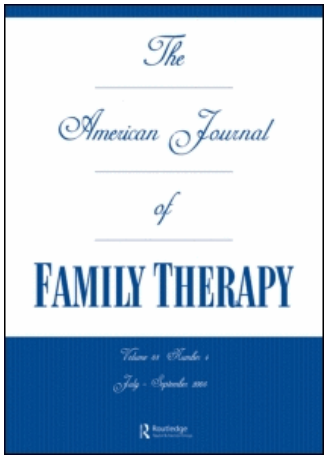

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The Penile Plethysmograph, Abel Assessment for Sexual Interest, and MSI-II: Are They Speaking the Same Language?

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The assessment of sexual arousal, sexual interest, and cognitive distortion patterns in men accused of child molestation are significant elements in the detection and treatment of child sexual abuse perpetration. This study investigated chiefly whether there was a relationship between sexual interest (utilizing psychosexual measures—Abel Assessment for Sexual Interest and Multiphasic Sex Inventory-II), and sexual arousal (utilizing a psychophysiological device called the Penile Plethysmograph) in an outpatient sample of men, all of whom were accused of incest within divorces and/or child custody battles. Fifty three participants, all of whom were involved in civil and/or criminal litigation at the time they retained this researcher to consult on their legal cases, voluntarily underwent Penile Plethysmograph, Abel Assessment for Sexual Interest, and Multiphasic Sex Inventory-II testing under the direction and supervision of a clinical psychologist and board certified behavioral analyst. Results indicated that a strong correlation existed between the Abel Screen VRT and Penile Plethysmograph, Abel Questionnaire for Men and Penile Plethysmograph, and the Multiphasic Sex Inventory-II and Penile Plethysmograph, and that sexual interest, cognitive distortions, and sexual arousal were all linked to a high degree. The present within-subject, validation research study lends further credibility to the use of the Abel Assessment for Sexual Interest and Multiphasic Sex Inventory-II as possible replacement measures for the more controversial phallometric procedure—the Penile Plethysmograph.

INTRODUCTION

According to Hanson and Bussière (1996, 1998), measuring an accused child molester's level of sexual functioning by both psychophysiological and

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psychosexual means is the first and most important step to proper diagnosis and treatment. Hanson and Bussiere's (1998) seminal meta-analytic study published in the *Journal of Consulting and Clinical Psychology*, whereby they reviewed 61 studies covering over 23,000 sex offender cases, found that an individual is more likely to act in a sexual manner with a person (child or adult) when he is first sexually aroused or interested in that person. Assessing an accused pedophile's level of arousal and interest to sexual stimuli is important for several reasons. It allows for treatment to focus on deviant sexual arousal and behavior, and therefore maximizes treatment effectiveness; it clarifies, for the accused and the treatment team, the individual's deviant behavioral patterns, and it allows for the person to eradicate his level of denial (Rowland, 2004). Pedophiles try to justify their abusive actions and conceal their behavior by exhibiting elevated cognitive distortions, while also displaying antisocial personality behavior and poor impulse control (Rowland, 2004).

Significantly, over the past 20-odd years, there has been an alarming increase in the number of unfounded and false child sexual abuse allegations made within contested divorces, visitation disputes, and custody battles (Blush & Ross, 1987; Gardner, 1998; Tong, 2002). Although no true count of the number of false allegations that are made each year exists, some estimates have been made and are quite thought-provoking. According to the published reports of Child Maltreatment 2004 (http://www.acf.hhs.gov/programs/cb/pubs/cm04/chaptertwo.htm#investigate), of the approximate 3 million reports of child abuse in the United States in 2004, 60.7% of the same were unsubstantiated. Of those, approximately 10%, or 300,000 were alleged sexual child abuse reports, suggesting approximately 180,000 of the same were unsubstantiated. Serious emotional and psychological consequences remain for the impacted non-abused children who are treated as genuine victims of abuse (Hickman & Reynolds, 1994. Summers & Summers, 2006). Non-abused children who are forced into unnecessary sexual abuse therapy can suffer regressive behaviors such as enuresis, encopresis, and nightmares; PTSD is also a problem (Hickman & Reynolds, 1994). Civil and criminal investigations for alleged child sexual assault can be traumatizing to alleged child victims (Hickman & Reynolds, 1994; Summers & Summers, 2006). Such events are not benign or innocuous (Wexler, 1995, 1995; Summers & Summers, 2006).

