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## Introduction

- Sexual interest in children is an important cause of child sexual abuse and an integral part of the assessment and treatment of child molesters
- Commonly used methods to assess sexual interest in children are self-report measures and penile plethysmography (PPG)
  - An indirect measure can offer a supplement to other more commonly used measures
- Viewing time measures involve:
  - The presentation of pictures of nude or semi-nude individuals representing different age groups
  - The time spent viewing each picture is unobtrusively recorded while participants rate the attractiveness of the individual represented in the picture
- Research has found that viewing time measures:
  - Are correlated with self-reported and PPG-assessed sexual interests (Abel, Huffman, Warberg, & Holland, 1998; Quinsey, Ketsetzis, Earls, & Karamanoukian, 1996; Stinson & Becker, 2008)
  - Can distinguish child molesters from men in the community (Harris, Rice, Quinsey, & Chaplin, 1996) and from rapists (Gress, 2005)

## Purpose of the current study

- Evaluate the discriminative and convergent validity of a viewing time measure of sexual interest in children

## Method

### Participants

- Thirty-two child molesters with an index offence against a victim under the age of 12 and 30 non-molesters (20 non-sex offenders without any history of sexual offences and 10 sexual offenders with an index offence against a victim 18 years of age or older)
- Adult male inmates in federal prisons in Ontario, Canada

Table 1. *Sample Descriptives*

Variable	Child Molesters			Non-Molesters		
	Mean	SD	N	Mean	SD	N
Age	50.4	12.4	32	39.6	12.5	30
Education	10.3	2.1	29	10.5	1.7	28
Aggregate Sentence Length	5.2	2.8	21	4.6	2.2	19
Static-99	4.5	2.5	30	5.9	2.5	9
Sexual Convictions	8.4	9.5	31	1.2	2.8	30
Non-sexual violent convictions	1.1	1.4	31	3.5	3.4	30
Non-sexual non-violent convictions	1.3	2.5	31	16.6	28.0	30

Note. Sample size fluctuates as a function of missing data. Eleven child molesters (34.4%) and 11 non-molesters (36.7%) were serving indeterminate sentences. Total number of convictions include both index and prior convictions.

## Method

### Measures administered during testing session:

- Viewing time:**
  - Presented pictures of nude individuals from the Not Real People Stimuli (Gress & Laws, 2004)
  - Participants rated the attractiveness of each individual depicted in the pictures on a 7-point Likert scale (very unattractive to very attractive)
  - Each picture represented a specific Tanner stage:
    - Tanner 1 (approximately 0 to 3 years of age), Tanner 2 (approximately 4 to 7 years of age), Tanner 3 (approximately 8 to 12 years of age), Tanner 4 (approximately 13 to 15 years of age), or Tanner 5 (approximately 16 years of age and older)
    - Each Tanner stage was represented by eight pictures (four per gender)
  - Viewing time = The time between the presentation of the stimuli and when the rating was obtained
- Sexual Interest Profiling System (SIPS; Laws, 1986): Self-report measure of sexual interest

### Measures gathered from offenders' criminal files:

- PPG (Quinsey Child Sexual Violence Assessment): Physiological measure of sexual interest in children
- Screening Scale for Pedophilic Interest (SSPI; Seto & Lalumière, 2001): File-based measure of sexual deviancy
- Static-99 (Hanson & Thornton, 1999): Risk of sexual recidivism

## Results

### Group difference in viewing time for each Tanner stage

- The *t*-tests were performed on logarithmically transformed data due to severe positive skewness. Figures 1 and 2, however, display the raw viewing time for ease of interpretation
- Female Pictures:** Child molesters viewed pictures of Tanner 1 and Tanner 2 females significantly longer than the comparison group,  $t_{\text{Tanner1}}(60) = 2.3, p = .03$  and  $t_{\text{Tanner2}}(60) = 2.4, p = .02$ 
  - Group difference on Tanner 3 was approaching significance,  $t_{\text{Tanner3}}(60) = 1.8, p = .07$
  - Groups were not significantly different in viewing time for Tanner 4 and Tanner 5 females,  $t_{\text{Tanner4}}(60) = 1.0, p = .34$  and  $t_{\text{Tanner5}}(60) = -0.5, p = .58$

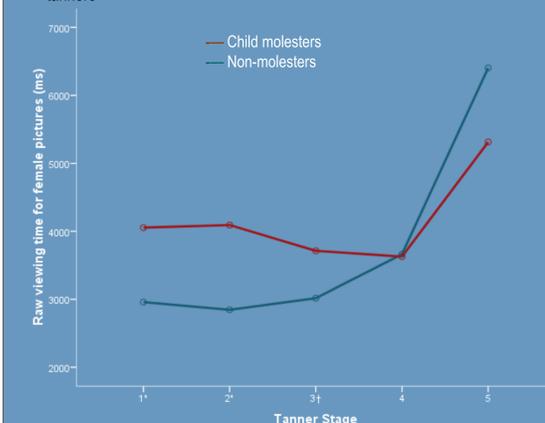


Figure 1. Average Viewing Time for each Female Tanner Stage  $t_p < .10, * p < .05$

