Convergence Validity of the Affinity Measures of Sexual Interest

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Abstract

Although the *Abel Assessment of Sexual Interest-2* (*AASI-2*) is the prominent measure of sexual interest via self-reports and visual reaction time (VRT), many sex offender evaluators have considered utilizing the *Affinity*, as this contemporary measure requires less financial resources and time allocation to administer. To assess the clinical utility of the *Affinity*, this study examines the convergent validity of the *Affinity 2.5*, as compared to the *AASI-2*. Participants consisted of 60 sex offenders who were administered these measures of sexual interest in the community, as part of a sex offense-specific evaluation. The measures were counterbalanced to control for order effects. As both instruments appear to produce comparable results with respect to sexual interest, these preliminary findings support the convergent validity of the *Affinity 2.5* with the *AASI-2.* Although additional research is needed, these findings suggest that the *Affinity 2.5* may be useful as an alternative measure of sexual interest.

Purpose of the Research

To assess the clinical utility of the *Affinity:*
by examining the correlation between the *Affinity 2.5* and the *Abel Assessment of Sexual Interest-2 (AASI-2).*

Utility of Measuring Sexual Preference

- To evaluate whether sexual interest in age-appropriate partner is present

- To assist in treatment interventions (i.e., to determine whether offending behavior reflects a pedophilic interest as opposed to less-specific social and psychological deficits)

Should not be used (by itself) to determine risk or diagnosis of pedophilia

Assessments of Sexual Preference

- Self-report questionnaires
  - Multiphasic Sex Inventory
  - Abel Questionnaire for Men
- History of Victim or Partner Choice
  - Sex History
  - Polygraphy
  - Official Record
- Phallometric Methods (plethysmograph)
- Viewing Time (AASI-2, Affinity 2.5)
  - Viewing time is the length of time spent viewing an image of a person, which has been reported to be significantly correlated with sexual interest.
  - Ipsative measure that compares each individual against his own viewing time averages.

Comparison of PPG to VRT

PPG

- Studied more extensively
- Measures sexual arousal to audio or visual stimuli
- Is more costly, invasive, and labor-intensive
- It is limited to primarily male participants
- Requires motivated participants
- Validity is based on the expertise of the examiner: lack of procedural standardization, scoring, and interpretation of the data

VRT

- Studied less: some lack peer review of data interpretation and scoring
- Measures sexual interest through self-report verified by viewing time
- Is relatively inexpensive, less invasive
- Has standardized procedures and visual materials
- Contains less sexually explicit in content
- Does not assess sexual preference for rape

Although they have been empirically determined to correlated, are sexual arousal and sexual interest the same phenomenon?

Lit Review: VRT and PPG

- VRT assessment of sexual interest has demonstrated comparable results to PPG (Abel, Huffman, Warberg, & Holland, 1998; Tong, 2007)
- VRT has significantly discriminated between the child molesters and normal controls (Harris, Rice, Quinsey, & Chaplin, 1996)
- VRT and the PPG have been shown to identify diagnosed pedophiles 79% and 64%, respectively (Gray & Plaud, 2005)
- VRT and PPG have identified offenders against young boys, but VRT has identified offenders against adolescent girls (Letourneau, 2002)
- VRT and PPG have been shown to not identify offenders against young girls and rapists in one study (Letourneau, 2002)

Lit Review: Affinity Findings

- Affinity designed to enable males with a learning disability to systematically report sexual interest using computer-based procedures (Glasgow, Osborne, & Croxen, 2003)

- Research on adolescents demonstrated that the Affinity could distinguish adolescents who assaulted male children from comparison groups, but could not distinguish those who assaulted female children (Worling, 2006)

- Affinity produced consistently accurate age and gender preference classification as compared to criminal history with a relatively clear method of scoring (Laws & Gress, 2004)

- Affinity VRT has been shown to correlate significantly with its ranking measure and to adequately identify child sexual abusers of females, but it did not identify abusers of males (Beech & Holden, 2006)

Hypothesis

As they are both self-reported measures of sexual interest verified by viewing time measures,

it is expected that the *Affinity 2.5* will demonstrate convergent validity with the *AASI-2*.

Participants

- 60 men who were referred for clinical assessment because of criminal or problematic sexual behavior

- Participated in testing as part of a sex offense-specific evaluation

Demographic Characteristics

Age				
Mean (SD)	34 years	(12.50)		
Ethnicity	Caucasian	Hispanic/Latino	African-American	Pacific-Islander	Native American
%	70	23	3	2	2
Testing Location	Community	Jail	Recovery Center		
%	65	33	2		
Current Offense	Sexual	Non-Sexual			
%	75	25			
Convict. Type	Misdemeanor	Felony	Felony & Misdemeanor		
%	22	62	16		

N = 60

Primary Victim/Offense of Record

N = 60	*n*	Percent
Child Female	27	46
Rape Female	9	15
Incest Female	9	15
Child Male	3	5
Rape Male	1	2
Rape Wife	1	2
Child Male and Female	1	2
Child Pornography	1	2
Frottage	1	2
Internet Offense	1	2
Exhibitionism	1	2
Public Masturbation	1	2
Domestic Violence	1	2
Incest Male and Female	1	2

Measures and Data Collection

- Testing was conducted between April 2007 and April 2008
- Assessment, file review, and clinical interview were conducted by a Colorado Sex Offender Management Board-Certified evaluator.
- The sexual interest measures were counterbalanced to prevent order effects.
- Participants provided written informed consent for their assessments to be used for research purposes.

