

SEXUAL BEHAVIOR IN JUVENILES WITH PSYCHOPATHIC TRAITS

by

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A THESIS

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## ABSTRACT

The current study looked at three related areas of research in the field of child psychopathy. It extends the findings of adult research investigating the link between sexual behavior and psychopathy to a sample of detained juveniles. It also examined the factor structure of youth psychopathy and sexual behavior as well as the Big Five personality domains that have been associated with these constructs. Participants completed self-report measures of psychopathy, personality, and sexual behavior. Results of the current study suggest that, as predicted, there is a relation between promiscuous sexual behavior and psychopathy. The results support promiscuity being a salient predictor of psychopathy for females but not for males. Exploratory factor analyses suggest that the original two-factor structure best captures the structure of psychopathy and sexual behavior in a group of youthful offenders. In both the two and three factor models, promiscuous sexual behavior loaded with the items that comprise the Callous-Unemotional factor on the APSD. Loading on the Callous-Unemotional factor was predicted in the current study and suggests that promiscuous sexual behavior is related to the personality features of psychopathy and not merely a behavioral outcome of psychopathy. Finally, results of the current study find that the Big Five personality profile of youth with psychopathic traits resembles that which has been demonstrated in adult samples: low agreeableness and low conscientiousness. Contrary to expectations, the Big Five profile of youth with psychopathic traits did not include high extraversion.

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## LIST OF ABBREVIATIONS AND SYMBOLS

ANOVA	Analysis of Variance
$\alpha$	Alpha
$B$	Computed value of the unstandardized regression coefficient
$df$	Degrees of freedom: number of values free to vary after certain restrictions have been placed on the data
$F$	Fisher's $F$ Ratio
LSD	Least significant difference
$M$	Mean (arithmetic average)
MANOVA	Multivariate Analysis of Variance
$p$	Probability
p.	Page number
$r$	Measure of effect size (strength of a relation)
$SD$	Standard deviation
<	Less than
=	Equal to

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## 1. Introduction

Psychopathy, like many other mental disorders, can be thought to exist as a continuum, with people having varying degrees of psychopathic traits. Psychopathic individuals are different from 'normal' individuals in that they possess the same traits but in extreme degrees; lacking in some traits (e.g., guilt or remorse), and exceedingly high in others (e.g., glibness, self-worth). However, we should not normalize the construct too much. Psychopathic individuals can be devastating to themselves and to society at large. They engage in both violent and nonviolent criminal activity and have higher rates of recidivism than non-psychopathic individuals, which accounts for the prevailing opinion that they do not learn from past mistakes and respond poorly to treatment (Harris, Skilling, & Rice, 2001; although see Salekin, 2002 for an alternate view). Research has shown that a surprisingly small set of offenders, many of whom are psychopathic, are responsible for the majority (50-60%) of offenses (Salekin, Rogers, & Machin, 2001). This behavior is not only characteristic of adult psychopaths; it is suspected that 5-6% of persistent juvenile offenders are responsible for a large proportion of adolescent crime (Moffitt, 1993, 2003). Psychopathy exacts high societal costs that include the direct toll of the criminal behavior as well as huge government expenditures for law enforcement, imprisonment, and reliance on welfare (Salekin et al., 2001; Salekin, Rosenbaum, & Lee, 2008).

Over the past two decades there has been a surge of research investigating many aspects of psychopathy. However, there is still a great deal that is unknown about this disorder. This project focuses on a fairly specific aspect of the disorder; the notion that people with psychopathy engage in promiscuous sexual behavior, a potential health related concern for

youth. That people with psychopathy tend to be promiscuous is part of clinical theory and perhaps psychopathy lore, but there has been no empirical support for this claim. Examining research in the areas of psychopathy, sexuality, personality, and even, very briefly, evolution, the proposed study will investigate whether people with psychopathic traits engage in promiscuous sexual behavior to a greater extent than non-psychopathic individuals. Because of the importance of this topic area, the current study will examine the relations between psychopathy and sexual behavior. Specifically, this study will examine the links between psychopathy and onset of sexual activity as well the extent to which psychopathic youth have multiple partners. In addition, this study will then examine the factor structure of psychopathy to determine if sexual behavior is a component of psychopathy in youth. It is hoped that the proposed investigation will shed some light on the frequency and structure of promiscuous sexual behavior in youth with psychopathic traits and whether these traits merit continued inclusion in the construct of psychopathy.

### *Defining Psychopathy*

The antecedents to the construct of psychopathy can be traced back to seminal work of Pinel in 1801 and Pritchard in 1835. Their work centered on moral insanity and the notion that criminality was the result of a damaged moral structure (Blair, Jones, Clark, & Smith, 1995). The modern concept of the disorder has changed significantly since the early 1900s and is attributed to Cleckley's work. Psychopathy, as operationalized by Cleckley in his 1941 monograph, *The Mask of Sanity*, is a personality disorder comprised of 16 core traits that together create deficits in the affective and interpersonal functioning of the psychopath (Poythress, Skeem, & Lilienfeld, 2006). Cleckley developed the list of traits through observation of his psychiatric patients and the characteristics common to those he believed to be psychopathic. Despite the list of psychopathic

traits, determinations of psychopathy were fairly subjective. It wasn't until 1985 with the advent of the Psychopathy Checklist by Robert Hare and its subsequent revision in 1991 that a measure existed to assess the level of a person's psychopathic features (PCL, PCL-R; Hare, 1985, 1991). Despite the lack of systematic psychopathy measurement tools in the early conceptualizations of psychopathy, most theorists included impersonal and promiscuous sexual behavior in their accounts of psychopathy. Not surprisingly, the PCL-R included the item promiscuous sexual behavior, and the Psychopathy Checklist Youth Version (PCL:YV; Forth, Kosson, & Hare, 1996) includes an item entitled Impersonal Relationships to capture a version of sexual promiscuity in youth.

### *Psychopathy and Sexual Behavior*

Atypical sexual behavior has been included as part of psychopathy since the initial conceptualization of the disorder by Herve Cleckley in the early 20<sup>th</sup> century. Cleckley (1941) characterized psychopaths as having a history of short, unstable sexual relationships. Promiscuity continues to be included as part of the core construct of psychopathy with two of the twenty items on the PCL-R aimed to tap into this feature: Item 11, promiscuous sexual behavior and Item 17, many short-term marital relationships (Hare, 1991). The idea that people with psychopathic traits engage in promiscuous sexual behavior and have multiple unsuccessful relationships is based on theory about the development of antisocial behavior; antisocial personality predicts engagement in juvenile delinquency and substance abuse, which in turn are associated with early onset of sexual behavior (Capaldi, Crosby, & Stoolmiller, 1996). Further, aggressive children have more antisocial peers, engage in more sex, and have sex at younger ages than their peers (Ary, Duncan, Duncan, & Hops, 1999). Other traits associated with psychopathy, such as poor impulse control and sensation seeking, may play a role in the early

onset of youth sexual behavior. Additionally, youths who engage in sexual intercourse at an earlier age are likely to have more partners given the extended length of time during which they are sexually active, hence the appearance of promiscuity which is usually operationalized as an abnormally high number of partners.

Despite a number of case examples and theoretical perspective on the connections between sexual behavior and psychopathy, the research on this topic is scant. Incidentally, the two sexual items on the PCL are the only items on the Checklist that do not load onto any factor in the two, three, or four-factor models of the PCL-R. Failure of the sexual items to load onto any factor is true for both the adult and juvenile psychopathy measures. The inclusion of sexual promiscuity as a core feature of psychopathy is based on anecdotal evidence and has never been empirically studied to assess relevance as part of the construct. There is some evidence that sexual promiscuity and multiple relationships may be more salient for women and girls but there is not sufficient evidence to say this definitively (Salekin et al., 2001).

#### *Psychopathy and Factor Structures*

Extensive testing with the PCL-R on male offenders in both forensic and correctional settings led to the development of the two-factor model of psychopathy (Hare, Harpur, Hakstian, Forth, Hart, & Newman, 1990; Harpur, Hare, & Hakstian, 1989; Hare, 1991). Of the 20 items on the PCL-R, 9 items loaded onto the first factor ( $F_1$ ).  $F_1$  reflects personality features, the affective and interpersonal underlying traits of psychopathy (e.g., lack of remorse or guilt, callous lack of empathy, and shallow affect) whereas factor two ( $F_2$ ) is thought to assess the antisocial behavior components (e.g., juvenile delinquency and criminal versatility) (Harpur, Hakstian, & Hare, 1988). When Cleckley defined the construct of psychopathy, he did so using mostly personality traits, whereas Hare has given weight equally to personality and behavioral criteria (Lilienfeld,

1994). Cleckley based his traits on observations of psychiatric patients, not criminals (Vitacco, Neumann, & Jackson, 2005). The two-factor model of psychopathy is the original model upon which much of the current research on psychopathy is based. However, recently this model has come under attack for its inability to generalize to populations other than the Caucasian, male offenders it was based on. Differences in factor structure have been found between races (Cooke, Kosson, & Michie, 2001), gender (Salekin, Rogers, & Sewell, 1997), and European and North American samples (Cooke & Michie, 1999). Interestingly, in the early factor analytic work (Harpur et al., 1988; Hare et al. 1990), sexual promiscuity did not load on either factor. However, these factor analytic studies were based on males. In a study of adult female inmates, sexual promiscuity did load on the second factor (Salekin et al, 1997).

Problems of fit with the two-factor model for subjects other than incarcerated, Caucasian males led Cooke and Michie (2001) to develop a hierarchical three-factor model of psychopathy. The three-factor model differs from its predecessor in a few important ways. In Cook and Michie's model,  $F_1$  was broken into two separate-yet-related factors labeled Arrogant and Deceitful Interpersonal Style and Deficient Affective Experience, respectively. Factor three, Impulsive and Irresponsible Lifestyle, is similar to  $F_2$  of Harpur, Hare, and Hakstian's model except that explicitly criminal items were removed from its loading (e.g., Criminal Versatility and Violation of Conditional Release). Cooke and Michie (2001) have suggested that criminality may be a feature of the group used in the development of the PCL, male criminal offenders. In this model, criminal aspects of the psychopath are not a core feature of psychopathy; they are, however, believed to be correlated with, or a consequence of, psychopathy. Hare, convinced of the clinical value of the excluded antisocial-criminal behavior items, subsequently proposed a four factor model. This model maintained Cooke and Michie's three factors but added a fourth

factor, Antisocial Behavior, to reincorporate the excluded items (Hare, 2003). It is difficult to know, based on these findings, if antisocial behavior should be included as a component of psychopathy. Similarly, it is difficult to know whether sexual promiscuity should be included based on these models.

A recent study by Harris, Rice, Hilton, Lalumière, & Quinsey (2007) is the first attempt to look at the factor structure of psychopathy including items assessing sexual behavior. According to Harris et al. (2007), promiscuity and multiple marriages/relationships (the two current measures of sexual behavior on the PCL-R and PCL:YV), have not been shown to be part of the core construct of psychopathy. They suggest, based on the findings of their study, that items relating to precocious and coercive sexual behaviors might be more useful in identifying individuals with psychopathic traits. Using the PCL-R with a sample of incarcerated sex offenders, they propose a 3 factor structure, the original 2 Hare factors and a third factor “Coercive and Precocious Sexuality”. Given the correlations between psychopathy and antisocial behavior, and antisocial behavior and early age at first sexual experience, it follows logically that people with psychopathic traits would be likely to engage in sex earlier than their peers (Harris et al., 2007). However, the case for coercion being part of the psychopathy construct is a bit more tenuous. Harris et al. used a sample of sex offenders in their research. In such a sample, higher rates of coercive techniques would be expected.

