

There are differences between men and women with psychopathic personality traits regarding  
sub-types of psychopathy, criminality, aggression and victimization

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### Abstract

Psychopathy is found in incarcerated populations and in the general population, among men and women. This study investigated if there were any gender differences between men and women with heightened levels of psychopathic traits regarding psychopathy factor scores, criminality, aggression and victimization. A randomized sample of 2500 mixed-sex (52.6 % women) participants ( $M=22.15$ ;  $SD=1.38$ ) from the general population, aged 20-24, was used. Results showed that women with psychopathic personality traits had significantly higher behavioral tendencies (e.g., impulsivity) on psychopathy than men with psychopathic personality traits. Men scored higher on violent criminal offences and criminal versatility and men and women differed in aggressive behavior and victimization. Gender differences in psychopathy features may create different needs for treatment.

*Keywords:* Psychopathy, gender differences, criminality, aggression, victimization.

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Det finns skillnader mellan män och kvinnor med förhöjda nivåer av psykopatiska drag när det gäller psykopatiska egenskaper, kriminalitet, aggression och utsatthet

### **Sammanfattning**

Personer med psykopati finns både bland kliniska populationer och bland normalpopulationen, bland män och kvinnor. Den här studien undersökte om det fanns könsskillnader mellan män och kvinnor med förhöjda nivåer av psykopatiska drag när det gäller psykopatifaktorer, kriminalitet, aggression och utsatthet. Ett slumpmässigt urval från normalpopulationen med både män och kvinnor (52,6 %), ålder 20-24 år ( $M=22,15$ ;  $SD=1,38$ ), användes. Resultaten visade att kvinnor med psykopatiska egenskaper har signifikant högre beteendemässiga drag av psykopati än män med psykopatiska egenskaper. Män uppvisade högre nivåer av våldsam kriminalitet och mångfald i brott. Män och kvinnor med psykopatisk personlighet uppvisade olika aggressiva beteenden och rapporterade olika typer av utsatthet. Könsskillnader i psykopatiska egenskaper kan skapa olika behov av behandling.

**Nyckelord.** Psykopati, könsskillnader, kriminalitet, aggressivitet, utsatthet.

**There are differences between men and women with psychopathic personality traits regarding sub-types of psychopathy, criminality, aggression and victimization**

It is the general view that psychopaths are career criminals associated with the most heinous crimes (Forth, Brown, Hart, & Hare, 1995). However, the reality is different, as psychopathy occurs in both men and women, among incarcerated populations as well as in the general population, which makes psychopathy an important personality deficit to investigate (Salekin, Rogers, Ustad, & Sewell, 1998; Sevecke, Lehmkuhl, & Krischer, 2009; Verona, Sprague, & Javdani, 2012). Previous research examining psychopathy has mainly focused on incarcerated male populations (e.g., Cima & Raine, 2009; Hicks, Vaidyanathan, & Patrick, 2010; Salekin et al., 1998). Gender differences in psychopathy have to date received little attention, making it an area that warrants expansion. In order to improve treatment efforts a better understanding of the underlying etiology of psychopathy is important (Salekin, 2002). The present study will investigate whether there are any gender differences regarding various features of psychopathy, criminality, aggression and victimization among people with psychopathic personality traits using data from a large population-based sample.

Psychopathy is a personality deficit characterized by interpersonal, affective and behavioral properties where personality traits like grandiose sense of self worth, manipulative, lack of remorse or guilt, short-tempered/poor behavioral controls, impulsivity, callous/lack of empathy, proneness to boredom, failure to accept responsibility for own actions, parasitic life-style, early behavior problems and lack of realistic long-term plans are some of the most salient (Andershed & Skeem, 2004; Harpur, Hare, & Hakstian, 1989). Less than 1 percent of the general population is estimated to exhibit psychopathy and the deficit is more prevalent among males than females. Among incarcerated individuals, the number of psychopaths is much higher compared to the general population (Hare, 1991, ref. in Lalumière, Harris & Rice, 2001). To assess psychopathic traits, clinicians and researchers use self-report

questionnaires and interview methods, i.e., The Psychopathy Checklist-Revised (PCL-R; Hare 1991, ref. in Miller, Lynam, Widiger, & Leukefled, 2001) or the Youth Psychopathic Traits Inventory (YPI; Andershed, Kerr, Stattin, & Levander, 2002). The PCL-R and YPI are tools that are widely used, but they were developed to be used in different populations. PCL-R was developed to identify psychopaths in clinical populations and YPI was developed to identify psychopathic individuals in the general population (Anderhed et al., 2002; Hare, 2003, ref. in Vien & Beech, 2006).