Regardless of the problem of unreliable eyewitness evidence from children (largely caused by inadequate education and training among child protection interviewers, including the use of leading interview techniques), there is always a need for more persuasive evidence in the courtroom to corroborate or impeach allegations of child sexual abuse. One method of adding weight to a child's testimony is to conduct an objective psychosexual assessment of an alleged offender, and determining his level of sexual arousal and interest to child versus consensual adult stimuli.

THE SIGNIFICANCE OF SEXUAL AROUSAL

It is well documented that there is a strong relationship between an individual's level of sexual arousal and the probability he may or will act upon that pattern of sexual interest (Hanson & Bussiere, 1996, 1998). The scientific literature supports the finding that an individual is more likely to act in a sexual manner with a child or adult when s/he is first sexually aroused or interested in that person (Hanson & Bussiere, 1998). In other words, according to Hanson and Bussiere's meta-analytic study, sexual arousal or interest precedes the act of sexual abuse.

The sexual preference hypothesis authored by Freund and Blanchard (1989) examined penile tumescence (blood flow engorgement) measurement by Penile Plethysmography (PPG). This hypothesis states that men who engage in sexually deviant acts are thought to prefer deviant behavior and their associated stimuli over those stimuli which are normalized or socially acceptable (Murphy & Barbaree, 1988). Arousal to deviant stimuli is taken to be an indication of a preference for deviant sexual acts, whether or not sexual acts were ever committed. Sexual preference or arousal in children, according to psychologists Hanson and Bussiere, was the most important criterion in determining sexual deviancy.

The current study under examination is important as validation research in cases where men are accused of incest within contested divorces, visitation disputes, and custody battles. Its primary focus is to examine the relationship, if any, between sexual arousal/interest and the act of sexual abuse and attempts to dispel the argument that the two are unrelated (Sachsenmaier, 2005). Further, it attempts to reason why a specific battery of psychophysiological and psychosexual tests are employed to assess accused incest offenders.

This study examines the association, if any, between assessment measures and whether a less invasive and less dehumanizing test, the Abel Assessment for Sexual Interest (AASI), is as reliable and valid as its predecessor, the Penile Plethysmograph. The current study investigates the correlation, if any, between four objective measures of sexual deviancy, namely, the Penile Plethysmograph, Abel Screen VRT (Visual Reaction Time), Abel Questionnaire for Men, and MSI-II in a random sample of men accused of incest in the context of contested divorces and child custody battles. For purposes of measuring sexual arousal versus sexual interest and determining whether or not the two constructs are linked, the findings from this study could be persuasive and lead to further research.

SEXUAL AROUSAL AND THE PPG

The assessment of male sexual arousal was first conducted by Freund (1963), using an instrument which recorded changes in penile volume (phallometry).

In the study, Freund was able to correctly classify subjects according to their stated sexual preferences by measuring changes in penile volume in response to stimuli depicting male and female adults versus male and female children. Different types of penile circumference gauges (plethysmography) were developed and tested by other researchers (Barlow, Becker, Leitenberg, & Agras, 1970).

The PPG, when administered properly, represents a direct and objective measurement of a man's level of sexual arousal to normal versus sexualized stimuli. Since there is a strong relationship between an individual's pattern of sexual arousal and the probability that he may or will act upon that arousal, an important first step in gauging one's propensity to sexual deviancy is to obtain an accurate assessment of that person's sexual arousal patterns, which is precisely what the PPG does.