Most of the theory regarding psychopathy is based on research using the PCL and PCL-R, which has been shown to be both a reliable and valid measure of psychopathy in adult, male offenders. From the empirical evidence generated from its use, we have a clearer picture of the institutionalized psychopathic individual (e.g., Hare, 2003; Salekin, Rogers, & Sewell, 1996). However, because the PCL-R was developed and tested using primarily institutionalized males,

there has been much debate about the appropriateness and validity of its use with other populations, such as women, children, and diverse ethnic and cultural groups (Nicholls & Petrila, 2005) and in particular how sexual behavior is linked to these other populations is not clear. The current project is centered on psychopathy in youth across genders. Because of this, I first briefly review research on the downward extension of psychopathy to youth and second, I review research on female psychopathy.

### *Assessing Psychopathy in Youth*

Research has shown that psychopathic adults usually showed significant antisocial behavior in childhood (Lynam, 1996). This bit of knowledge spurred the search for the fledgling psychopath, the thought being that if psychopathic individuals can be identified in youth, there would be more opportunities to intervene before the personality crystallizes in adulthood. During the 1990s, many researchers attempted to develop instruments that would identify “tomorrow’s psychopaths.” A downward extension of the PCL-R was created for this purpose, the Psychopathy Checklist: Youth Version (PCL:YV; Forth, Kosson, & Hare, 2003). Other scales created during this time included the Psychopathy Screening Device (PSD; Frick & Hare, 1994), now referred to the Antisocial Process Screening Device (APSD; Frick & Hare, 2001), and the Childhood Psychopathy Scale (CPS; Lynam, 1997). A major problem with all these measures, especially the PCL:YV and the APSD, is that they were derived directly from the PCL-R, an adult measure. In adapting them for children, the measures remained virtually the same with only minor changes to item wording to make them more age-appropriate. For instance, multiple unsuccessful marriages in the PCL-R became multiple unsuccessful relationships in the PCL:YV. This was all done, as with females, with little research to indicate that psychopathy in children looks like psychopathy in adults (Salekin et al., 2001).

Despite some concerns about the appropriateness of the concept of child psychopathy (see Seagrave & Grisso, 2002; Hart, Watt, & Vincent, 2002) there has been some research to show that the concept looks somewhat similar to that of adults. Although there are some differences, psychopathic youth appear to look generally the same on personality, cognitive, and affective measures (Salekin et al., 2008). Even though construct validity for the concept of child psychopathy has been amassing, we still know very little about the sexual behavior of adolescents who score high on psychopathy scales. In addition, we know very little about whether there exists variance or invariance across genders, with males or females possibly differing in their sexual behavior.

Salekin, Brannen, Zalot, Leistico, and Neumann (2006) conducted one of the first factor analytic studies on psychopathy in youth using the PCL:YV. They were able to model both three and four factor models but neither model contained the items of promiscuous sexual behavior or multiple unsuccessful relationships. Later, Neumann, Kosson, Forth and Hare (2006) examined the factor structure of the PCL-YV and found that 3 and 4 factor models were viable but they also did not model the sexual items. These studies generally support 3 and 4 factor models of psychopathy but do not speak to the importance of the sexual behavior items.

Frick, Bodin, and Barry (2000) conducted a factor analysis of the Psychopathy Screening Device (PSD), the precursor to Antisocial Process Screening Device (APSD) and found a similar three factor structure as the Cooke and Michie model. These authors found that there was a narcissistic factor, a callous unemotional factor and an impulsive factor. Although this measure has shown a similar factor structure to that of the PCL-YV, it does not contain any sexual items and could therefore provide little information on this topic.

## *Psychopathy in Females*

There is some disagreement among researchers concerning the acceptance and use of the gold standard PCL-R reflecting a paucity of research showing it to be a valid measure of psychopathy among women. On one side of the debate, researchers maintain that the construct of psychopathy evident in men will apply in the same way to women. Yet, there is some research suggesting that women experience psychopathy in different ways than their male counterparts and even produce a different factor structure (Salekin et al., 1997). Some notable differences between females and males with psychopathic traits are a later onset and less physical aggression in the female samples (Silverthorn & Frick, 1999). Research also suggests that women use different tactics to achieve the same goals as their psychopathic male counterparts, such as using relational rather than physical aggression. Psychopathic women are more likely than men to have relationship difficulties and tell lies yet less likely to engage in unlawful behavior (Salekin, Rogers, Ustad, & Sewell, 1998).

The PCL:YV has the same problem as the PCL-R in terms of generalizability to other populations since it was primarily developed on a population of white male adolescent offenders. There is a lack of information on psychopathy in female adult samples, and psychopathy in youth. Therefore, it should come as no surprise that there is even less data on the characteristics of child and adolescent female samples. Many researchers suspect that important gender differences of psychopathy in youth exist. Girls, like females in the adult samples, tend to receive lower ratings on the psychopathy criteria. This is convergent with findings that psychopathy and related disorders like Conduct Disorder (CD) and Oppositional Defiant Disorder (ODD) are less prominent in girls (Salekin et al, 2001). Some researchers believe that the lower numbers reflect differing conceptualizations of psychopathy, and that the current conceptualizations are less

applicable to girls. They argue that psychopathy would be equal across genders if we had the proper instruments to assess it. Girls tend to score much higher on the personality components of psychopathy than on the antisocial behavior components; males also score higher on the personality dimensions, but their scores on the behavioral components exceed those of the girls. It is plausible that if psychopathy diagnoses were based primarily on personality traits, girls and boys would show equal levels of the disorder. Prevalence rates drop for girls when the antisocial behaviors are equally weighted in the diagnosis (Salekin et al. 2001).

When clinical psychologists from the Clinical Child and Adolescent Psychology Section (Division 53) of the American Psychological Association mapped gender differences onto existing factor models, a very different structure emerged for boys and girls. For males, the two-factor structure that emerged included Violent Antisocial Behavior and Irresponsibility, Grandiosity, and Manipulation. In females,  $F_1$  included Manipulation, a personality aspect, and for  $F_2$ , Lack of Genuine Emotions and Nonviolent Antisocial Behavior, such as defiance and sexual promiscuity (Schrum & Salekin, 2006). Because girls and boys may show different patterns in their development and expression of psychopathic traits, how well the current instruments are identifying psychopathic individuals of each gender has been called into question. Nonetheless, there has been some consistency in research indicating that females high in psychopathic traits are sexually promiscuous and may engage in less emotionally attached relationships. Despite a few findings showing some gender differences, the topic as a whole appears to be under-researched.

#### *Theoretical Perspectives on Sexual Behavior in the Psychopath*

As with any new field of study, there is currently very little research looking at promiscuous sexual behavior and psychopathy. There are two areas of research which have

received some attention in attempting to answer why there may be a connection between sexual behavior and psychopathy. One theory stems from general personality research. Another theory looks at promiscuity as an adaptive evolutionary strategy.

Although psychopathy is not classified in the current diagnostic manual, DSM-IV, in the past it was included as a personality disorder so it may help to consider it in terms of current models of personality. In the original conceptualization of psychopathy by Cleckley, psychopathy was identified primarily by personality characteristics. However, recently psychopathy has become defined by the PCL-R, which is dominated by behaviors performed by those high in psychopathic traits. This has led many researchers to suggest that the theory postulated by Cleckley may not be the same disorder measured by the PCL-R (Lynam & Widiger, 2007). Rogers (2001), for instance, has argued this point asserting that of the 16 criteria for assessing psychopathy, only 7 of the items are represented by the PCL-R (Rogers, 1995). The remaining 9 Cleckley criteria were replaced with more behavioral features observed in the incarcerated samples Hare used to create his measure. As indicated earlier, inclusion of behavioral items have been contested by psychopathy researchers as a deviation from the traditional conceptualization of psychopathy.

A return to a classification of psychopathy based on personality features was fueled in part by the increased support for the Five Factor Model of personality in describing both normal and aberrant personality types. This model has been applied with success in describing people who engage in promiscuous sexual behavior as well as those high in psychopathic traits. The relationship between promiscuity and personality has been linked to four dimensions of the Big Five: extraversion, agreeableness, conscientiousness, and neuroticism (Schmitt, 2004). This

constellation of traits is consistent with the personality profile of someone high in psychopathic traits: low agreeableness and low conscientiousness and high extraversion.

Eysenck, one of the first people to investigate links between personality and promiscuity, found that people with high levels of extraversion engaged in sexual intercourse at younger ages, with higher frequency, and with more partners (Eysenck & Eysenck, 1975) a finding which was robust across Western cultures (Schmitt, 2004). People who are high in sensation-seeking, most closely aligned with Big Five characteristics low agreeableness and low conscientiousness, tend to have more sexual partners and engage in riskier sexual behavior (Zuckerman & Kuhlman, 2000). Finally, neuroticism has been linked with more permissive sexual attitudes and sexual risk-taking although precisely how this relationship works is unclear (Schmitt, 2004). A caveat to the above research is that sexual promiscuity has not been researched with children and adolescents so it is unknown whether the pathways found in adults will be appropriate for children.

Another theory suggests that psychopathic traits may be a viable evolutionary strategy. Unlike most disorders that result in deficits in specific areas, psychopathy is characterized by an excess of certain characteristics such as glibness, conning, and exploiting (Harris et al., 2007). Although most would consider an excess of these traits to be undesirable, Harris et al. have suggested that evolutionarily, they may have been beneficial for the people possessing them. Societies, over time, have functioned because the majority of the people were altruistic in nature and adhered stringently to rules. In such a situation, it was easy and effective for a small subset of humans to exist by cheating and exploiting others. As long as not too many people employed such a strategy, they could go relatively undetected. Should too many people use conning and exploitive practices, others would become hyper vigilant to such behaviors and they would be

less successful (Harris et al., 2007). Given that procreation is one of the strongest human drives on par with eating and sleeping, psychopaths would be driven to have representation in the gene pool. Research has shown that rapists whose victims are adults of child-bearing age tend to score higher on the PCL-R than those men who attack children with no reproductive capabilities (Quinsey, Rice, & Harris, 1995). This might be evidence of a strategy employed by people with psychopathic traits to reproduce. According to this theory, sex with multiple partners increases the odds of having a child and thus representation in the gene pool.

#### *Statement of the problem*

Promiscuous sexual behavior and unsuccessful relationships has been purported to be a component of psychopathy for decades. However, it is not clear to what extent this supposition is backed by research. Previous factor analytic work has shown that the only two items that do not load on any of the factors developed from analyses using PCL-R and PCL:YV are those items which assess promiscuous sexual behavior and multiple unsuccessful relationships, which seems to indicate that these items are not part of the core construct of psychopathy. While logic suggests that promiscuity and multiple unsuccessful relationships are likely to be a part of the psychopathy construct given similar predictors for these traits and psychopathy, no research exists to empirically show this. Additionally, the bulk of the research investigating psychopathy has been conducted using almost exclusively male samples (Schmidt, McKinnon, Chattha, & Brownlee, 2006). Studies that have included girls have found differences in factor structure suggesting that girls and boys experience psychopathy in distinctly different ways (Schrum & Salekin, 2006). Researchers have suggested that promiscuity may be one trait that is salient for girls with psychopathy but not for similarly disordered boys. However, there has been very little

research investigating gender differences in psychopathy and no research measuring gender differences and promiscuity in a psychopathic population.

The current study is important because there is very little data on the sexual behavior of people high in psychopathic traits; adults or adolescents. While promiscuity and poor relationship involvement continue to be listed as defining features of psychopathy, there have been no studies showing this link. The factor analyses conducted using the PCL-R and PCL:YV, the instruments we currently have to measure psychopathy, have actually shown that promiscuity is one of only two items that do not load on any factor. Recent work by Harris et al. (2007) has opened the door to the possibility that sexual behavior is part of the construct of psychopathy but is not captured by current measures of psychopathy. Their work shows that precocious and coercive sexual behaviors comprise a third factor of psychopathy. The present study seeks to continue the work of Harris et al. and may shed some light on whether promiscuous sexual behavior is part of the construct of psychopathy in youth. One unique aspect of the APSD is that it provides an insider look at the psychopathy symptoms in that youth self-report their symptoms and behaviors. In addition, the current study also has youth self report their sexual practices. This will be the first time that research has examined psychopathy and sexual behavior taking into consideration the youth's self-reporting of the various characteristics and behaviors.