Different definitions are used to describe the psychopathic factor structure of personality traits. There is a two-factor model which divides the psychopathic personality traits into two factors *the affective and interpersonal factor* (e.g., grandiosity, lack of remorse or guilt, lack of empathy), and *the behavioral factor* (e.g., parasitic life-style, lack of realistic long-term plans, impulsivity, criminal versatility). The model describes psychopaths as antisocial and criminal individuals (Cooke, Michie, & Hart, 2006; Harpur et al., 1989). There is also a three-factor model which divides the psychopathic traits into three factors with *the interpersonal factor* (e.g., superficial charm, grandiose sense of self worth, manipulative), *the affective factor* (e.g., lack of remorse or guilt, shallow affect, failure to accept responsibility for own actions) and *the behavioral factor* (e.g., need for stimulation/proneness to boredom, impulsivity, lack of realistic long-term goals). This model has left out those traits and behaviors that can be related to an antisocial lifestyle, e.g., criminality (Cooke et al., 2006), which differentiates this model from the two factor model. The three factor model is better at describing psychopathic personality traits in the general population and is better at capturing psychopathic traits in women than the two factor model (Jackson, Rogers, Neumann, & Lambert, 2002).

Psychopathy is found in both men and women (Lee & Salekin, 2010; Lehmann & Ittel, 2012) but several studies have shown that psychopathic men and women differ regarding

various features, e.g., risky driving, shame, stress reaction (see Hicks et al., 2010; Lee & Salekin, 2010). However, limited research has examined gender differences concerning the different psychopathy factors, i.e., *interpersonal, affective and behavioral dimension*. Men generally score higher on psychopathy measures than women (Forth et al., 1995; Hicks et al., 2012; Verona et al., 2012) in the forensic settings as well as the general population (Forth et al., 1995; Grann, 2000). However, there is limited research examining gender differences across the three psychopathy dimensions; the current study aimed at filling this gap in the literature.

Psychopaths are estimated to constitute about 20 % of the incarcerated population (Hare, 1991, ref. in Lalumière et al., 2001). Males and females with psychopathy scoring high on behavioral psychopathic traits exhibit more criminal activity compared to men and women with more interpersonal and affective psychopathic traits (Hicks et al., 2010; Lee & Salekin, 2010). Violent recidivism has been found to be higher among psychopathic male offenders compared to non-psychopathic male offenders (Harris, Rice, & Cormier, 1991). Psychopathic women's recidivism rate has been found to be lower than the recidivism rate among psychopathic men (Salekin et al., 1998). However, there is limited research examining gender differences in the types of criminal offences committed by these individuals.

Short-temper and poor behavioral controls are two core traits of psychopathy (Harpur et al., 1989). Psychopathic individuals are more aggressive than non-psychopathic individuals and in institutionalized samples verbal, peer and covert aggressions are highly correlated to psychopathy (Stafford & Cornell, 2003). Women with higher levels of psychopathic traits tend to be more aggressive than women with lower levels of psychopathic traits, and their aggression tends to be more internalized (e.g., self harm), compared to psychopathic men (Lehmann & Ittel, 2012; Sevecke et al., 2009). Psychopathic men's aggressive behavior tends to have intensions of selfishness and goal-direction, i.e., aggressive behavior with forethought

and planning, also referred to as proactive aggression (Cima & Raine, 2009). Positive correlations with externalizing behavior and negative correlations with internalizing problems have been found among psychopathic men. These results also showed that psychopathic men are more prone to use physical violence than psychopathic women (Sevecke et al., 2009). Aggressive behavior is thus different between psychopathic men and women; men's aggression is thought to be more externalizing whereas women's aggression is thought to be more internalizing.