According to Abel (2005) and the Association for the Treatment of Sexual Abusers (ATSA), the PPG possesses good internal reliability. Cronbach's alpha, or the internal consistency of tumescence response for each of the stimulus categories for the ATSA audiotapes were: Adult Female Consensual $a = .85$, Adult Male Consensual $a = .91$, Minor or Child Female $a = .82$, and Minor or Child Male $a = .91$. Internal consistency and reliability is achieved when $a = 0.8$ or higher (Cohen, 1988; Wilson & Corlett, 1990; Aiken, 1991). The literature on the discriminant and predictive validity of the PPG assessing sexual arousal in child molesters is sizeable (e.g. Barbaree & Marshall, 1988). Frenzel and Lang (1989) estimated the reliability of the PPG to be as high as 93%.

Notwithstanding the supporting data outlined above, the PPG is controversial both in court (it has not gained general acceptance in the scientific community and passed the Frye Test for legal admissibility) and in the laboratory. Most of the time, an attorney who has his/her client tested for risk management and sexual deviancy purposes by PPG, is forced to litigate the same at a contested pre-trial Frye or Daubert Hearing (Tong, 2002).

Clinical experience suggests that subjects can stimulate responses by manipulating mental images. Abel (2005a) documented individuals undergoing PPG evaluations may try to fake responses by fantasizing about children during adult stimuli and distract themselves during child stimuli presentations (Freund, 1989; Wilson, 1998). Anecdotally speaking, this researcher has not found participants who attempt to feign erectile responses to be problematic.

Arguably, one of the biggest obstacles to gathering reliable and valid PPG data/results is potential expert error, and lack of competence on the part of the assessing psychologist. For the current study a clinical psychologist and board certified behavioral analyst administered participants' PPG assessments and supervised data analyses.

As mentioned above, sexual interest may also be measured by other, less intrusive tests including direct observation measures of sexual fantasy

behavior, and the three other tests under investigation for this study are the Abel Screen (VRT) and Abel Questionnaire for Men, collectively known as the Abel Assessment for Sexual Interest (AASI), and MSI-II or Multiphasic Sex Inventory-II, also known as the Molinder. This researcher next discusses the two-part test known as the Abel Assessment for Sexual Interest or AASI.

ABEL ASSESSMENT FOR SEXUAL INTEREST (AASI)

Abel Screen (VRT)

An alternative assessment measure for sexual interest purposes for admitting and non-admitting child molesters and non-admitting accused child molesters is Visual Reaction Time (VRT) or viewing time. VRT is much less invasive, embarrassing, time consuming, and costly than the PPG. Known as the Abel Screen, the VRT procedure has been tested against the more established PPG with high sensitivity and specificity to prepubescent and pubescent boys and high sensitivity but low specificity to prepubescent and pubescent girls (Abel, 2001; Gray & Plaud, 2005).

Visual reaction time utilizing the Abel Screen quantifies participants' viewing attendance rates to different categories of sexual stimuli. The Abel Screen VRT is administered entirely on a Windows-based laptop computer. Each participant views 160 digital images of clothed children, adolescents and adults while being screened in 22 areas of sexual interest. Visual reaction time, from a conceptual perspective, is based on the assumption that the longer a person views (i.e., attends to) a digital stimulus (visual image) the greater his or her interest in the type of person or activity represented by the stimulus, and vice-versa (Rosenzweig, 1942; Singer, 1984).

According to Abel (2005), Cronbach's alpha for the Abel VRT, or the internal reliability of the association of images within stimulus categories, is as follows: 2–4 year-old females $a = .87$, 8–10 year-old females $a = .86$, 14–17 year-old females $a = .85$, adult females $a = .80$, 2–4 year-old males $a = .60$, 8–10 year-old males $a = .75$, –17 year-old males $a = .90$, and adult males $a = .90$. Abel VRT has been shown to discriminate between male child sex abusers and community men (Abel, 1994; Harris, 1999) and between male child sex abusers and non-child related sex offenders (Abel, 2001).

The Abel Screen VRT is less controversial than the PPG. It has passed the Daubert test in multiple court cases. As well as taking less time to complete than the approximate 90 minute PPG assessment, which also requires the test-taker to watch and listen to nude child scenes, the Abel VRT does not appear to have a problem with non-responders, or flatliners, as seen sometimes with the PPG. Standardization is not problematic with VRT as Abel Screen, Inc., disseminates to all users of the test the same digital images. Further,

potential feigning of mental images creating possible false results has not been reported to be a problem with the Abel VRT (Abel, 2005a).