As mentioned, several theories exist which attempt to explain why people with psychopathy might engage in promiscuous sexual behavior. While promiscuous sexual behavior has not been investigated with reference to psychopathy, there has been research on promiscuity in the context of general models of personality. There are similarities between the personality profiles of people who are high in psychopathic traits and people who engage in promiscuous sexual behavior (Lynam & Widiger, 2007; Markey & Markey, 2007; Salekin, Leistico, Trobst,

Schrum, & Lochman, 2005). This may suggest that promiscuity is mostly explained by psychopathy. There may be a strong relationship between psychopathy and promiscuity such that people who practice promiscuous sexual behavior are likely to score higher on measures of psychopathy. Perhaps promiscuity and psychopathy might best be understood through the lens of a general model of personality; examining the commonalities and discrepancies between people with a similar constellation of personality traits.

Recently a new theory has emerged that suggests that promiscuous sexual behavior is an evolutionary strategy used by psychopaths to increase their likelihood of procreation and thus representation in the gene pool (Harris et al., 2007). While this theory is exciting and provocative, it remains mostly theoretical as there is little research to support it.

### *Hypotheses*

1. Psychopathic youth will be more likely to have an earlier sexual debut than their peers.
2. Youths who are high in psychopathic traits will be more promiscuous than their low-psychopathy peers.
3. Females high in psychopathic traits will be more promiscuous than highly psychopathic males.
4. Because promiscuity and unsuccessful relationships are part of the psychopathy spectrum for adults, but are not included in measures of psychopathy for children, it is predicted that measures of sexual promiscuity and age of sexual debut will load with callous-unemotional traits when subjected to exploratory factor analysis.
5. Youths high in both psychopathy and promiscuity will demonstrate low agreeableness, low conscientiousness, and high extraversion.

## 2. Method

### *Participants*

Participants were recruited from the Tuscaloosa Regional Detention Center, Tuscaloosa Juvenile Court, and Juvenile Conference Committee (a local judiciary diversion program) in Tuscaloosa, Alabama. The sample consists of 96 boys and girls ranging in age from 11-18, primarily of Caucasian and African American descent (see Table 1).

### *Measures*

*The Antisocial Process Screening Device (APSD; Frick & Hare, 2001; see Appendix).* The APSD, formerly known as the Psychopathy Screening Device, is comprised of 20 behavioral items to ratings of youth psychopathy. Although it was initially devised as a device to measure psychopathy in pre-adolescent children (age 6-13), the APSD has since been modified as a self-report scale for use with both children and adolescents. The APSD was used in lieu of the PCL:YV for this study because the detention facility does not keep file information on the youth detainees. To score a PCL:YV, ideally, there must be both an interview with the youth and collateral information from the detention facility. An accurate measure of psychopathy can be ascertained with the file information alone. However, the reverse is not true; the PCL:YV interview must be used in conjunction with file information to assign a psychopathy score. A examination of the APSD and PCL:YV has indicated a moderate correlation between the measures ( $r = .62$ ) (Vitacco, Rogers, & Neumann, 2003). The APSD was derived from the Psychopathy Checklist-Revised (PCL-R; Hare, 1991) with modified content so as to be

appropriate for children. As a direct descendent of the PCL-R, the APSD is considered a valid measure of psychopathy in youth (Vitacco et al., 2003). The APSD has acceptable reliability and validity in community and clinic-based samples (Barry, Frick, & Killian, 2003; Frick, O'Brien, Wooten, & McBurnett, 1994; Frick et al., 2000). The APSD self-report behavior rating scale was used where each item was scored either 0 (Not at all true), 1 (Sometimes True), or 2 (Definitely True). The items were summed to yield a total score that could range from 0 to 40. There is no cut-off score for determining psychopathy; instead, it is thought to be a dimensional concept with youths having varying degrees of psychopathic traits. This is mostly in response to the stigma associated with being classified as a psychopath, and the particular danger of giving such a label to a child.

Frick et al. (1994) initially proposed that the APSD was comprised of two factors; Impulsive/Conduct Problems (I/CP) factor ( $\alpha = .82$ ) and Callous-Unemotional (CU) factor ( $\alpha = .73$ ). In the current study Cronbach's alpha for the I/CP and CU factors were .682 and .251 respectively. A later study using parent and teacher report versions of the APSD (Frick et al., 2000) found a three factor solution; Narcissism, Impulsivity, and Callous-Unemotional. The Narcissistic factor score is summed across 7 items, the Impulsivity factor score is summed across 5 items, and the Callous-Unemotional factor score is the sum of 6 items. This three-factor solution has been supported using the self-report version of the APSD in an institutionalized adolescent sample (Vitacco et al., 2003). In the institutionalized youth sample, internal consistency of the APSD factors was in the low to moderate range. Cronbach's alphas for the three scales have been reported to be .74 (Narcissism), .53 (Impulsive), and .59 (Callous-Unemotional). In the present study the alphas were found to be .357, .631, and .649 respectively.

*The Interpersonal Adjective Scale – Revised – B5 (IASR-B5; Trapnell, & Wiggins. 1990)* was used to assess the personality profile of each participant in this study. This measure is a modification of the Interpersonal Adjective Scale – Revised designed to assess all five factors of the Big 5: extraversion, agreeableness, openness, conscientiousness, and neuroticism. This self-report measure consists of 124 adjectives that participants rate on an 8 point Likert scale ranging from 1 (extremely inaccurate) to 8 (extremely accurate) according to how well the participants feel the adjectives describe them. Sixty items, divided evenly, on the IASR-B5 are used to assess conscientiousness, openness, and neuroticism. The remaining 64 adjectives, divided evenly, are used to measure the subject's agreeableness and extraversion. Cronbach's alphas for the five factors have been reported to be .93, .90, .87, .90, and .91 for the conscientiousness, neuroticism, openness, extraversion, and agreeableness factors respectively (Trapnell & Wiggins, 1990). Alphas in the current study were Conscientiousness ( $\alpha = .302$ ), Neuroticism ( $\alpha = .629$ ), Openness ( $\alpha = .488$ ), Extraversion ( $\alpha = .526$ ), and Agreeableness ( $\alpha = .412$ ).

*Sexual Behavior Questionnaire (SBQ; Rosenbaum, unpublished)* was developed for this study in order to determine the sexual practices of the youth in this sample. Although this measure is based on youth's own report of their sexual behavior, the item was administered by the researcher. This measure is comprised of six questions regarding the participant's history of sexual behavior, whether they were ever sexually abused, their degree of sexual activity, age at first sex, number of sexual partners, the nature of their sexual relationships, and whether they had ever had non-consensual sex. Since this is a new measure, there is no psychometric data from past research. In the current study, reliability of the scale was very low ( $\alpha = .083$ ) for the full sample and the males ( $\alpha = .106$ ). Reliability remained low for the females although it was slightly higher ( $\alpha = .334$ ).

## *Procedures*

Participants were recruited from three locations; The Tuscaloosa Regional Detention Center, Tuscaloosa Juvenile Court, and Juvenile Conference Committee. Juveniles recruited from the Juvenile Court and Juvenile Conference Committee were usually accompanied by their parent or legal guardian. In these situations, the parent/child pairs were approached by a researcher and asked if they would be interested in participating in a research study. If both the child and parent guardian agreed to participate they were either administered the questionnaire packet containing the ASPD, the IASR-B5, and the SBQ immediately or an appointment was made to administer the research battery in the waiting room of the Juvenile Court at a later date. At the Tuscaloosa Regional Detention Center youths were recruited on parent visitation days. Initially, the parent was approached in the waiting room and asked whether they would consent to their child being involved in a research study. After the parent completed the consent form, the incarcerated youth was approached for their assent to participate. The youth battery was administered with assistance from the researcher and took from an hour to an hour and a half to complete. When a participant was unable to read sufficiently well to complete the self-report measure, the researcher read each item to the child and the child would mark the appropriate response on their form. Reading ability was determined by asking how well they were able to read. If they indicated that they could not read or that they did not read well, the researcher would read the items aloud and the participants would mark responses on their own packet. Additionally, if it became apparent that the child was struggling with the reading (i.e., asking what the words were, or taking a long time to complete measures), the researcher would take over reading the items.

### 3. Results

Before conducting any analyses, the parametric assumptions, including equal variance, normal distribution, and independence were checked to ensure that the assumptions were not violated. None of the regression assumptions were violated. A promiscuity score was calculated as the number of sexual partners reported by the participant divided by the number of years of sexual activity. The denominator was calculated by subtracting the reported age at first intercourse from the participant's current age. This was done to control for possible age effects.

Correlation matrices were created to understand the relationships between study variables (see Tables 4-7). APSD factor scores were created based on past confirmatory factor analyses using the APSD. Based on the work of Frick, O'Brien, Wootton, and McBurnett (1994) two factors were created; Impulsivity/Conduct Problems (I/CP) and Callous-Unemotional (CU). The I/CP Factor is a sum of APSD items 1, 2, 4, 8, 9, 11, 13, 15, 16, 20. The Callous-Unemotional Factor is a sum of APSD items 3, 5, 12, 14, 18, 19. It should be noted that Items 6, 7, 10, and 17 were removed either because they loaded highly on both factors or failed to load on either factor in their confirmatory factor analysis. In the full sample, promiscuity was negatively related to agreeableness ( $r = -.274, p < .05$ ). APSD total score and both factors were negatively related to conscientiousness ( $r = -.547, -.409, -.438, p < .01$ ), extraversion ( $r = -.341, -.239, -.401, p < .01$ ), and agreeableness ( $r = -.484, -.348, -.423, p < .01$ ). APSD total score and I/CP were positively related to neuroticism ( $r = .242, .322, p < .01$ ). The CU factor was negatively related to openness ( $r = -.239, p < .01$ ).

In general, relationships present in the combined sample were also present in the male and female sample; APSD total score and both factors were negatively related to conscientiousness and agreeableness. However, there were some notable gender differences. In the male sample, APSD total score and both factors were negatively related to extraversion ( $r = -.497, -.371, -.527, p < .01$ ). Additionally, only in the male sample was promiscuity negatively related to agreeableness ( $r = -.265, p < .05$ ). Only in the male sample was the I/CP factor positively related to neuroticism ( $r = .275, p < .05$ ). In the female sample, promiscuity was positively related to APSD total score ( $r = .498, p < .05$ ) and CU factor ( $r = .482, p < .05$ ). It should be noted that, across gender, both factors were highly correlated with APSD total score and also with each other.

In the Three-Factor Model, Factor 1, Narcissism, was comprised of APSD items 5, 8, 10, 11, 14, 15, 16. Factor 2, Impulsivity, was a sum of APSD items 1, 4, 9, 13, 17. The Callous-Unemotional, Factor 3, was a sum of items 3, 7, 12, 18, 19, 20 (Frick et al., 2000, Vitacco et al., 2003). In the full sample and the male sample, promiscuity was positively related to APSD Callous-Unemotional Factor ( $r = .296, p < .01$ ;  $r = .270, p < .05$ ) and negatively related to agreeableness ( $r = -.274, -.265, p < .05$ ). In the female sample, promiscuity was positively related to APSD total score ( $r = .498, p < .05$ ). As predicted, there were negative relations between psychopathy score and Big Five personality traits conscientiousness and agreeableness. However, extraversion was related to psychopathy in the opposite direction as was expected. In the full sample and the male sample, extraversion was negatively related to psychopathy total score ( $r = -.341, -.497, p < .01$ ), Factor 1 ( $r = -.189, p < .05$ ;  $r = -.300, p < .01$ ), Factor 2 ( $r = -.184, -.227, p < .05$ ), and Factor 3 ( $r = -.429, -.492, p < .01$ ). There was no relation between psychopathy and extraversion in females. There were also found to be positive relations between psychopathy

score and neuroticism in the full sample ( $r = .242, p < .01$ ). In both the full sample and the male sample there was a positive relation between neuroticism and APSD Impulsivity Factor ( $r = .390, .377, p < .01$ ). In the full sample there was positive relation between neuroticism and APSD total score, ( $r = .242, p < .01$ ). In the female sample there was a positive relation between neuroticism and APSD Narcissism Factor ( $r = .380, p < .05$ ). All three factors were significantly correlated with APSD total score. Additionally, the Narcissism factor was positively related with the Impulsivity factor ( $r = .431, p < .01$ ). The Impulsivity factor was also positively related with the Callous-Unemotional factor ( $r = .222, p < .05$ ). The Narcissism and Callous-Unemotional factors were not related.