Exposures to different stressful life events in childhood, i.e., victimization, have been shown to increase the risk for psychopathy (Weizmann-Henelius et al., 2010). Men exposed to childhood abuse in a low amount have reported lower scores of psychopathy than men exposed to high levels of abuse. (Lang, af Klinteberg, & Alm, 2002). A link between having experienced physical abuse in childhood and psychopathy has been found among psychopathic men, but this link was not found among psychopathic women. Sexual abuse has been found to be more commonly experienced among psychopathic women and sexual abuse is linked to psychopathy, but these findings are not consistent with findings among psychopathic men (Weizmann-Henelius et al., 2010). No differences in psychopathy scores have been found between abused and non-abused girls. Among boys higher scores of psychopathy were found for the abused boys compared to the non-abused boys (Krischer & Sevecke, 2008). Abuse in childhood is more connected to psychopathy in women than in men (Miller, Watts, & Jones, 2011). There are suggestions that men and women with psychopathy are experiencing different kinds of victimization.

The purpose of the present study is to investigate if there are any gender differences regarding psychopathy total and sub-scores of the three factor psychopathy model, and also whether there are gender differences in various forms of criminality, aggression and victimization. These concepts were selected because of their practical relevance, i.e.,

differences between males and females in these concepts could for example imply different prevention or treatment needs. To date limited research examining gender differences regarding these concepts has been conducted and the present study aimed to fill this gap by investigating whether there are gender differences regarding these concepts. Earlier studies have mostly used samples of incarcerated psychopathic men and women, with the majority of psychopathic men. This study will use a randomized sample with men and women from the general population.

### **Research Questions**

Are there gender differences between individuals with psychopathic personality traits and those without psychopathic personality traits in terms of:

- a) Levels of psychopathic traits; scores of interpersonal, affective, behavioral sub-scores of psychopathy and the total score?

Hypotheses: Men with psychopathic personality traits will score higher than women with psychopathic personality traits on the total and all sub-scores of psychopathy.

Men and women with psychopathic personality traits score higher than men and women without psychopathic personality traits on the total and all sub-scores of psychopathy.

- b) Criminality; property offences (minor and serious), violent acts (minor and serious) and versatility?

Hypotheses: Men with psychopathic personality traits will report a higher rate of all types of criminal offences including versatility than women with psychopathic personality traits. Both men and women with psychopathic personality traits will report higher rates of criminal offences than men and women without psychopathic personality traits.



- c) Aggression; physical and verbal aggression anger, hostility, reactive and proactive aggression in relation to others and intentions of self-harm (internalizing problems)?

Hypotheses: Men and women with psychopathic personality traits will report different aggressive behavior, men will report more externalizing behavior and women will report more internalizing problems. Men and women with psychopathic personality traits will report higher rates of aggression than men and women without psychopathic personality traits.

- d) Victimization in life; property offences, physical and verbal violence, neglect and sexual abuse?

Hypotheses: Men and women with psychopathic personality traits will report different experience of victimization, men will report more physical abuse and women will report more sexual abuse. Men with psychopathic personality traits will report more victimization than men without psychopathic personality traits, whereas women with psychopathic personality traits and women without psychopathic personality traits will not differ.

## **Method**

### **Participants**

Participants were randomly selected from the Swedish population born 1987-1991 stratified by county using registers from the Swedish statistical agency (SCB). Adoptees born outside of Sweden were included. People living in Sweden but born outside of Sweden were not included. To achieve the predetermined number of participants of 2500 individuals, 4455 individuals were asked and agreed to participate in the study. For a number of different reasons (e.g., did not answer when they were called, technical problems) it was 1955

individuals, who had agreed to participate during the recruitment, which did not carry out the interview. The final sample consisted of 47.4 % men and 52.6 % women, aged 20-24 years ( $M_{age}=22.15$ ) ( $SD=1.38$ ).

## Measures

A questionnaire and interview guide designed by researchers at Örebro University was used.