Abel Questionnaire for Men

A second and very important part of the AASI is the Abel Questionnaire for Men. The self-report psychometric Abel Questionnaire assesses 21 problematic sexual behaviors, including pedophilia. The Abel Questionnaire for Men affords the expert clinician probability values relative to a participant's engagement in extrafamilial child sexual abuse, intrafamilial child sexual abuse, and a Denier—Dissimulator scale that screens participants for concealment of their abusive actions, or the presence or absence of cognitive distortions. Approximately, 88% of child sexual abusers who attempt to conceal or deny are detected on the Denier—Dissimulator Probability Value (Abel, 2001).

One of the biggest advantages for using the Abel Assessment for Sexual Interest over the PPG, besides knowing that it's less intrusive for the subject, is the fact that it includes a Denier—Dissimulator Scale. Because many sexual offenders reveal the presence of cognitive distortions upon testing, and try to justify their genuine abusive actions by blaming other things or people, it's important to weed out liars and deniers. The Denier—Dissimulator Scale within the Abel Questionnaire does just that. An instrument's ability to correctly identify child molesters who deny having sexually abused children (denier—dissimulator child molesters) has the greatest clinical utility (Abel, 2005a).

MSI-II

The MSI-II, also known as the Multiphasic Sex Inventory or Molinder, is designed to measure sexual characteristics of an adult alleged to have committed a sexual offense. It can be used as part of a sex deviancy evaluation (as is the case in the present study), or to measure treatment progress of sex offenders. The MSI-II is an expanded version of the original MSI published in 1984 and has been extensively researched since 1986. Like the Abel Questionnaire for Men, it is a psychometrically validated self-report instrument.

The MSI-II assesses 12 separate measures of reliability and validity of each test subject's test taking behavior and response set patterns (Nichols & Molinder, 2005). The Molester Comparison and Rapist Comparison Scales within this self-report instrument compare each participant's scores to the scores of known child molesters and rapists.

Cronbach's alpha values for the MSI-II are as follows: MC (Molester Comparison) $a = .73$, RC (Rape Comparison) $a = .87$, CM (Child Molest) $a = .94$, D (Dissimulation) $a = .82$, and SSD (Social Sexual Desirability) $a =$

.88. Internal consistency measurements for the MSI-II were based on a sample size of child molesters of 1200.

THE CURRENT INVESTIGATION

The overarching research question addressed in this study was whether the results of the Abel VRT, Abel Questionnaire, and MSI-II would replicate the results of the PPG for a sample of adult males with regard to sexual arousal in response to child stimuli. That is, do all the tests possess interrelatedness as instruments designed to measure sexual deviancy? The rationale for the study was that if all four tests appear to be measuring the same construct, then it may be possible to further harness support for the less intrusive measures (Abel Screen VRT, Abel Questionnaire for Men and MSI-II), rather than the PPG.

A 50% cutoff threshold was selected on the basis that if no relationship existed between PPG scores and the other measures, 50% of the cases would be positive and 50% would be negative (i.e., chance). Thus, the following hypotheses were tested; that a greater than chance proportion of the sample of adult males with no arousal (as measured by the PPG) to children would also score below the cutoff for sexual interest on the Abel Screen VRT (hypothesis one); would score below the cutoff on the Abel Questionnaire for Men for sexual interest in children (hypothesis two); and would score below the cutoff on the MSI-II molester comparison and rapist comparison scales (hypothesis three).

METHOD

Design

This within-subject correlational study examined the presence or absence of sexual arousal, sexual interest, and cognitive distortions among a random sample of men accused of incest within acrimonious divorces and child custody battles. The study was specific to men accused of molesting their own biological children at the pre-trial, pre-adjudication court phase of litigation. It tested the association, if any, of the Abel Screen VRT, Abel Questionnaire for Men, and MSI-II (independent variables), in relation to the Penile Plethysmograph (dependent variable).