## Results

- Male Pictures:** Child molesters consistently viewed pictures of males longer than the comparison group,  $t_{\text{Tanner1}}(60) = 2.9, p = .01$ ,  $t_{\text{Tanner2}}(60) = 3.2, p = .002$ ,  $t_{\text{Tanner3}}(60) = 4.0, p < .001$ ,  $t_{\text{Tanner4}}(60) = 3.0, p = .003$ ,  $t_{\text{Tanner5}}(60) = 2.6, p = .01$ , respectively

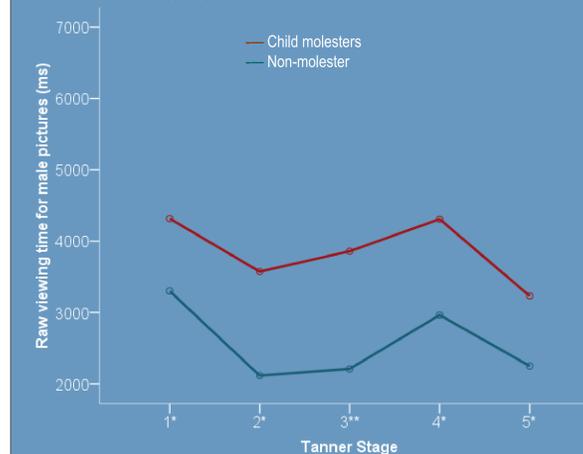


Figure 2. Average Viewing Time for each Male Tanner Stage  $t_p < .10, * p < .05, ** p < .001$

### Group Differences on the Viewing Time Differential

- All reaction times were positively skewed and thus data were logarithmically transformed
- The mean of the longest viewed gender of the adult Tanner stage (either women or men) was subtracted from the mean of the longest viewed child tanner stage (either boys or girls) for each participant
  - Tanner stages that represent children under 12 include: Tanner 1, 2, and 3
  - Higher scores indicate longer viewing time of pictures of children relative to pictures of adults
- Group significantly differed on the viewing time differential,  $F(1,60) = 19.77, p < .001$ 
  - The difference between groups was large, Cohen's  $d = 1.13$  (95% C.I. = 0.59 – 1.67)
  - Although child molesters were older than the comparison group ( $t[60] = 3.40, p < .001$ ), the viewing time differential was not correlated with age,  $r(62) = .15, p = .24$

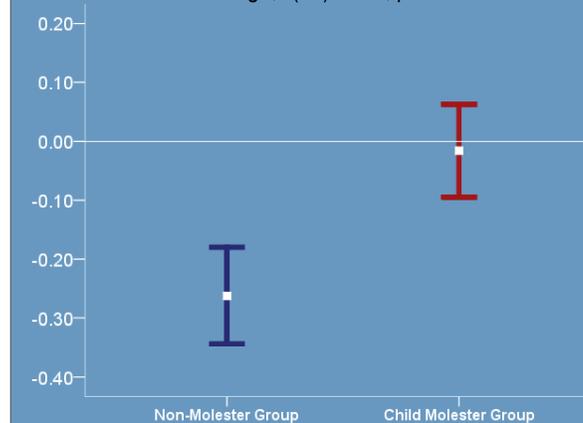


Figure 3. Group Differences on the Viewing Time Differential. A score of zero indicates that child and adult pictures were viewed equally as long.

## Results

- The viewing time differential distinguished between participants in each group with a high level of accuracy (AUC = .79, 95% C.I. = .67 to .90).

### Convergent Validity

Table 2. *Convergent Validity of the Viewing Time Differential*

Measures	Viewing Time Differential
	<i>r</i> ( <i>n</i> )
SIPS Pedophilia Score	.23 (62) <sup>†</sup>
SIPS Female Pedophilia	.22 (62) <sup>†</sup>
SIPS Female Incest	.17 (62)
SIPS Male Pedophilia	.24 (62) <sup>†</sup>
SIPS Male Incest	.20 (62)
PPG	.01 (20)
Static-99	.33 (30) <sup>†</sup>
SSPI	.12 (32)

Note. SIPS pedophilia score is the mean response of the pedophilia and incest subscales. Only the child molester group was included for the analyses involving PPG, Static-99, and SSPI.  $t_p < .10$

## Discussion

- Consistent with past research, viewing time discriminated between child molesters and non-molesters
- Child molesters that were higher risk to sexual reoffend (as measured by the Static-99) tended to view pictures of children, relative to adults, longer than those at lower risk. This correlation, however, only approached statistical significance
- The relationship between viewing time and PPG did not correspond to previous findings (e.g., Abel et al., 1998). However, only a small sample of child molesters had PPG scores, 8 of which were defined as low-responders (i.e., less than three millimeter change)
  - Excluding the low responders, the relationship between PPG and viewing time differential was small,  $r(12) = .06, p = .85$
- The current study generally supports the convergent validity of viewing time measures, however, further research is required to gain a more complete understanding

## References

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