Hypothesis one stated that psychopathic youth will have an earlier sexual debut than their peers. A linear regression analysis was conducted to evaluate the prediction of total psychopathy score by age of sexual debut. The relation between age of sexual debut and psychopathy was not found to be significant,  $B = -.114, t(81) = -.327, p = .744$ .

The second hypothesis stated that youths with higher scores on the psychopathy measure would report more sexual partners than peers with lower scores. In order to test this hypothesis, linear regression analysis was employed to evaluate the predictive capabilities of promiscuity on psychopathy. To assess possible main effects of gender and ethnicity, these variables were also included in the regression analysis. The overall regression approached significance,  $B = 18.99, t(69) = 6.96, p = .087$ . The regression indicated that promiscuity was marginally predictive of psychopathy,  $B = .58, t(69) = 1.80, p = .077$ . Neither gender nor ethnicity variables were significant predictors of psychopathy in this analysis.

A hierarchical regression was conducted to test the third hypothesis; whether promiscuous sexual behavior was a more salient predictor of psychopathy for females than for

males. The regression included a dummy-coded gender variable, a centered promiscuity score, and the interaction of gender and promiscuity, with psychopathy score as the dependent variable. Linear regression showed that gender was not a significant predictor of psychopathy,  $B = 2.58$ ,  $t(70) = 1.585$ ,  $p = .117$ . Promiscuity was also not a significant predictor of psychopathy,  $B = .353$ ,  $t(70) = 1.02$ ,  $p = .311$ . However, the results indicated that there was a significant interaction between gender and promiscuity in predicting psychopathy,  $B = 2.10$ ,  $t(70) = 2.22$ ,  $p = .03$ . See Figure 4 for a graphical depiction of this interaction. This interaction suggests that females who are high in promiscuity have significantly higher scores on the measure of psychopathy than females with lower levels of promiscuity. However for males, the relationship between promiscuity and psychopathy was not significant.

The following factor analyses were performed three times each; once for the full sample, and again with only males or only females. This was done because of the apriori hypotheses that there would be gender differences in youth sexual behavior. Previous research has also found a different factor structures for boys and girls (Schrum & Salekin, 2006). Maximum likelihood extraction with Promax oblique rotation was performed on the 20 items of the APSD and the two additional sexual behavior items (promiscuity and age of first sex). Three criteria were used to determine the number of factors to rotate: the a priori hypothesis that the measure was multidimensional (both two and three factor solutions have been proposed), the scree test, and the interpretability of the factor solution. Based on the above criteria, and relying heavily on the scree plot, two factors were rotated using an oblique (Promax) rotation (see pattern matrix, Table 8). The Promax rotation procedure was indicated because there is at least 10% overlap in variance among the factors ( $r = .449$ ). Oblique rotation takes into account correlation between factors to yield an interpretable solution. Interpretation of an oblique rotation is not

straightforward; loadings are not correlations but rather a measure of the unique relationship between a factor and a variable with overlapping variance among factors partialled out. Only variables with loadings of .32 and above were interpreted. Based on these criteria, only two items failed to load on either factor and no items loaded on both factors.

Factor 1 accounted for 18.48% of the item variance, and Factor 2 accounted for 8.12% of the item variance. Together, these two factors account for 26.6% of the variance in psychopathy. There were very few discrepancies in item loadings between the two-factor model proposed by Frick et al. (1994) and the exploratory factor analysis in the current study. Therefore, the factor labels ‘Impulsivity/Conduct Problems’ and ‘Callous-Unemotional’ were retained. Based on this exploratory factor analysis, I/CP was comprised of eleven items and had a reliability of .658 for the full sample and .531 and .812 for the male and female samples respectively. Nine items made up the CU factor and had alphas of .679 (full sample), .673 (males), and .739 (females). In the current study Item 13, “I do risky or dangerous things”, loaded on the I/CP factor whereas in Frick et al.’s model it loaded on the CU factor. Item 14, “I act charming and nice to get things I want,” loaded on the CU factor in the current study instead of the I/CP factor. In Frick et al.’s model, Item 19, “I hide my feelings and emotions from others”, loaded on the CU factor (1994). In the current study Item 19 failed to load on any factor.

A second exploratory factor analysis was conducted based on more recent theory that a 3-factor solution was a better fit for the measure (Frick et al., 2000, Vitacco et al., 2003).

Maximum likelihood extraction with Promax rotation was performed on the 20 items of the APSD and the two additional sexual behavior items. The rotated solution, as shown in Table 10, accounted for 32.34% of the variance of psychopathy with Factor 1, Callous-Unemotional, accounting for 18.73% of the item variance, Factor 2, Impulsivity, accounting for 8.27% of the

item variance, and Factor 3, Narcissism, accounting for 5.35% of the item variance. Only variables with loadings of .32 and above were interpreted. Based on these criteria, two items loaded on more than one factor; APSD item 20 “I keep the same friends” which loaded on both the CU factor and the Impulsivity factor. Promiscuity cross loaded on the CU and Narcissism factors. Four items included in the exploratory factor analysis failed to load on any factor; APSD items 11, 14, 15, and age of first sex. It should be noted that in previous studies these APSD items loaded on the Narcissism factor (Frick et al., 2000; Vitacco et al., 2003). In the current study, the Callous-Unemotional and Impulsivity factors remained relatively intact and so, for ease of interpretability these factor labels will be retained. The third factor was comprised of only two unique items, APSD items 8 and 16, and one cross loaded item, promiscuity. The APSD items traditionally load on the Narcissism factor, so this third factor will continue to be referred to as Narcissism. The two APSD items on the Narcissism factor are correlated ( $r = .395$ ,  $p < .01$ ) which may mean that this third factor is reliable. However, interpretation of factors defined by only two variables is risky so this factor should be considered with caution. The CU factor as defined by this exploratory factor analysis was made up of eight items and had reliability scores of .640, .643, and .665 for the full sample, males, and females respectively. The Impulsivity factor was comprised of eight items and had alphas of .610 (full sample), .529 (males), and .712 (females). The Narcissism factor with only two items had reliability scores of .529 for the full sample, .458 for the male sample, and .717 for the female sample.

To understand the personality profile of people with varying degrees of psychopathy and varying degrees of promiscuity a Multivariate Analysis of Variance (MANOVA) was conducted. First, four groups were delineated using median splits for the psychopathy and promiscuity variables. The four groups were High-High (high promiscuity, high psychopathy), High-Low

(high promiscuity, low psychopathy), Low-High (low promiscuity, high psychopathy), and Low-Low (low promiscuity, low psychopathy). A multivariate analysis of variance (MANOVA) was conducted to assess the effects of psychopathy and promiscuity on Big 5 Personality scores (agreeableness, openness, extraversion, neuroticism, conscientiousness). Any effects of age, sex, and race were examined and controlled for in these analyses. LSD post-hoc comparisons were conducted for any significant main effects.

The test of the overall MANOVA with Big 5 scores as the dependent variables was found to be significant, allowing us to look into the main effects,  $F(5, 62) = 1.96, p = .02$ . Results are presented in Table 9 and Figure 5. A significant main effect was found for the effect of psychopathy and promiscuity on conscientiousness,  $F(3, 66) = 5.66, p = .002$ . LSD post-hoc comparisons revealed that participants in the High-High group were significantly less conscientious than participants in the High-Low and Low-Low groups. Further, participants in the Low-High group were significantly less conscientious than participants in the High-Low group and participants in the Low-Low group.

There was a significant main effect of psychopathy and promiscuity on neuroticism,  $F(3, 66) = 2.786, p = .048$ . LSD post-hoc comparisons revealed that participants in the Low-High group were significantly more neurotic than participants in the Low-Low group.

There was a significant main effect of psychopathy and promiscuity on agreeableness,  $F(3, 66) = 3.43, p = .022$ . LSD post-hoc comparisons revealed that participants in the High-High group were significantly less agreeable than both participants in the High-Low group and the Low-Low group. Participants in the Low-High group were also significantly less agreeable than participants in the Low-Low group.

There was a trend towards significance for the effect of psychopathy and promiscuity on extraversion,  $F(93, 66) = 2.66, p = .056$ . LSD post-hoc comparisons revealed that participants in the High-High group were less extraverted than participants in the Low-Low group. There was not a significant main effect of psychopathy and promiscuity on openness.

Table 1

*Sample Demographics*

	Frequency	Percentage of Full Sample (n=127)
Caucasian	12	9.45
	24	18.90
African American	22	17.32
	63	49.61
Missing Race	6	4.72
Sexually Active	27	21.26
	68	53.54
Missing Sexually Active	20	15.75
Sexually Abused	4	3.15
	1	0.79
Missing Abuse	31	21.41

Gray – males; White - females

Table 2

*Sample Study Variables Information*

	N	Range	Mean	SD	Skewness	Kurtosis
APSD Total	115	27.00	15.5478	6.05855	.406	-.071
2 Factor Model (I/CP)	119	17.00	8.6975	3.57855	-.027	-.270
2 Factor Model (CU)	125	10.00	4.4560	1.93651	.240	-.143
3 Factor Model (Narcissism)	123	13.00	4.6016	2.75723	.794	.470
3 Factor Model (Impulsivity)	122	10.00	5.1230	2.21780	.004	-.508
3 Factor Model (CU)	124	11.00	4.3065	2.00883	.720	1.271
New 2 Factor I/CP	118	18.00	9.4153	3.67325	.126	-.078
New 2 Factor CU	80	22.27	7.1771	4.45501	1.400	2.456
New 3 Factor CU	80	20.27	6.1146	4.08491	1.503	2.823
New 3 Factor Impulsivity	119	13.00	8.0168	2.95441	-.169	-.482
New 3 Factor Narcissism	124	4.00	1.0161	1.07434	.727	-.443
Conscientiousness	127	61.90	40.3533	12.19971	-.599	.204
Neuroticism	127	65.10	40.1986	11.75194	-.197	.049
Openness	127	80.13	40.2869	12.38479	-.237	1.557
Extraversion	125	70.31	41.4518	13.50340	-.690	.694
Agreeableness	125	68.76	37.6950	12.08538	-.389	.896
Promiscuity	82	11.00	2.4472	2.08672	1.458	2.047
Age when you first had sex	96	10	12.88	1.943	-.524	.232
Age	124	7	15.42	1.653	-.607	-.300
Valid N (listwise)	75					