Participants

All participants in this study (n = 53) were adult male non-admitters, and accused of sexually abusing their own children and ranged in age from 28–54, with a median age of 41 years. All of the alleged child victims ranged in age from 3–11, with a mean age of 7 years. All participants were involved in

litigation at the pre-trial court stage, and upon their own free volition contacted and retained this researcher for forensic consultative services. Upon this researcher's recommendation to do so, all participants then retained the services of a Clinical Psychologist and Board Certified Behavioral Analyst for testing purposes.

Between January 2004 and March 2005, this researcher was contacted 1800 times by prospective participants either by phone, fax, e-mail, or mail. Only 53 of the 1800, or 3%, became actual clients and study participants. All participants signed informed consent forms before testing and were debriefed pre and post-testing, and availed themselves to psychophysiological and psychosexual testing to assess their overall level of psychosexual and psychological functioning.

Procedure and Apparatus

Testing was conducted between January 2004 and March 2005 at the expert's testing facility in New England. All participants were administered a battery of tests by the expert, who also proctored the full day of testing. On three occasions testing was extended into a second morning, as not all participants tested at the same rate of speed.

The expert, who engaged in clinical interviews with all participants prior to testing, thoroughly explained to each they could leave if they so desired, for whatever reason. All participants were informed their results were confidential and doctor–patient/work product privileged, and all were confidentially computer coded. All participants ($n = 53$) were administered the Penile Plethysmograph, Abel Screen VRT, Abel Questionnaire for Men, and MSI-II.

PPG

The dependent measure for this study, penile response and the construct of sexual arousal, was measured by a mercury-in-rubber strain gauge circumferential plethysmograph (Type A) and manufactured by Limestone Technologies. The plethysmograph was connected by a laptop computer for transformation from analog to digital recordings. Data were collected and stored using the Preftest data acquisition system (Limestone Technologies) on a Dell Inspiron 8200 laptop computer. All participants signed informed consent forms specific to the PPG.

The plethysmographic procedure was pre-calibrated and followed the ethical guidelines of the Association for the Treatment of Sexual Abusers (ATSA). Relative to each participant, the estimate of full tumescence from baseline was calibrated at 10 mm. Each participant was asked to produce an erection to approximately the three quarters estimate of full erection and

then allowed to return to baseline, which was defined as less than 20% full erection over three minutes.

Each script, three minutes in length, depicted one of the following sexual scenarios: an adult male and an adult female engaging in sexual intercourse (the female adult scene, FA), two adult males engaging in sexual intercourse (the male adult scene, MA), an adult male and a female child engaging in mutually consensual sexual behavior (the female child consensual scene, FC Con), and an adult male and a male child engaging in mutually consensual sexual behavior (the male child consensual scene, MC Con). The order of stimulus presentation was randomized. Scripts were presented both visually and auditory, simultaneously.

Each participant was video monitored throughout the PPG assessment procedure, which lasted about 90 minutes. In addition, each participant sat in a motion sensor chair while undergoing the PPG to ensure there was no self-manipulation of the strain gauge device. All of these precautionary measures served as a validity check for the PPG assessment procedure.

Abel Screen (VRT) and Abel Questionnaire

The Abel Assessment for Sexual Interest employed both a computer-based (Abel Screen VRT) and self-report (Abel Questionnaire for Men) assessment system that analyzed and indirectly measured an individual's relative strength of normal versus deviant sexual interests. The methodology of the Abel Screen was Visual Reaction Time (VRT), or viewing time. It required participants to rate 160 slides depicting children and adults while their physiological responses were recorded and analyzed. Slides were rated by participants on a 7-point Likert-type scale, whereby 7 = highly sexually interested and 1 = highly sexually disgusted. All participants signed informed consent forms specific to the Abel Screen VRT (Visual Reaction Time), one component of the Abel Assessment for Sexual Interest (AASI), before testing commenced. The Abel Screen VRT was administered to all participants using standardized stimuli. Images were presented on a computer monitor and advanced by each participant via a laptop computer. Participants determined the length of time each stimulus was viewed, which was recorded by the experimenter. The average time it took for each participant to complete the Abel Screen VRT was 60 minutes.