### Psychopathic Personality Traits

The Youth Psychopathic traits Inventory Short Version (YPI:SV, Van Baardewijk et al., 2010), a self-report questionnaire, was used to measure psychopathic traits. The three subscales: Interpersonal, *“I have the ability to deceive others by using my charm and my smile”*, Affective, *“To feel guilt and remorse over things you did that hurt other people is a sign of weakness”* and Behavioral, *“I’ve probably skipped school more than most”*, create a questionnaire consisting of 18 questions were the participants answered about how they are as a person, how they normally think and behave. The claims were rated on a four-point scale ranging from Does not apply at all to Applies very well. A total scale for psychopathic traits consists of the total score of all the three subscales. Chronbach’s alpha for the Interpersonal factor was .77 (6 items); the Affective factor .67 (6 items); the Behavioral factor .71 (6 items), and for the Total scores .66 (18 items).

### Self-report of criminality

Criminal offences were self-reported in the questionnaire by the participants. The questions are rated on a five-point scale ranging from No that has not happen to Yes, more than 10 times. Criminal offences were tested by using six out of eight subscales. The following variables are non-homogeneous variables which is why Chronbach’s alpha is not reported.

**Criminality.** This measures the total amount of committed offences by using nineteen questions. The questions concern topics that are presented in the following subscales.

**Minor property offences.** The scale consists of three questions, for example; *“Have you taken anything from the mall, news-stand or shop without paying?”* and *“Have you stolen anything from someone`s pocket or bag?”*.

**Serious property offences.** The scale consists of seven questions, for example; *“Have you been involved in breaking into a car, house, store, news-stand, storage or any other building, attempting to steal something?”* and *“Have you bought or sold something that you knew or believed that it was stolen?”*.

**Minor violent offences.** The scale consists of three questions, for example; *“Have you threatened or forced someone to give something or to do something he or she did not want, for instance money, cigarettes, sex or anything else?”* and *“Have you been carrying weapons? For instance brass knuckles, bat, knife, stiletto or something else?”*.

**Serious violent offences.** The scale consists of four questions, for example; *“Have you ever been involved in physically abusing someone to the point that, according to what you believe or know, he or she needed medical attention?”* and *“Have you purposely abused anyone physically with a knife, stiletto, brass knuckles, or any similar weapon?”*.

**Versatility.** This item measures the number of times each of the above mentioned offences have been committed (Andershed et al., 2002).

Two subscales were not used for separate analyses but are included in the variables Criminality and Versatility. These subscales measure the use of illegal drugs and vandalism and each subscale are answered by one question.

### **Self-report of aggression**

The Aggression Questionnaire (Buss & Perry, 1992) was used to measure aggression. Below are the four self-report subscales presented.

**Physical aggression.** The scale consists of nine claims rated on a seven-point scale ranging from not at all like me (1) to exactly like me (7). Example of claims: *“It happens that I can’t stop myself from hitting another person”*, *“If someone hits me, I hit back”* and *“I end up in fights more often than others”*. Chronbach’s alpha was .71.

**Verbal aggression.** The scale consists of five claims rated on a seven-point scale ranging from not at all like me (1) to exactly like me (7). Example of claims: *“I tell my friends openly when I disagree with them”*, *“I end up in discussions when others disagree”* and *“I often find that I disagree with other people”*. Chronbach’s alpha was .79.

**Anger.** The scale consists of seven claims rated on a seven-point scale ranging from not at all like me (1) to exactly like me (7). Example of claims: *“When I’m frustrated I show my irritation”*, *“I have an even temperament”* and *“Sometimes I burst up without any particular reason”*. Chronbach’s alpha was .82.

**Hostility.** The scale consists of eight claims rated on a seven-point scale ranging from not at all like me (1) to exactly like me (7). Example of claims: *“Sometimes my jealousy consume me”*, *“Sometimes I wonder why I feel so bitter”* and *“I know that my “friends” talks behind my back”*. Chronbach’s alpha was .84.

Two out of three subscales from The Self-report of Aggression and Social Behavior questionnaire (Morales & Crick, 1998) were used to measure peer-directed relational aggression.