Table 3

*Sample Study Variables Information By Gender*

	N	Range	Mean	SD	Skewness	Kurtosis
APSD Total	79	26.00	15.2911	5.44707	.601	.343
	33	27.00	16.1212	7.48230	.113	-.700
2 Factor Model (I/CP)	81	14.00	8.4321	3.14221	.107	-.119
	35	17.00	9.5714	4.29970	-.429	-.344
2 Factor Model (CU)	88	9.00	4.5000	1.79399	.568	.720
	34	8.00	4.1176	2.21243	.038	-1.202
3 Factor Model (Narc)	86	13.00	4.4884	2.62452	.797	1.025
	34	12.00	4.9412	3.18082	.663	-.586
3 Factor Model (Imp)	84	10.00	4.9762	2.12827	.032	-.328
	35	9.00	5.6000	2.36643	-.140	-.744
3 Factor Model (CU)	87	11.00	4.3448	2.05634	.991	1.856
	34	7.00	4.0588	1.87392	-.061	-.650
New 2 Factor I/CP	81	16.00	9.1852	3.24465	.075	-.154
	34	18.00	10.1471	4.50005	-.041	-.390
New 2 Factor CU	62	22.27	7.3033	4.52789	1.603	3.150
	18	13.33	6.7426	4.29040	.576	-.996
New 3 Factor CU	62	20.27	6.2549	4.21557	1.651	3.241
	18	11.33	5.6315	3.66843	.631	-.911
New 3 Factor Impulsivity	81	13.00	7.7654	2.74896	-.008	-.457
	35	12.00	8.7429	3.20242	-.448	-.452
New 3 Factor Narcissism	86	4.00	1.0349	1.05661	.603	-.657
	35	4.00	1.0286	1.15008	.926	-.082
Conscientiousness	89	50.26	40.1536	11.94605	-.414	-.378
	35	61.90	41.3195	13.11372	-1.107	1.845
Neuroticism	89	53.87	38.6039	11.60257	-.280	-.198
	35	49.38	45.0938	10.89602	.005	.766
Openness	89	80.13	39.4343	12.80189	-.288	1.985
	35	44.37	43.4731	10.81374	.054	-.238
Extraversion	87	70.31	39.6088	14.22832	-.676	.507
	35	35.32	46.2629	10.87370	-.197	-.947
Agreeableness	87	68.76	37.5661	12.66117	-.378	1.210
	35	39.69	37.7522	11.04798	-.366	-.785
Promiscuity	63	11.00	2.5842	2.21567	1.371	1.661
	19	5.83	1.9930	1.54984	1.454	1.980
Age of First Sex	68	10	12.54	2.055	-.389	-.076
	27	4	13.67	1.387	.187	-1.187
Age	89	7	15.46	1.699	-.713	-.222
	35	6	15.31	1.549	-.311	-.363

Gray – male; White - female

Table 4

*Pearson correlation coefficients for the full sample Using APSD 2 Factor Model*

		1	2	3	4	5	6	7	8	9	10
1	APSD Total	$\alpha = .773$									
2	APSD Factor 1 I/CP	.889**	$\alpha = .682$								
3	APSD Factor 2 CU	.722**	.387**	$\alpha = .251$							
4	Promiscuity	.201	.070	.210							
5	Age of First Sex	.012	-.019	-.012	.043						
6	Conscientiousness	-.547**	-.409**	-.438**	-.149	-.014	$\alpha = .302$				
7	Neuroticism	.242**	.322**	-.007	-.027	.039	-.198*	$\alpha = .629$			
8	Openness	-.111	-.025	-.239**	-.005	-.078	.251**	.085	$\alpha = .488$		
9	Extraversion	-.341**	-.239**	-.401**	-.143	.063	.520**	-.111	.389**	$\alpha = .526$	
10	Agreeableness	-.484**	-.348**	-.423**	-.274*	.015	.440**	.010	-.018	.347**	$\alpha = .412$

\*  $p \leq .05$ ; \*\*  $p \leq .001$

Table 5

*Pearson correlation coefficients by gender using APSD 2 Factor Model*

		1	2	3	4	5	6	7	8	9	10
1	APSD Total	$\alpha = .871$ $\alpha = .707$	.939**	.796**	.498*	.145	-.674**	.316	-.130	-.098	-.606**
2	APSD Factor 1 I/CP	.871**	$\alpha = .814$ $\alpha = .558$	.610**	.452	.037	-.532**	.294	-.114	-.120	-.412*
3	APSD Factor 2 CU	.720**	.347**	$\alpha = .556$ $\alpha = .072$	.482*	.262	-.557**	.033	-.296	-.079	-.536**
4	Promiscuity	.145	-.019	.140		.201	-.116	.097	-.139	-.123	-.345
5	Age of First Sex	-.069	-.097	-.077	.056		.056	-.136	-.108	.295	-.358
6	Conscientiousness	-.476**	-.379**	-.371**	-.145	-.039	$\alpha = .479$ $\alpha = .219$	-.391*	.218	.374*	.416*
7	Neuroticism	.190	.275*	.050	-.015	-.003	-.152	$\alpha = .730$ $\alpha = .556$	.212	-.154	-.180
8	Openness	-.107	-.033	-.175	.044	-.108	.251*	-.017	$\alpha = .550$ $\alpha = .445$	.462**	.053
9	Extraversion	-.497**	-.371**	-.527**	-.119	-.052	.582**	-.186	.345**	$\alpha = .612$ $\alpha = .487$	-.109
10	Agreeableness	-.448**	-.337**	-.411**	-.265*	.095	.451**	.086	-.033	.480**	$\alpha = .672$ $\alpha = .231$

Gray – male; White – female

\*  $p \leq .05$ ; \*\*  $p \leq .001$

Table 6

*Pearson correlation coefficients for the full sample Using APSD 3 Factor Model*

		1	2	3	4	5	6	7	8	9	10	11
1	APSD Total	$\alpha = .773$										
2	APSD Factor 1 NARC	.793**	$\alpha = .649$									
3	APSD Factor 2 IMP	.769**	.431**	$\alpha = .631$								
4	APSD Factor 3 CU	.575**	.157	.222*	$\alpha = .357$							
5	Promiscuity	.201	-.038	.170	.296**							
6	Age of First Sex	.012	-.045	.129	-.006	.043						
7	Conscientiousness	-.547**	-.324**	-.477**	-.403**	-.149	-.014	$\alpha = .302$				
8	Neuroticism	.242**	.155	.390**	.032	-.027	.039	-.198*	$\alpha = .629$			
9	Openness	-.111	-.020	-.044	-.199*	-.005	-.078	.251**	.085	$\alpha = .488$		
10	Extraversion	-.341**	-.189*	-.184*	-.429**	-.143	.063	.520**	-.111	.389**	$\alpha = .526$	
11	Agreeableness	-.484**	-.403**	-.221*	-.405**	-.274*	.015	.440**	.010	-.018	.347**	$\alpha = .412$

\*  $p \leq .05$ ; \*\*  $p \leq .001$

Table 7

*Pearson correlation coefficients by gender*

		1	2	3	4	5	6	7	8	9	10	11
1	APSD Total	$\alpha = .871$ $\alpha = .707$	.912**	.878**	.689**	.498*	.145	-.674**	.316	-.130	-.098	-.606**
2	APSD Factor 1 NARC	.726**	$\alpha = .785$ $\alpha = .584$	.683**	.455**	.378	.137	-.643**	.380*	-.141	.016	-.577**
3	APSD Factor 2 IMP	.710**	.289**	$\alpha = .703$ $\alpha = .598$	.459**	.375	.065	-.596**	.308	-.025	-.209	-.315
4	APSD Factor 3 CU	.538**	.049	.146	$\alpha = .379$ $\alpha = .331$	.420	.133	-.436*	.042	-.269	-.207	-.461**
5	Promiscuity	.145	-.130	.149	.270*		.201	-.116	.097	-.139	-.123	-.345
6	Age of First Sex	-.069	-.142	.115	-.036	.056		.056	-.136	-.108	.295	-.358
7	Conscientiousness	-.476**	-.178	-.445**	-.374**	-.145	-.039	$\alpha = .479$ $\alpha = .219$	-.391*	.218	.374*	.416*
8	Neuroticism	.190	.033	.377**	.062	-.015	-.003	-.152	$\alpha = .730$ $\alpha = .556$	.212	-.154	-.180
9	Openness	-.107	.010	-.090	-.143	.044	-.108	.251*	-.017	$\alpha = .550$ $\alpha = .445$	.462**	.053
10	Extraversion	-.497**	-.300**	-.227*	-.492**	-.119	-.052	.582**	-.186	.345**	$\alpha = .612$ $\alpha = .487$	-.109
11	Agreeableness	-.448**	-.345**	-.182	-.398**	-.265*	.095	.451**	.086	-.033	.480**	$\alpha = .672$ $\alpha = .231$

Gray – male; White - female

\*  $p \leq .05$ ; \*\*  $p \leq .001$

Table 8

*Two-Factor Structure of the Antisocial Process Screening Device (APSD) with Sexual Behavior Items*

Item	Component	
	1	2
<b>APSD Factor 1 (Impulsivity/Conduct Problems)</b>		
APSD Item 8 (Braggs a lot)	<b>.596</b>	-.195
APSD Item 1 (Blames others)	<b>.549</b>	.188
APSD Item 17 (Does not plan ahead)	<b>.543</b>	-.074
APSD Item 2 (Engages in illegal activities)	<b>.519</b>	.220
APSD Item 16 (More important than others)	<b>.478</b>	-.143
APSD Item 14 (Acts charming)	<b>.469</b>	-.204
APSD Item 4 (Act w/o thinking of consequences)	<b>.449</b>	.142
APSD Item 15 (Angry when corrected/punished)	<b>.415</b>	-.010
APSD Item 11 (Tease others)	<b>.413</b>	.237
APSD Item 9 (Bores easily)	<b>.403</b>	.051
APSD Item 20 (Keep same friends)	<b>-.328</b>	.257
<b>APSD Factor 2 (Callous-Unemotional)</b>		
APSD Item 7 (Keeps promises)	-.126	<b>.700</b>
APSD Item 6 (Lies easily)	.086	<b>.691</b>
APSD Item 3 (Cares about school/work)	-.094	<b>.588</b>
Promiscuity	-.277	<b>.573</b>
APSD Item 10 (Cons others)	.183	<b>.558</b>
APSD Item 18 (Concerned with others' feelings)	-.184	<b>.526</b>
APSD Item 12 (Feel bad/guilty for wrongdoings)	-.246	<b>.465</b>
APSD Item 13 (Does risky things)	.309	<b>.403</b>
APSD Item 5 (Shallow/fake emotions)	.207	<b>.340</b>
<b>No Loading</b>		
APSD Item 19 (Hides feelings)	.286	-.169
Age of sexual debut	.048	.110

*Note.* The principal factor analysis was conducted using maximum-likelihood estimation for factor extraction and an oblique (Promax) rotation. Rotated scores greater than .32 signify loading on a factor and are represented in boldface.

Table 9

*Two-Factor Correlation Matrix*

	Impulsivity/Conduct Problems	Callous-Unemotional
Impulsivity/Conduct Problems	1.00	.449
Callous-Unemotional	.449	1.00

Table 10

*Three-Factor Structure of the Antisocial Process Screening Device (APSD) with Sexual Behavior Items*

Item	Component		
	CU	Imp	Narc
<b>Callous-Unemotional</b>			
APSD Item 18 (Concerned with others' feelings)	<b>.583</b>	-.268	.100
APSD Item 6 (Lies easily)	<b>.624</b>	.234	-.124
APSD Item 12 (Feel bad/guilty for wrongdoings)	<b>.474</b>	-.200	-.062
APSD Item 3 (Cares about school/work)	<b>.473</b>	.194	-.274
APSD Item 7 (Keeps promises)	<b>.730</b>	-.149	.043
APSD Item 10 (Cons others)	<b>.621</b>	.022	.208
APSD Item 5 (Shallow/fake emotions)	<b>.445</b>	-.060	.309
Promiscuity	<b>.461</b>	.078	<b>-.393</b>
<b>Impulsivity</b>			
APSD Item 17 (Does not plan ahead)	-.194	<b>.627</b>	.056
APSD Item 4 (Act w/o thinking of consequences)	.003	<b>.597</b>	.007
APSD Item 13 (Does risky things)	.253	<b>.540</b>	-.091
APSD Item 9 (Bored easily)	-.054	<b>.503</b>	.019
APSD Item 2 (Engages in illegal activities)	.159	<b>.482</b>	.184
APSD Item 19 (Hides feelings)	-.288	<b>.438</b>	-.049
APSD Item 20 (Keep same friends)	<b>.356</b>	<b>-.432</b>	.010
APSD Item 1 (Blames others)	.169	<b>.423</b>	.241
<b>Narcissism</b>			
APSD Item 16 (More important than others)	.023	-.062	<b>.679</b>
APSD Item 8 (Braggs a lot)	-.065	.074	<b>.721</b>
<b>No Loading</b>			
Age of 1 <sup>st</sup> Sex	.080	.117	-.060
APSD Item 14 (Acts charming)	-.167	.254	.286
APSD Item 11 (Tease others)	.250	.267	.228
APSD Item 15 (Angry when corrected/punished)	.009	.251	.232

*Note.* The principal factor analysis was conducted using maximum-likelihood estimation for factor extraction and an oblique (Promax) rotation. Rotated scores greater than .32 signify loading on a factor and are represented in boldface.