After completing the computer portion of the AASI (Abel Screen VRT) all participants were administered the Abel Questionnaire for Men. This second and final component of the AASI was a self-report questionnaire, and was designed to assess sexual deviancy and one's level of denial or cognitive distortions. Probability values were calculated for each participant in this study addressing four types of possible perpetrators. The four types were: Girl victims outside the family (GVOF scale); Boy victims outside the family (BVOF scale); Girl victims inside the family (GVIF scale), and Boy victims

inside the family (BVIF scale). If the probability value was 70% or greater, there was a high probability that an individual matched the type of child molester in that particular comparison group. If the probability value was 30% or less, there was a low probability the participant matched the type of child molester in that particular comparison group.

MSI-II

The final psychosexual measure administered to all participants was the MSI-II, also known as the Multiphasic Sex Inventory—II, or Molinder. Developed by Nichols and Molinder Assessments, Inc. from Oregon, the MSI-II was published in 1996 and was largely revised from the original MSI-I published in 1984. The MSI-II, another self-report instrument like the Abel Questionnaire, was comprised of hundreds of questions and took participants on the average of one hour to complete. Areas that were addressed in the test were child molestation, rape, exhibitionism, voyeurism, pornography, bondage/discipline, and sadism/masochism.

The MSI-II was selected as a measure for this study because of its reliability and validity with sex offenders who try to deny sexual misconduct. The average participant took 45 minutes to complete this self-report measure. For purposes of this study, the test scores that were included relative to each participant's MSI-II, were the Sex Deviance Scales in T-Scores and Molester Comparison (MC), and Rape Comparison (RC) scales. Results less than 30 were deemed to be consistent with non-molesters and non-rapists. Conversely, results above 60 and closer to 75 in the marked range were consistent with sexual deviancy, child molesters, and rapists. Participants' molester comparison and rape comparison scales were compared to the scores of known child molesters and rapists.

ETHICS

Between January 2004 and March 2005 all participants (n = 53) voluntarily tested with the expert, a Clinical Psychologist and Board Certified Behavioral Analyst, at a laboratory testing facility in New England. All participants, prior to testing and in voluntary fashion, were debriefed by this researcher and the expert about their day-long psychosexual and psychological assessment. All participants, in voluntary fashion and without any coercion, signed informed consent forms specific to the PPG and Abel Screen VRT. They were apprised that their test results may be used in future research studies. And, the expert debriefed all participants post-testing.

RESULTS

Twelve variables were used in this study, two from the Penile Plethysmograph (PPG) assessment, four from the Abel Questionnaire, four from the

TABLE 1 Descriptive statistics relating to each of the assessment tool scores

Variable	N	Minimum	Maximum	Mean	Standard deviation
PPG FCcon	53	−1.50	1.68	−0.21	0.49
PPG MCcon	51	−1.39	1.39	−0.28	0.42
GVOF	44	0.00	67	21.98	15.15
GVIF	44	0.03	27	13.27	7.38
BVOF	44	1.00	88	06.05	13.34
BVIF	44	0.00	02	00.14	0.41
MSI-II MC	52	2.00	21	11.15	3.83
MSI-II RC	52	0.00	15	05.46	3.33
YYM	47	−4.43	−0.10	−0.74	0.58
YM	47	−1.63	−0.31	−0.70	0.20
YYF	47	−1.17	0.04	−0.69	0.25
YF	47	−1.04	0.49	−0.51	0.28

Key: PPG FC = Plethysmograph score of sexual arousal to female children; PPG MC = Plethysmograph score of sexual arousal to male children; GVOF= Abel Questionnaire indicating sexual arousal for girl victims outside the family; GVIF = Abel Questionnaire indicating sexual arousal for girl victims inside the family; BVOF = Abel Questionnaire indicating sexual arousal for boy victims outside the family; BVIF = Abel Questionnaire indicating sexual arousal for boy victims inside the family; MSI M = Multiphasic Sex Inventory Molester Scale; MSI R = Multiphasic Sex Inventory Rapist Scale; YYM = Abel Visual Reaction Time Sexual Interest in Preschool Males; YM = Abel Visual Reaction Time Sexual Interest in School-Aged Males; YYF = Abel Visual Reaction Time Sexual Interest in Preschool Females ; YF = Abel Visual Reaction Time Sexual Interest in School-Aged Females.