**Peer-directed reactive relational aggression.** The scale consists of five claims rated on a seven-point scale ranging from not at all like me (1) to exactly like me (7). Example of

claims: *“If I’m exclude from an event with a group of certain people, I exclude them from things I do in the future”*, *“When someone do something that makes me angry, I try to make he/she embarrassed or look stupid in front of their friends”* and *“I have spread rumors about a person just to be mean”*. Chronbach’s alpha was .76.

**Peer-directed proactive relational aggression.** The scale consists of four claims rated on a seven-point scale ranging from not at all like me (1) to exactly like me (7). Example of claims: *“When I want something from a friend, I act cold and indifferent towards him/her until I get what I want”* and *“I have threatened to share private information about my friends to other people to get what I want”*. Chronbach’s alpha was .64.

**Self-harm.** Measured by one question: *“Have you ever harmed yourself on purpose, without the intention to die?”* where the participant answered yes, no or sometimes.

### **Self-report of victimization**

**Property offences.** The scale measured the frequency of exposure to different kinds of property offences. The scale consists of four questions rated on a six-point scale ranging from 0 (zero) to 5 times or more. Examples of questions: *“Have someone ever used their physical strength to take something from you which you where wearing or carrying?”*, *“Have someone ever destroyed something of yours on purpose?”* and *“Have someone ever taken something from you without returning it (e.g. a backpack, money, a watch, clothes, bicycle)?”*

Chronbach’s alpha was .58.

**Physical violence.** The scale measured the frequency of exposure to physical violence. The scale consists of eleven questions rated on a six-point scale ranging from 0 (zero) to 5 times or more. Examples of questions: *“Have someone ever thrown, pushed or held you down against the ground?”*, *“Have someone ever on purpose attacked you with something that can cause burn injuries e.g. hot water, cigarettes, acid, gas (e.g. at home, at school, in a store, in*

*a car, on the street or anywhere else)*” and *“Have someone ever spanked you e.g. on the butt or hit you with a belt?”*. Chronbach’s alpha was .84.

**Verbal violence.** The scale measured the frequency of exposure to verbal violence. The scale consists of two questions rated on a six-point scale ranging from 0 (zero) to 5 times or more. Examples of questions: *“Have you ever been afraid or felt really sad or miserable because someone called you nickname, said mean things about you or directly to you or said that they did not want you?”* and *“Have you ever been afraid or felt really sad or miserable because someone threatened to give up on you without actually doing that?”*. Chronbach’s alpha was .49.

**Neglect.** The scale measured the frequency of exposure to neglect. The scale consists of five questions rated on a six-point scale ranging from 0 (zero) to 5 times or more. Examples of questions: *“When someone is being neglected, it means that the adults in their lives do not take care of them as they should. Maybe they won’t give them food... When you were a child, were you neglected?”* and *“When you were a child, did it ever happen that your home or clothes were so dirty or broken that you felt uncomfortable or ashamed because of it?”*. Chronbach’s alpha was .73.

**Sexual abuse.** The scale measured the frequency of exposure to sexual abuse. The scale consists of seven questions rated on a six-point scale ranging from 0 (zero) to 5 times or more. Examples of questions: *“Have someone ever forced you to do sexual things?”*, *“Have someone ever touched your privates when you did not want to or forced you to (vaginal, oral or anal) sex?”* and *“Have someone ever hurt you by saying or writing something sexual about you or your body or taken pornographic pictures or film of you?”*. Chronbach’s alpha was .85.

## **Procedure**

The participants were approached and informed about the study and its procedure. The participants were also given the opportunity to choose location for the interview. Well-trained interviewer performed face-to-face interviews and also let the participant fill out a self-report questionnaire to collect the information from the participant. Before the interview the participant got information about the purpose of the study, written information about the procedure of the interview and the opportunity to ask questions. The participant signed a consent form. The session consisted of three parts. The first part of the interview was a verbal interview where the interviewer asked questions to be answered by the participant. In the second part the participant got to fill out a questionnaire, meanwhile the interviewer was nearby and helpful for any questions. The third and last part consisted of verbal questions again. When the interview was finished the participant received a gratification of 400 SEK and a list of support persons who were available for the participant if necessary as a consequence of thoughts that may come up as a result of the questions answered. The present study was evaluated and approved by an ethics committee (Dnr 2010/463).