Table 11

*Three-Factor Correlation Matrix*

	Callous-Unemotional	Impulsivity	Narcissism
Callous-Unemotional	1.00	.479	.176
Impulsivity	.479	1.00	.306
Narcissism	.176	.306	1.00

Table 12

*Means (and Standard Deviations) for Big Five Personality Scores by Promiscuity and Psychopathy*

Big 5 Scale	Promiscuity-Psychopathy Group			
	High-High <i>n</i> = 15	High-Low <i>n</i> = 22	Low-High <i>n</i> = 16	Low-Low <i>n</i> = 22
Conscientiousness	33.45 <sub>a</sub> (13.74)	44.34 <sub>b</sub> (9.97)	32.66 <sub>a</sub> (13.40)	46.94 <sub>b</sub> (7.62)
Neuroticism	40.73 <sub>ab</sub> (13.36)	39.67 <sub>ab</sub> (12.10)	43.88 <sub>a</sub> (9.36)	35.48 <sub>b</sub> (10.82)
Agreeableness	30.63 <sub>a</sub> (17.50)	37.09 <sub>bc</sub> (8.01)	32.48 <sub>ab</sub> (11.37)	41.02 <sub>c</sub> (9.12)
Extraversion	37.75 <sub>a</sub> (17.68)	43.50 <sub>ab</sub> (14.90)	39.01 <sub>ab</sub> (12.62)	46.66 <sub>b</sub> (10.69)
Openness	38.43 (16.06)	42.95 (13.03)	42.11 (11.02)	43.10 (12.13)

*Note.* Means in the same row that do not share subscripts differ significantly.