Abel Screen VRT, and two from the MSI-II. Table 1 presents the descriptive statistics for each of the 12 studied variables:

From the PPG, two variables, one relative to sexual arousal to female children (FC Con) and one relative to sexual arousal to male children (MC Con) were used. Data from the PPG represented mean circumference scores in mm, adjusted for baseline circumference based on levels of tumescence and were treated continuously, and then were converted to categorical scores. Scores ranged from –1.0 to +1.0 where less than +1.0 indicated a lack of sexual arousal to stimuli and greater than +1.0 indicated genuine sexual arousal.

From the Able Screen VRT four scales were included, and those indicated sexual interest to child stimuli under visual examination. Specifically, the stimuli were interest in preschool females (YYF), school-aged females (YF), preschool males (YYM), and school-aged males (YM). Scores ranged from +1.0 to +7.0, whereby scores greater than 4.0 and closer to 7.0 indicated genuine sexual interest to stimuli. Scores closer to 1.0 or less indicated a genuine lack of sexual interest.

From the Abel Questionnaire four scores were measured; those indicating sexual interest in female victims who are outside the family (GVOF), female victims who are inside the family (GVIF), male victims outside the family (BVOF) and male victims inside the family (BVIF). Scores on all four scales ranged from 0% to 100%. From the Multipashic Sex Inventory-II (MSI-II) two

TABLE 2 Summary of grouping criteria for each of the four assessment tools

	Deviance	Non-Deviance	Range
PPG*	>1.0	<1.0	−1.0 to + 1.0
Abel Screen VRT*	>4.0	<1.0	+1.0 to +7.0
Abel Questionnaire*	>70%	<30%	0% to 100%
MSI-II*	>60	<30	0 to 100

*Data converted from continuous to categorical.

scores were included; the molester comparison and rapist comparison scales. Continuous scores ranged from 0 to 100.

CATEGORIZATION

For statistical analysis purposes, participants were categorized as "deviant" and "not deviant" based on scores from the Abel Screen VRT, Abel Questionnaire, and MSI-II. The grouping criteria, as outlined below, were taken from the test manuals. Table 2 summarizes these categorizations for each of the four assessment measures.

For the PPG scores, out of the sample of 53 participants, 2 or 3.8% were indicated as showing sexual arousal to children (1 indicated sexual interest to male children and scored 1.39 and the other to female children and scored 1.68). That is, they scored above +1.0, which is considered to be the cutoff point or deviant point relative to the child stimuli. These two participants were removed from further analysis to leave a sample of 51 male participants who, according to the PPG data, were not sexually deviant. Both deviant participants scored below cutoffs on all other measures including the Abel Screen VRT YYF, YF, YYM, and YM scales; Abel Questionnaire GVOF, GVIF, BVOF, and BVIF scales; and MSI-II MC and RC scales.

For the following statistical tests (binomial distributions), 50% was selected as a cutoff on the basis that if no relationship existed between PPG scores and the other measures, 50% of the cases would be positive and 50% of the cases would be negative (i.e., by chance).

Abel Screen VRT

In order to address hypothesis one, the remaining sample of 51 participants with negative PPG scores below a score of 0 with regard to sexual arousal of children were examined with regard to their scores on the Abel Screen VRT scales regarding sexual interest in children (analyses for sexual arousal linked to males and females and pre-school and school-aged children were conducted separately). Due to missing data, the sample was reduced to 46 participants. Four binomial distributions were calculated, each against a

hypothetical 50% test proportion. For all four scales (pre-school boys (YYM), school-aged boys (YM), pre-school girls (YYF), and school-aged girls (YF), 100% of the participants scored below the cutoff of 1.0 and thus were all classified as "non deviant." All tests were statistically significant ($p < .001$) and thus hypothesis one was supported.

Abel Questionnaire for Men

In order to address hypothesis two, the remaining sample of 51 participants with PPG scores below the 0 cutoff for sexual arousal to children were examined with regard to their scores on the Abel Questionnaire probability scales relative to sexual interest in children (analyses for sexual arousal linked to males and females were conducted separately).