Data Collected for this study include:

1. Demographics and Criminal History: Police report and clinical interview
2. Sexual Interest
   Affinity 2.5 (Glasgow, 2005): VRT
   Abel Assessment for Sexual Interest: VRT (AASI-2; Abel Screening Inc., 2004)

Affinity 2.5

- Ranking Task
  - consists of 8 images designed to represent males and females at different developmental stages.
  - Participants are asked to click on the image that represents the type of person they would find most attractive. The process is repeated with the added option of clicking the none button, if none of the images are perceived as sexually attractive. Participants are then asked to rate the images with respect to sexually unattractiveness.

- Rating Task
  - consists of 80 images (8 sets of the 10 images that correspond to the categories represented in the ranking task).
  - Participants are asked to rate the sexual attractiveness of each image by clicking on the rating scale that ranges from very unattractive to very attractive.
  - Affinity 2.5 transforms the VRT data (obtained during this task) into mean ranks (OTL and PTL).

Abel Assessment of Sexual Interest-2

- Participants view 160 standardized, digital images of clothed children, adolescents, and adults while being screened in 22 areas of sexual interest.

- Participants are asked to rate each slide on a 7-point scale from 1 (*highly sexually disgusting*) to 7 (*highly sexually interesting*).

- AASI has been reported to discriminate between child sexual abusers and non-child related sex offenders (Abel, Jordan, Hand, Holland, & Phipps, 2001) and between male child sexual abusers and community men (Abel, Lawry, Karlstrom, Osborne, & Gillespie, 1994).

- Internal reliabilities of VRT: 2–4 year-old females ∞ = .87, 8–10 year-old females ∞ = .86, 14–17 year-old females ∞ = .85, adult females ∞ = .80, 2–4 year-old males ∞ = .60, 8–10 year-old males ∞ = .75, –17 year-old males ∞ = .90, and adult males ∞ = .90 (Abel, 2005).

Descriptive Average VRT Scores

	Categories (gender/age range)	Minimum	Maximum	Mean	Std. Deviation
Affinity 2.5	Adf (adult female)	32.80	75.30	66.45	7.78
	Juf (females 13-17)	27.80	72.40	55.21	9.11
	Adm (adult male)	20.35	62.60	36.84	9.76
	Pjf (females 7-12)	20.00	55.60	35.89	7.73
	Jum (males 13-17)	22.40	58.00	35.32	6.72
	Scf (females 2-6)	18.10	50.20	32.59	6.32
	Pjm (males 6-12)	21.60	48.50	32.20	6.29
	Scm (males 2-6)	15.80	48.50	29.50	7.56
AASI-2	Af (adult female)	-0.36	4.11	1.54	0.97
	Adf (females 14-17)	-1.13	4.01	1.47	0.97
	Yf (females 6-13)	-0.87	1.91	-0.36	0.48
	Am (adult male)	-1.26	1.37	-0.41	0.50
	Adm (males 14-17)	-1.09	0.99	-0.55	0.37
	Yyf (females 2-5)	-1.16	1.43	-0.60	0.47
	Ym (males 6-13)	-1.09	0.31	-0.64	0.24
	Yym (males 2-5)	-1.22	0.37	-0.70	0.25

Data are presented in order from highest to lowest mean VRT

Data Classification

- As viewing time is an ipsative measure, the following procedures were conducted to assess the convergent validity of sexual interest scores yielded on the *Affinity 2.5* to those on the *AASI-2*.

- *Affinity 2.5* viewing time on task latency (OTL) and *AASI-2* visual reaction time (VRT) scores were converted into dichotomous measures of participants' sexual interest in each of the eight age and gender categories (i.e., significant sexual interest indicated vs. no significant sexual interest indicated).

Table 1

Frequencies and Levels of Agreement on Significant Sexual Interest Scores

Category	Affinity 2.5 Only	AASI2 Only	Both	Neither	Agree	Disagree
Adult Female	0	1	59	0	98%	2%
Adult Male	3	5	7	45	86%	14%
Adolescent Female	3	7	50	0	80%	20%
Adolescent Male	4	4	3	49	87%	13%
Pre-Adolescent Female	5	6	3	46	82%	18%
Pre-Adolescent Male	2	5	0	53	88%	12%
Small Child/Preschool-age Female	1	5	1	53	90%	10%
Small Child/Preschool-age Male	2	1	0	57	95%	5%

N = 60

Not enough variation in the scores for statistical analyses

Table 2

Convergent Validity of Affinity 2.5 to AASI-2 VRT Scores

Affinity 2.5 Category	AASI-2 Category	χ^2	p	ϕ
Adult Male	Adult Male	18.75	<.001	0.60
Adolescent Male	Adolescent Male	7.48	< .05	0.35
Pre-Adolescent Female	Grade School-Age Female	3.67	0.09	0.25

Note. Not enough variation in the scores for statistical analyses on other categories.

Conclusion

- Results yielded evidence of the convergent validity of the *Affinity 2.5* to the *AASI-2* as a measure of sexual interest.

- The agreement among the two measures of sexual interest ranged from 80% to 98%.

- It appears that adult male and adolescent male sexual interest scores among the two measures were highly and moderately correlated, respectively.

- The pre-adolescent female sexual interest ratings demonstrated fair agreement.

Limitations

- The lack of variability within some of the sexual interest categories prevented statistical analyses to determine whether their level of agreement was beyond chance.

- The modest sample size utilized in this study limits the interpretation and generalizability of these findings.

- Future studies should include an incarcerated population as a comparison to increase variability within the sexual interest categories.

Implications

- *Affinity 2.5* appears to produce similar findings to the *AASI-2.*

- VRT measures should not be used in isolation as a risk assessment or diagnostic tool.

- These measures are an efficient way to assist in summarizing large amounts of self-report questionnaire data.

- The use of multiple convergent measures will increase the sensitivity and specificity of the assessment of sexual interest.

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