Figure 1

Scatterplot of Promiscuity by Psychopathy Total Score for Full Sample

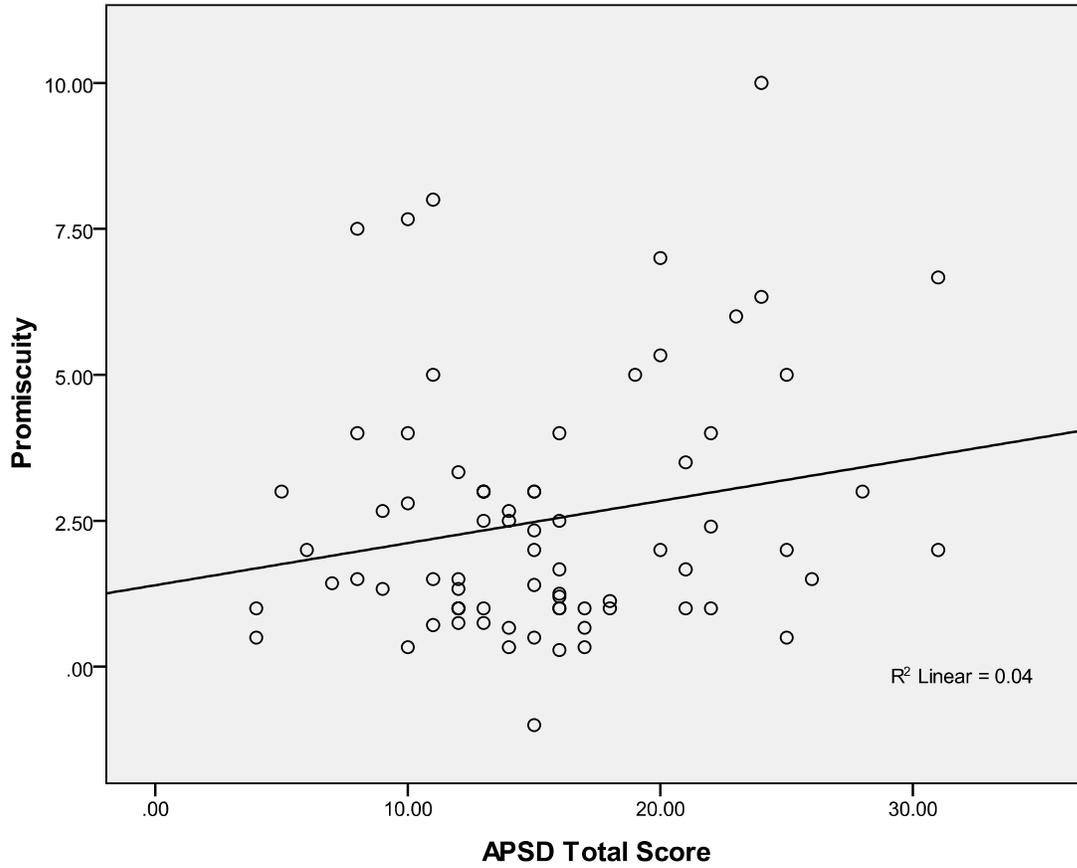


Figure 2

Scatterplot of Promiscuity by Psychopathy for Males

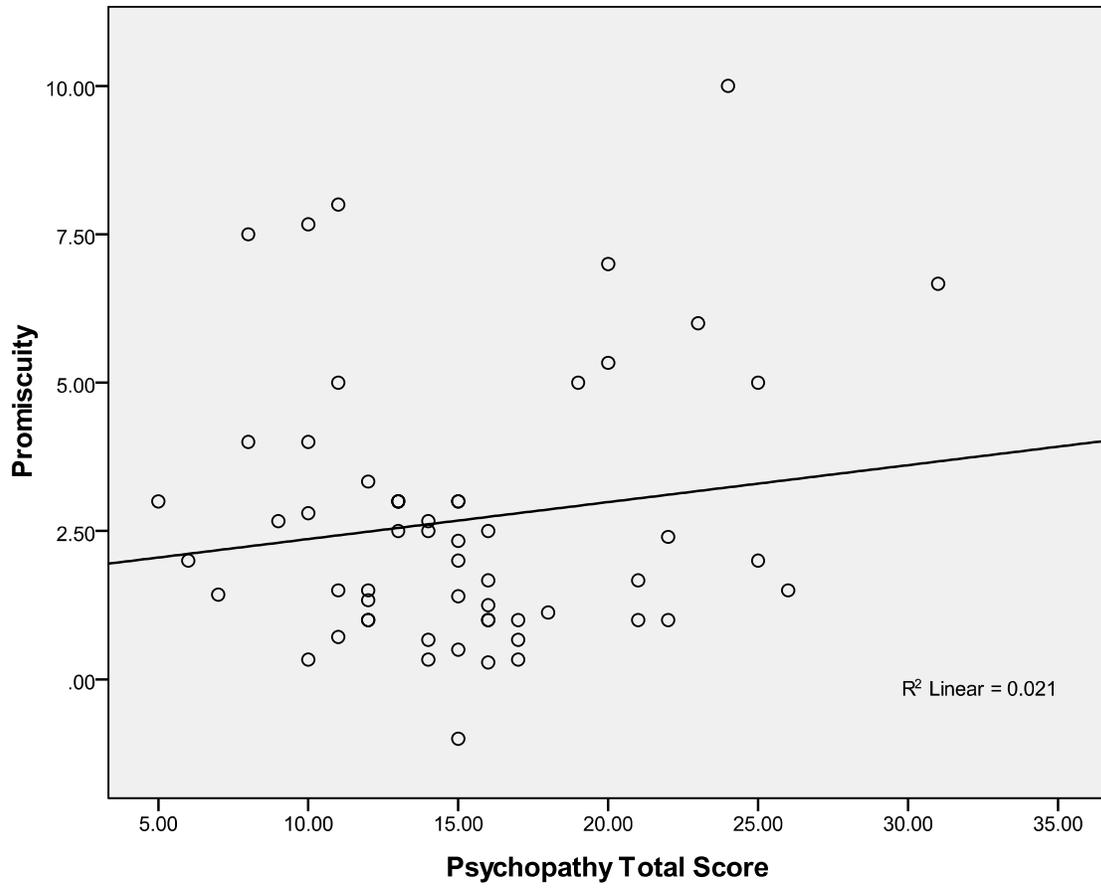


Figure 3

Scatterplot of Promiscuity by Psychopathy for Females

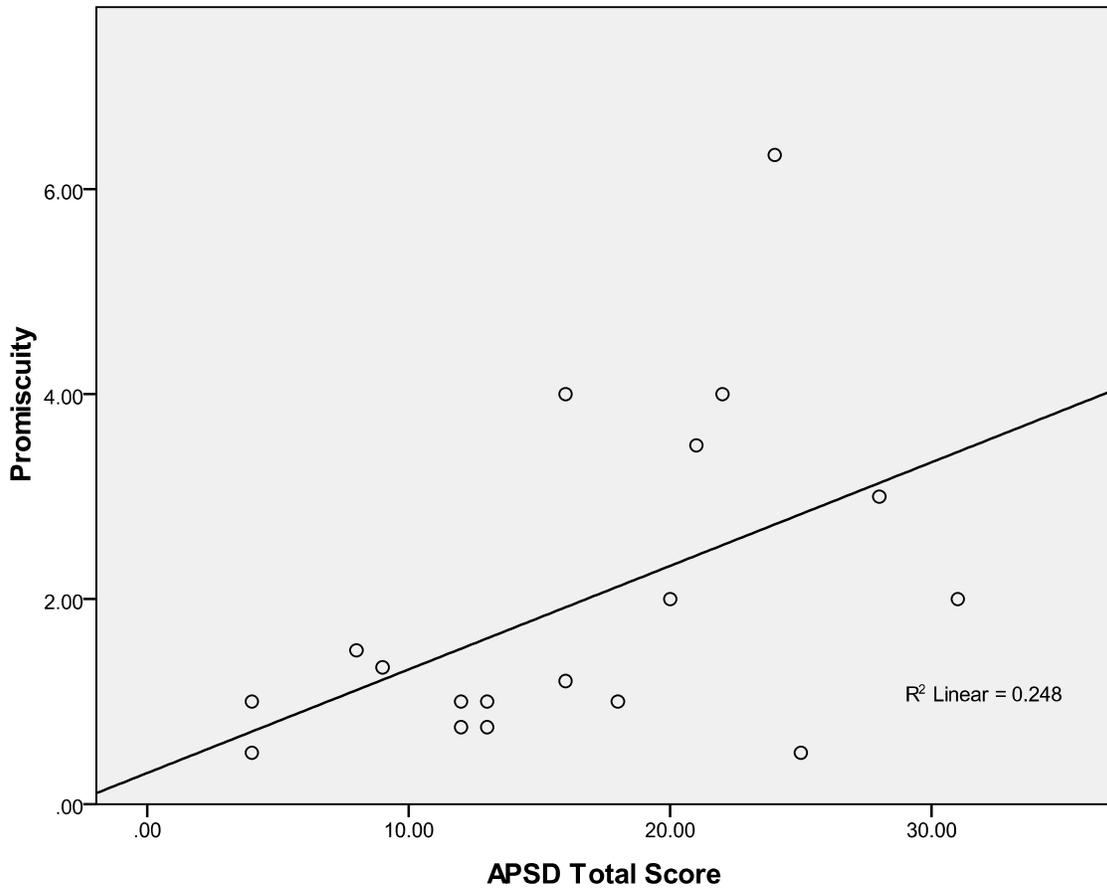


Figure 4

*APSD Total Scores as a function of Promiscuity*

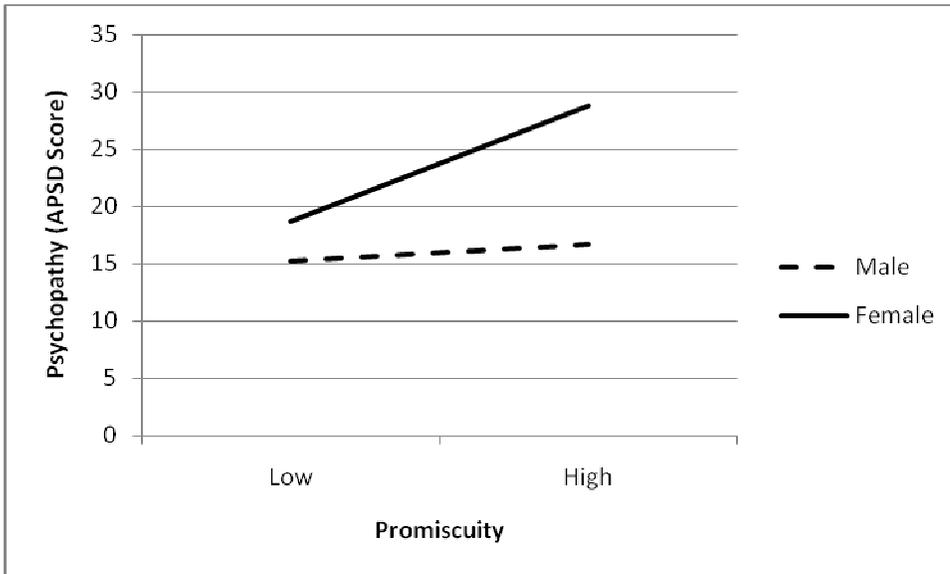
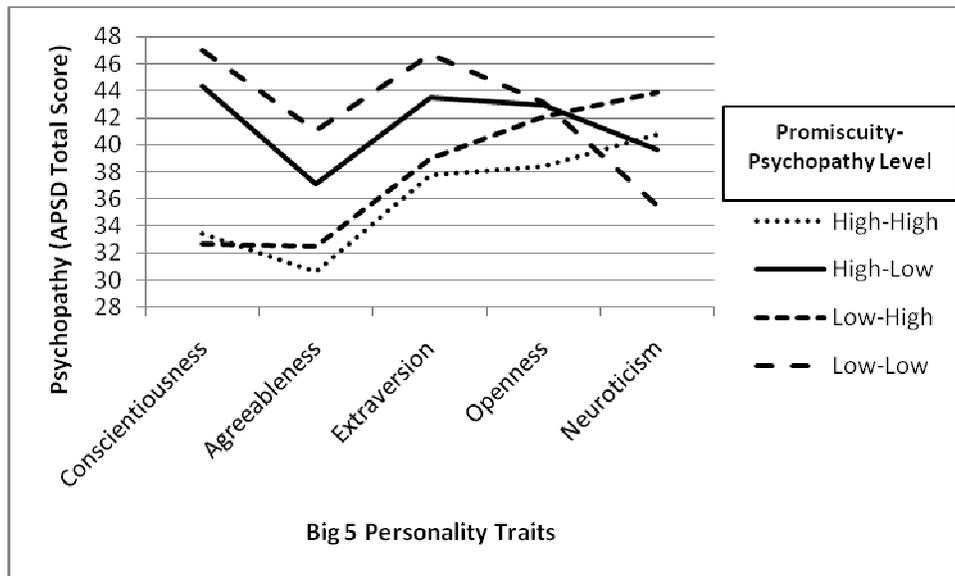


Figure 5

*APSD Total Scores as a function of Big 5 Personality*



#### 4. Discussion

Cleckley (1941, 1976) characterized the psychopath as being deficient in the areas of affective and interpersonal functioning. One such deficit he cited was that the psychopath engaged in promiscuous sexual behavior. From the time of Cleckley's initial depiction of the psychopath, the disorder has come to be defined by a series of antisocial behaviors, as well as the personality characteristics defined in his seminal work on psychopathy, *The Mask of Sanity*. Through the years, and incarnations of this disorder, promiscuous sexual behavior has remained a defining feature of psychopathy. In the past twenty years, research on psychopathy has increased at a rapid rate. Therefore, it is curious to note, that almost no research exists on one of the original core features, promiscuous sexual behavior. What research does exist has found that the two items assessing sexual behavior on the Psychopathy Checklist-Revised (PCL-R), promiscuous sexual behavior and multiple unsuccessful marriages, have failed to load on any factor in the two, three, or four factor models. Despite these findings, both items have been retained on the PCL-R and as part of the construct of psychopathy.

The downward extension of psychopathy to children and adolescents has come with a great deal of controversy. The assumption has been that the presentation of the disorder in youth will closely resemble the disorder in adulthood. It is with this, perhaps faulty, assumption that promiscuous sexual behavior has been included in the Psychopathy Checklist – Youth Version (PCL:YV). There has been no research employing youth showing that juveniles with psychopathic traits engage in promiscuous sexual behavior. The current study sought to fill the

gap in this research and provide support for the inclusion or exclusion of promiscuity as a defining feature of juvenile psychopathy.

With such little research investigating promiscuity and psychopathy, a necessary first step is to explore relations between the variables via zero-order correlations. In the full sample and the all-male sample, promiscuity was not related to psychopathy, however, for females, promiscuity was positively related to both APSD total score and the CU factor (Frick's two-factors). These results follow the findings of past research which has suggested that promiscuous sexual behavior would be a more salient predictor of psychopathy for females. These preliminary analyses lend some support to the idea that promiscuity is related to psychopathy for females. Similar relations were also investigated using the scores as defined according to Frick's three-factor model. Using the scores derived according to this model, promiscuity was positively related to the CU factor for the full sample and the female sample. In the male sample, promiscuity was positively related only to the APSD total score. These initial findings suggest that a more in depth look at the relation between promiscuity and psychopathy is warranted.

The correlation matrix also gave credence to other predictions made about the personality characteristics of youth with psychopathic traits and youth who engage in promiscuous sexual behavior. Based on the adult literature, these youth were predicted to be low in the Big 5 factors of conscientiousness and agreeableness and high in extraversion. The correlations indicate that these relationships are present. While the correlations indicate that APSD total score is negatively related to conscientiousness and agreeableness, they also indicated a significant negative correlation with extraversion, the opposite direction of the predicted direction. As for the correlation between promiscuity and the Big 5 personality factors, as predicted, the preliminary analyses suggest a negative relation with agreeableness and conscientiousness. This

seems to mirror the findings in adults that promiscuity and psychopathy are both associated with low Big-5 agreeableness and conscientiousness. While the findings in adults suggest that there would be a relationship between promiscuity and psychopathy, that relationship has not been tested. The results of the correlation analyses suggest that, at least in children, they are related.

The first hypothesis predicted that the age of first sex would negatively predict psychopathy; people who started having sex at younger ages would have higher psychopathy scores than those who had their sexual debut later. Results of the regression analysis failed to support this hypothesis in the current study. There were no significant differences between people who had their sexual debut earlier versus later. This hypothesis was derived from recent research by Harris et al. (2007) that suggested that precocious sexual behavior may be a better predictor of psychopathy than promiscuous sexual behavior. There are several possibilities to explain why the findings from the current study do not match Harris et al.'s results. One possible explanation for the discrepant findings may be the different samples. The current study utilized a sample of male and female juveniles recruited from a regional detention facility. The sample in the Harris et al. study consisted of 512 adult male sex offenders who had offended against a child or an adult female. Harris et al. had an all male sample whereas the current sample contained females, albeit very few. However, sample gender differences are unlikely to be the difference responsible for the disparate findings. Even when females were removed from the sample, age of sexual debut did not significantly predict psychopathy. But, the fact that the Harris et al. sample was composed solely of sex offenders may affect the results of the study. Sex offenders, as a group, have engaged in deviant sexual behavior. Furthermore, a review of the literature shows that pedophiles generally score low on measures of psychopathy (Quinsey et al., 1995; Harris et al., 2004). Results from a study with a sample selected specifically for their common sexual

deviancies would be expected to differ from a general detained sample with regards to sexual behavior. Because of the unique sample employed in the Harris et al. study, it seems as though they are poorly poised to make a general statement about the sexual behavior of people with psychopathic traits.

The discrepant finding might also be attributed to the difference between an adult and a juvenile sample. Whereas in the Harris et al. study all of the participants had been sexually active, that was not the case for the current study sample. In the current study, approximately 75% of the subjects reported that they were, or had been sexually active, 9% reported never having been sexually active, and 16% of the sample did not provide data for these items. While collecting this data in youth is particularly interesting because it captures them at a time when they are just beginning their sexual careers, it also means that a portion of the sample will be excluded from analyses of age of first sexual debut.

The second hypothesis examined the long-standing notion that promiscuous sexual behavior is part of the construct of psychopathy. In line with theory, it was predicted that there would be a positive relationship between psychopathy and promiscuity. This hypothesis was partially supported by the results of regression analysis. Initially, promiscuity was characterized as a continuous variable and regression was used in data analysis. From this analysis, promiscuity emerged as a marginally significant predictor of psychopathy in the full sample ( $p = .07$ ). This trend is consistent with theory which has maintained promiscuous sexual behavior as a feature of psychopathy. The weakness of this relationship might be due to a differential relationship for males and females, as predicted by hypothesis three.

The third hypothesis was that promiscuity might be a more salient predictor of psychopathy for females than males. This also allowed for a richer understanding of the possible

link between psychopathy and promiscuity; the trend uncovered in the second hypothesis. Results of a hierarchical regression showed that this prediction was supported by the current study; females high in promiscuity scored significantly higher on the psychopathy measure than females low in promiscuity. This pattern was not found with the males in the sample; level of promiscuity did not significantly predict psychopathy score. This hypothesis is consistent with research indicating that promiscuous sexual behavior and unstable relationships, currently the two items measuring psychopathy on the PCL-R, were more salient predictors for psychopathic females (Salekin et al., 2001).

This gender discrepancy is not altogether surprising since past research has suggested that females and males experience psychopathy differently. However, the reason for this difference in males and females with psychopathic traits remains unknown. One suggestion has been that the measures used to assess psychopathy are tapping the construct with a male bias. The measures were created, tested, and normed with male samples. The current study utilized the APSD which, unlike the PCL:YV, does not contain any items assessing sexual behavior. This provided an opportunity to look for relations between self-reported sexual behavior and psychopathy without the confound introduced by using the PCL:YV to assess psychopathy.

The present study is the first to investigate the relation between promiscuity and psychopathy in youth and the first to show a gender difference in this relation. One possible explanation for this finding may be the role and impact of gender stereotypes on male and female sexual behavior. There is a double standard when it comes to sex; a female with multiple sexual partners is generally viewed unfavorably whereas it is accepted, potentially even expected, that males have multiple partners. In social psychology there is research showing that both males and females endorse a Social Norm Hypothesis; both males and females see female promiscuous

behaviors as deviant which results in negative attributions towards promiscuous women (Clayton & Trafimow, 2007). These same negative attributions are not associated with males who engage in promiscuous sexual behavior. So, when a woman engages in promiscuous sexual behavior she is violating strongly held societal normative expectations. It is the belief of the author that girls who violate societal norms are different than girls who adhere to the social code. This difference may be a callous or uncaring personality type; hallmark traits of psychopathic personalities. This hypothesis is substantiated by the significant correlations between promiscuity and the CU factor (both two and three factor models) in the female sample. Because engagement in promiscuous sexual behavior is not in violation of normative behavior for men, promiscuity is not as salient a predictor of psychopathy for males.

The fourth hypothesis predicted that factor analysis would show that promiscuous sexual behavior and age of sexual debut would load with the items that comprise the Callous-Unemotional factor on the APSD. Guided by theory, two exploratory factor analyses were conducted restricting the data first to the two, and next to the three, factor solutions. Neither the two nor three factor models fit the data perfectly; many items loaded poorly on factors. Moreover, several items failed to load on any factor. Age of first sex failed to load on any factor in either model suggesting that it fits poorly within the construct of psychopathy. Promiscuous sexual behavior functioned somewhat better. In both the two and three factor models, this item loaded, as predicted, on the Callous-Unemotional factor; Factor 2 in the two-factor solution and Factor 3 in the three-factor solution. However, when the exploratory factor analysis was restricted to three factors, promiscuity cross-loaded on the Narcissism Factor as well as the Callous-Unemotional Factor. Promiscuity loaded negatively on the Narcissism Factor. In the current study, the two-factor exploratory factor analysis was a better fit for the data. Although

the three-factor model accounted for more variance in psychopathy (32%) than the two-factor model (26%), it seems to generally be a worse fit for the data. This conclusion is based on the fact that, in the two-factor model, only one APSD item failed to load (item 19) and no items cross-loaded. When the data were restricted to three factors, three APSD items failed to load on any factor, and two items loaded on more than one factor. In the three-factor solution, the item loadings were generally lower. It is important to note that to accurately measure which model was a better fit for the data, a confirmatory factor analysis must be conducted.