Abel Questionnaire scales regarding sexual interest in female children

Due to missing data, the sample was reduced to 43 participants. For both GVOF and GVIF, 100% of the participants scored below the cutoff of 30% and thus all were classified as "non deviant.' Both tests were statistically significant ($p < .001$).

Abel Questionnaire scales regarding sexual interest in male children

Due to missing data, the sample was reduced to 43 participants. For BVOF, 98% of the participants scored below the cutoff and for BVIF, 100% of the participants scored below the cutoff. Both tests were statistically significant ($p < .001$). Thus, support was found for hypothesis two.

MSI-II: Molester Comparison and Rapist Comparison Scales

In order to address hypothesis three, the sample of 51 participants with PPG scores below the cutoff for sexual arousal to children were examined relative to their scores on the MSI-II molester comparison and rapist comparison scales. For both MSI-II molester and rapist scales, 100% of the participants scored below the cutoff of 30. Both tests were statistically significant ($p < .001$) and thus hypothesis three was supported. All of the statistics described above are displayed below in Table 3.

DISCUSSION

The current study utilized a within-subject design to examine a random outpatient sample of men ($n = 53$), all accused of incest within contested divorces and custody battles. The chief focus was to investigate whether or

TABLE 3 Results of Binomial Distributions of Concurrent Validity Scales

	Tested Proportion	Actual Proportion	P Value
Abel VRT YYF	.50	1.0	.001
Abel VRT YF	.50	1.0	.001
Abel VRT YYM	.50	.98	.001
Abel VRT YM	.50	1.0	.001
Abel Q GVOF	.50	1.0	.001
Abel Q GVIF	.50	1.0	.001
Abel Q BVOF	.50	.98	.001
Abel Q BVIF	.50	1.0	.001
MSI-II MC	.50	1.0	.001
MSI-II RC	.50	1.0	.001

not participants' cutoff scores on three independent psychosexual measures; the Abel Screen VRT, Abel Questionnaire, and MSI-II, were consistent with scores on the dependent measure of sexual arousal, the PPG. The data clearly showed that the Abel Screen VRT and PPG, Abel Questionnaire and PPG, and MSI-II and PPG were all speaking the same language.

The findings from this study achieved statistical significance and clinical importance, and supported all three hypotheses. The results achieved from this study clearly linked all four test measures under investigation and the constructs examined within the same; i.e., sexual arousal, sexual interest, and cognitive distortions. Therefore, the results from this study supported the use of the Abel Assessment for Sexual Interest (Abel Screen VRT and Abel Questionnaire) and MSI-II as possible replacement measures for the more intrusive procedure, the PPG.

As society strives to better protect children from acts of bona fide sexual abuse, the prevalence of unfounded and false allegations should not be ignored. Although better education and training of child protection investigators and interviewers will help to decrease the numbers of source misattribution errors (alternative hypotheses and/or mistakes in identity) made by professionals, there is always a need for more persuasive evidence in the courtroom to corroborate or refute allegations of child sexual abuse.

Methodological limitations of this study bear mentioning. While the number of participants allowed for appropriate statistical considerations and analyses, complete datasets varied per test measure. Excluding the two participants that scored deviant on the PPG left 51 individuals for the PPG and MSI-II, 46 individuals for the Abel Screen VRT, and 43 individuals for the Abel Questionnaire for Men. The absence of a comparison control group of known child sex offenders from which participants for this study could be assessed, precluded this researcher from determining concurrent validity between the test measures. The chief constraint with the data from this study was that there was not sufficient sample variation as all but two participants

tested below the cutoffs on all measures. Another concern of this study was the small sample size, itself. And still another concern of this study was the external validity of the procedure, or the extent to which the assessment of sexual preference in the laboratory predicts behavior outside the laboratory.

Future studies employing much larger participant pools tested against additional control pools of known child sex offenders may lead to a greater ability to validate and generalize the results reported here. Taken as a whole, this researcher's findings support the use of testing accused child molesters by AASI, MSI-II, and if necessary, PPG, especially in the context of protracted child custody battles.

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