 2000) and research demonstrating acceptance of high risk physical disciplinary practices mediates risk for abuse perpetration (Bower-Russa, 2005).

The pilot study with undergraduate students provided preliminary evidence for convergent validity of this new analog task. As expected, individuals who terminated the videos more slowly were at higher risk for physical abuse on a self-report measure of child abuse potential appropriate for adolescents. Additionally, those who were slower to halt the video clips showed greater acceptance of physical punishment and were more likely to use physical discipline and to escalate to physical discipline on an analog parenting task. To demonstrate validity in a parent pilot sample, the task was administered to a community sample of mothers. The patterns in this study mirrored those in the previous pilot, providing additional support for the validity of the P-CAAM. Mothers who demonstrated greater response latency across the eight video clips reported greater support for physical punishment strategies and an increased tendency to use overreactive disciplinary strategies. As expected, mothers who responded more slowly to the P-CAAM Task showed increased child abuse potential on two separate self-report measures. The Adult-Adolescent Parenting Inventory-2, which includes explicit questions regarding approval of corporal punishment, demonstrated correlations of greater magnitude with the P-CAAM Task relative to the correlations with the CAPI Abuse scale (which does not explicitly tap acceptance of physical discipline). The fact that the P-CAAM Task significantly correlated with two such different measures of abuse potential is particularly informative.

Collectively, these studies provide preliminary support for the construct validity of the P-CAAM Task as an instrument to assess acceptability of parent-child aggression. The P-CAAM Task demonstrated the expected mild to moderate correlations with related constructs including disciplinary attitudes, disciplinary responding, harsh parenting style, and child abuse potential. Notably, the pattern of relations were largely consistent across studies that included both undergraduate and community parent samples. Interestingly, the parents displayed considerably shorter latencies relative to the undergraduate samples (see Table 1), suggesting possible differences in acceptability of PCA between parent and pre-parent populations. Potentially, pre-parent populations are more tolerant of PCA that is more abstract to them and requires greater conjecture than their personal experience would permit, in contrast to the more personalized experience of parents.

Although physical abuse is often conceptualized as an extreme variant of physical discipline (e.g., Straus, 2001a, Straus, 2001b and Whipple and Richey, 1997), it is unclear whether those at risk for abuse perpetration distinguish physical discipline from physical abuse. To explore this issue, in both the undergraduate sample and the sample of mothers, reaction to abuse and discipline clips respectively were compared. Individuals with lower child abuse potential made minimal distinction between discipline and abuse scenes, reacting relatively quickly to terminate all PCA scenes. In contrast, those at higher risk for abuse did appear to differentiate, reacting significantly more quickly to abuse scenes than to discipline scenes.

Although the processes underlying these differences in response latencies were not explicitly explored in the present study, this response pattern is consistent with the possibility high risk participants may cognitively process PCA scenes differently than low-risk individuals. For example, if higher risk individuals view abuse as qualitatively distinct from discipline, as their

reaction times suggest, they might be less likely to recognize that, under certain circumstances, “acceptable” physical discipline (such as spanking) can escalate to become abusive. In addition to showing higher risk attitudes regarding physical discipline (greater acceptance), this high risk group appears to require longer to respond to all episodes of PCA. This combination of more acceptance of PCA, the tendency to see physical discipline and abuse as distinct, and a possibly increased cognitive processing time may decrease the likelihood that these individuals will be able to adequately and sufficiently quickly monitor a disciplinary situation to prevent escalation to abuse. Beyond the pre-existing schema of acceptability of PCA in Social Information Processing theory, the final cognitive-behavioral stage proposes that a parent's inability to monitor and regulate the implementation of discipline may result in abuse (Milner, 2000). Given the present findings, during this final stage, at-risk parents seem likely to react more slowly in recognizing when a discipline encounter is escalating out of control because they began with a discipline approach they had judged as acceptable and distinct from abuse. If in fact those at higher abuse risk do not react quickly in the moment to halt a situation they previously judged as acceptable and not abusive, they may fail to recognize when a situation is intensifying and inadvertently transgress into an abusive situation. Understanding processes whereby parents may unintentionally become abusive offers fertile ground for further research.

This investigation provided preliminary evidence for the validity of the P-CAAM Task in low-risk samples, including a non-parent sample of college students and a sample of parents who agreed to participate in a research study in return for compensation. It is particularly important for future research to extend these findings by administering the task to at-risk and identified abusive samples. Although it is critical to study those engaged in sub-abusive discipline to better appreciate how such PCA becomes abusive (Graziano, 1994), it appears that those at higher abuse risk may react differently to varying levels of PCA. With the current results suggesting acceptability of PCA can be tapped via analog means, research samples utilizing more representative and clinical samples would be informative. In fact, these patterns might be more pronounced with at-risk samples given the truncated range of risk evident from this normative sample of mothers. Research on the P-CAAM Task is also needed with parents of greater racial/ethnic and socioeconomic diversity, as the present samples were notably limited in demographic diversity. Although no gender differences in response latencies were identified in the undergraduate sample (data not shown), it would also be particularly important to study acceptability of PCA among fathers.

Research in the future could consider additional expansions or adjustments to the P-CAAM Task. For example, unfortunately all of the segments in the current version of the P-CAAM depict White parents and children. Although Blacks are notably underrepresented in the film industry (Lambert, 1995), the P-CAAM Task would optimally include ethnic/racial diversity in the actors performing in the film clips. Furthermore, it would be enlightening to include videos that may vary on other dimensions such as the perceived intentionality of child misbehavior preceding the aggressive parental response, as well as to consider whether participant familiarity with the films from which the clips are drawn influences responding. This initial effort to assess validity compared the P-CAAM Task to several self-report measures commonly used to assess disciplinary beliefs and related constructs such as child abuse potential. The P-CAAM was compared to one analog measure of disciplinary responding for which spurious correlation due to

shared method variance would be reduced. However, future research utilizing other analog and self-report approaches, along with administration to differing risk samples, would further bolster this preliminary evidence for the validity of the P-CAAM Task.

As noted earlier, analog tasks are intended to minimize explicit processing by disguising the construct of interest or how it is scored. This may be especially important in child abuse research (DeGarmo et al., 2006), where explicitly assessed, self-reported attitudes can be altered on the surface (Wilson, Lindsey, & Schooler, 2000) and hence, may not provide a “true” picture of one’s attitudes (Fazio & Olson, 2003). Establishing a criterion for definitively judging whether an analog task is actually capturing the “real” attitude, (possibly) known only to the respondent, is unlikely. However, to the extent that conscious processing and awareness of a task can be reduced, concerns regarding concomitant social desirability and misrepresentation can be minimized. Thus, analog tasks, that more readily tap implicit attitudes, might provide an optimal approach to elucidate whether attitudes have in fact been modified by intervention.

Experimental analogs represent an emerging assessment strategy that can serve as potentially powerful investigatory tools in research as adjuncts or substitutes for conventional direct, explicit approaches. Without such alternatives, the field of child maltreatment research on theory and intervention is hampered by doubts about whether we are accurately gauging the phenomena and constructs in which we are most interested. By developing an arsenal of analog strategies to supplement traditional self-report, we can potentially more powerfully test concepts in theoretical models to better evaluate their actual contribution to child abuse risk. Moreover, it may be possible to reconfigure some analog tasks for clinical use such that practitioners could administer a range of tasks and questionnaires to more confidently identify and tailor target areas for interventions with individuals.

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