The present study lends more support for the two-factor model than for the three factor model. With regards to the three factor model, many items failed to load on the predicted factor, or failed to load on any factor. The problems were the most pronounced in the Narcissistic Factor where only two items loaded on the predicted factor, two items loaded on a different factor than was predicted, and three items failed to load on any factor. The three factor solution for the APSD seems to have an unstable factor structure, suggesting it may not be a good way to conceptualize the underlying construct of psychopathy. The fact that promiscuity loaded on the predicted factor is promising for the inclusion of promiscuous sexual behavior as an aspect of psychopathy.

There has been significant debate regarding the inclusion of behaviors thought to result from a psychopathic personality in the construct itself. This question follows the format of so many difficult questions; what came first. In the current study, the question is whether psychopathy causes people to engage in promiscuous sexual behavior or if promiscuity is one part of psychopathy. Unfortunately, the current study, nor any study done to date, is capable of answering this question. The current study does yield some important information which suggests that promiscuous sexual behavior is more than a byproduct of a psychopathic

personality. In both the two and three-factor solutions, promiscuity loaded on the Callous-Unemotional factor, the factor containing core personality features of the disorder. If promiscuity was a behavior resulting from a specific constellation of personality features, it would make more sense for it to load with other outcome features like “engages in illegal activities.” That it loads with other personality traits may suggest that promiscuous sexual behavior is a good indicator of a psychopathic personality, and not merely an outcome variable.

The final hypothesis sought to confirm the personality profile of psychopathic individuals in a juvenile sample. In adult samples, individuals high in either psychopathy or sexual promiscuity shared a common Big Five Personality profile; low conscientiousness, low agreeableness, and high extraversion. The current study, employing MANOVA, did not support the same personality profile for individuals with psychopathic traits and those who engage in sexually promiscuous behavior. Youths were split into four groups based on level of promiscuity (high or low) and level of psychopathy (high or low). As predicted, youths high in psychopathy demonstrated significantly lower levels of conscientiousness and agreeableness than youths with lower levels of psychopathy. While it was predicted that both high promiscuity and high psychopathy would share this personality profile, the results indicate that high psychopathy is really driving the effect. This particular pattern of Big Five Personality traits is evident in both groups that contain youths scoring high in psychopathy, but not in both groups with high promiscuity levels. If promiscuity was having an equal effect as psychopathy in determining personality features, every group but the group containing youths low in both psychopathy and promiscuity should have shown a similar pattern. However, the expected personality profile is only seen in the high psychopathy groups suggesting promiscuity is not responsible for the findings. Alternatively, it is possible that psychopathy has more influence on personality than

does promiscuity. Thus, being low in psychopathy may overpower any effects of promiscuity in determining personality features.

The current study is important in that it is one of the first to specifically investigate the role of promiscuous sexual behavior in relation to psychopathy and the first to look at these features in youth. While promiscuity has remained a defining feature of psychopathy, there has been a dearth of evidence to show that promiscuity is an important aspect of the psychopathy construct. Although the link has been theorized, this study is the first to demonstrate that this relation exists. Theory further postulated a stronger relation between promiscuity and psychopathy in female samples, a finding which was substantiated in the current study. This finding is important because psychopathy measures have been criticized for being biased towards males. Identifying items which accurately tap psychopathic features in females will hopefully improve measures ability to discriminate females with psychopathic traits. The current study found a similar personality profile for youth with psychopathic traits as has been demonstrated in adults with the notable exception of a non-significant relation with extraversion in the MANOVA and a negative relation based on the zero-order correlations, the opposite of what was predicted. Of note is also what the current study did not find; an inverse relation between age of first sex and psychopathy. While it had been proposed by Harris et al. (2007) that young age at first sex would be a more salient predictor of psychopathy than promiscuous sexual behavior, this relation was not borne out in the current study. The current study shed some light on the factor structure of psychopathy and promiscuous sexual behavior in youth. Recent factor analytic work using the APSD has suggested that psychopathy is comprised of three factors; Narcissism, Impulsivity, and Callous-Unemotional. However, the current study supported the original two-factor solution.

While the results of this study provide a necessary first step at understanding the relation between psychopathy and sexual behavior in juvenile samples, it is important to consider these results in light of the study's limitations. The overall sample was fairly small and the sample of females was very small. Some of the most exciting findings resulted from gender differences. In light of this uneven distribution of males and females, these findings should be used with caution until they can be replicated in a larger sample. Another limitation of the current study is the lack of ethnic diversity in the sample. The sample contained only African American and Caucasian participants. While the current study did not find any differences between race, the results may not generalize to other ethnic groups.

Despite limitations, the results of the current study are promising and pave the way for future research looking at promiscuous sexual behavior and psychopathy. This is especially important because promiscuous sexual behavior may prove to be a meaningful item for identifying females with psychopathic traits. To supplement these findings, future research should be conducted with larger samples, especially samples including more females. The current study only captured general information related to youth sexual behavior. For example, what constituted sex was never defined for participants so they may have been reporting on sexual behaviors other than intercourse. Future research might benefit from collecting more specific information regarding the sexual practices of youth as these may prove to be salient predictors of psychopathy. A deeper understanding of youth sexual behavior may also help inform public health interventions targeted at this demographic.

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## Appendices

## Appendix A

<b>APSD</b>
-------------

Please read each statement and decide how well it describes you **in general** (across your whole life). Mark your answer by circling the appropriate number (0-2) for each statement. Do not leave any statement unrated.

“In general . . .”	Not at all True	Sometimes True	Definitely True
1. I blame others for my mistakes.	0	1	2
2. I engage in illegal activities.	0	1	2
3. I care about how well I do at school/work.	0	1	2
4. I act without thinking of the consequences.	0	1	2
5. My emotions are shallow and fake.	0	1	2
6. I lie easily and skillfully.	0	1	2
7. I am good at keeping promises.	0	1	2
8. I brag a lot about my abilities, accomplishments, or possessions.	0	1	2
9. I get bored easily.	0	1	2
10. I use or “con” other people to get what I want.	0	1	2
11. I tease or make fun of other people.	0	1	2
12. I feel bad or guilty when I do something wrong.	0	1	2
13. I do risky or dangerous things.	0	1	2
14. I act charming and nice to get things I want.	0	1	2
15. I get angry when corrected or punished.	0	1	2
16. I think I am better or more important than other people.	0	1	2
17. I do not plan ahead or I leave things until the “last minute.”	0	1	2
18. I am concerned about the feelings of others.	0	1	2
19. I hide my feelings or emotions from others.	0	1	2
20. I keep the same friends.	0	1	2

## Appendix B

<b>IASR-B5</b>
----------------

Below is a list of words that are used to describe people's personal characteristics.  
Please rate how accurately each word describes *you* as a person. Put the number (1-8) beside each word.

<u>1</u> Extremely Inaccurate	<u>2</u> Very Inaccurate	<u>3</u> Quite Inaccurate	<u>4</u> Slightly Inaccurate	<u>5</u> Slightly Accurate	<u>6</u> Quite Accurate	<u>7</u> Very Accurate	<u>8</u> Extremely Accurate
(001)    ___    Introverted	(022)    ___    Anxious	(043)    ___    Forceful					
(002)    ___    Assertive	(023)    ___    Abstract-thinking	(044)    ___    Wily					
(003)    ___    Timid	(024)    ___    Philosophical	(045)    ___    Undisciplined					
(004)    ___    Unargumentative	(025)    ___    Tender	(046)    ___    Sly					
(005)    ___    Organized	(026)    ___    Hardhearted	(047)    ___    Systematic					
(006)    ___    Boastful	(027)    ___    Unneighbourly	(048)    ___    Self-conscious					
(007)    ___    Softhearted	(028)    ___    Worrying	(049)    ___    Ironhearted					
(008)    ___    Ruthless	(029)    ___    Literary	(050)    ___    Thorough					
(009)    ___    Kind	(030)    ___    Uncharitable	(051)    ___    Untidy					
(010)    ___    Tense	(031)    ___    Uncunning	(052)    ___    Unbold					
(011)    ___    Highstrung	(032)    ___    Hypersensitive	(053)    ___    Neighbourly					
(012)    ___    Cheerful	(033)    ___    Extraverted	(054)    ___    Unorderly					
(013)    ___    Unsparkling	(034)    ___    Unphilosophical	(055)    ___    Shy					
(014)    ___    Tricky	(035)    ___    At ease	(056)    ___    Undemanding					
(015)    ___    Unconventional	(036)    ___    Orderly	(057)    ___    Meek					
(016)    ___    Inefficient	(037)    ___    Cocky	(058)    ___    Reflective					
(017)    ___    Unaggressive	(038)    ___    Planful	(059)    ___    Inquisitive					
(018)    ___    Unreflective	(039)    ___    Dominant	(060)    ___    Unwily					
(019)    ___    Relaxed	(040)    ___    Unsearching	(061)    ___    Unsystematic					
(020)    ___    Calculating	(041)    ___    Anti-social	(062)    ___    Self-assured					
(021)    ___    Unmoody	(042)    ___    Perky	(063)    ___    Dissocial					

<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>
Extremely	Very	Quite	Slightly	Slightly	Quite	Very	Extremely
Inaccurate	Inaccurate	Inaccurate	Inaccurate	Accurate	Accurate	Accurate	Accurate

(064)	___	Jovial	(085)	___	Friendly	(106)	___	Unreliable
(065)	___	Domineering	(086)	___	Cunning	(107)	___	Outgoing
(066)	___	Neat	(087)	___	Self-confident	(108)	___	Sympathetic
(067)	___	Unabstract	(088)	___	Unauthoritative	(109)	___	Boastless
(068)	___	Tenderhearted	(089)	___	Uncrafty	(110)	___	Unnervous
(069)	___	Unworrying	(090)	___	Unsympathetic	(111)	___	Unliterary
(070)	___	Unimaginative	(091)	___	Charitable	(112)	___	Imaginative
(071)	___	Tidy	(092)	___	Coldhearted	(113)	___	Persistent
(072)	___	Warmthless	(093)	___	Guilt-prone	(114)	___	Reliable
(073)	___	Unsly	(094)	___	Nervous	(115)	___	Crafty
(074)	___	Enthusiastic	(095)	___	Broadminded	(116)	___	Unagitated
(075)	___	Firm	(096)	___	Distant	(117)	___	Stable
(076)	___	Impractical	(097)	___	Forceless	(118)	___	Uninquisitive
(077)	___	Uncalculating	(098)	___	Efficient	(119)	___	Unsociable
(078)	___	Questioning	(099)	___	Fretful	(120)	___	Unartistic
(079)	___	Accommodating	(100)	___	Overexcitable	(121)	___	Self-disciplined
(080)	___	Uncheery	(101)	___	Gentlehearted	(122)	___	Forgetful
(081)	___	Uncomplex	(102)	___	Disorganized	(123)	___	Cruel
(082)	___	Calm	(103)	___	Unplanful	(124)	___	Bashful
(083)	___	Conventional	(104)	___	Unanxious			
(084)	___	Individualistic	(105)	___	Unself-conscious			

Appendix C

**RELATIONSHIP HISTORY**

1. Were you ever sexually abused?     NO     YES

2. Are you/have you ever been sexually active?     NO     YES

If yes:

3. Age when you first had sex: \_\_\_\_\_

4. # of different sexual partners: \_\_\_\_\_

5. Usually, are the people you've had sex with:

Casual/One night stands     Seeing for awhile/In a relationship

6. Have you ever had sex with someone who did not want to have sex with you?

NO             YES If yes, # of times: \_\_\_\_\_