## **Statistical analyses**

Data analyses were all performed in SPSS version 21.0. To test for gender differences among people with psychopathic traits independent t-tests were performed. In the first t-test, a group selection was made to filter out those people with heightened psychopathy traits, the high group. Then, t-test was performed with the different variables as test variables and gender was selected as grouping variable. For the t-test within genders a group selection was made to filter out men and women respectively, and then t-test were performed with all the different variables as test variables and the variable that captured the participants YPI scores

was selected as grouping variable. One t-test for men and one t-test for women were conducted.

## Results

### Selection of psychopathic personality group

The YPI and the YPI:SV does not have an established cut-off score for finding psychopathic individuals. But, a cut-off score of 121.5, which is representing 60.75 % of the maximum score, for finding psychopathic personality traits in people based on the YPI, consisting of 50 questions. The cut-off score on YPI has been found to correspond with the diagnostic cut-off score (30 points or more) on The Psychopathy Checklist Youth Version (PCL:YV, (Cauffman, Kimonis, Dmitrieva, & Monahan, 2009). The following described process has been used in previous research (Kimonis, Frick, Cauffman, Goldweber. & Skeem, 2012). In the present study YPI:SV, consisting of 18 questions with a maximum score of 72, was used. To create a cut-off score for YPI:SV it was based on the same percentage rate as the cut-off score in YPI, i.e., 60.75 % of the maximum score. This creates a cut-off score of 43.74 on YPI:SV which was used to identify those individuals with psychopathic personality traits, in the present study. Thus, people scoring 43.74 or higher was selected to a group with psychopathic personality traits ( $N=167$ ) (from now on called “High group”). People scoring below the selected cut-off score were used as a control group ( $N=2335$ ) (from now on called “Low group”). This grouping resulted in yet another grouping where the high and low group were divided on gender, creating four groups that were used for analyses. Men of the high group ( $N=118$ ), women of the high group ( $N=49$ ), men of the low group ( $N=1068$ ) and women of the low group ( $N=1265$ ).



**Gender differences in levels of psychopathic traits.** Table 1 presents mean and standard deviation of men and women of the high and low group. Among men and women in the high group, a significant difference was found only on the behavioral factor of psychopathy, on which women scored significantly higher than men. On the other factors, interpersonal and affective, and the total score of psychopathy, men and women of the high group did not differ significantly (see Table 1, t-test 1). Thus, these results did not confirm the hypothesis that men with psychopathic personality traits would score higher than women with psychopathic personality traits.

Furthermore, as seen in Table 1, men of the high group scored significantly higher than men in the low group on all factors and total scores of psychopathy (see Table 1, t-test 2). Women of the high group scored significantly higher than women in the low group on all factors and total scores of psychopathy (see Table 1, t-test 3). This confirms the hypothesis that men and women with psychopathic personality traits would score higher than men and women without psychopathic personality traits.

Table 1

*Mean differences; between men and women of the high psychopathy group, between men of the high and low psychopathy group, and between women of the high and low psychopathy group on the total and factor scores of psychopathy with independent t-tests*

	Men high group			Women high group			Men low group			Women low group			T-test 1 (high)		T-test 2 (men)		T-test 3 (women)	
	n	M	Sd	n	M	Sd	n	M	Sd	n	M	Sd	df	t	df	t	df	t
Interpersonal	118	2.86	.48	49	2.82	.57	1068	1.80	.55	1265	1.55	.49	165	.521	152.01	-22.28***	50.78	-15.29***
Affective	118	2.38	.55	49	2.29	.52	1068	1.48	.41	1265	1.30	.53	165	1.03	131.67	-17.22***	1312	-18.50***
Behavioral	118	2.74	.54	49	2.92	.45	1068	1.97	.48	1265	1.94	.53	165	-2.06*	1184	-16.33***	53.22	-14.81***
Total	118	2.66	.24	49	2.68	.23	1068	1.75	.34	1265	1.60	.33	165	-.34	173.74	-37.54***	1312	-22.30***

*Not.* n = frequency; M = Mean; Sd = Standard deviation; df = degrees of freedom

\* =  $p < .05$     \*\* =  $p < .01$     \*\*\* =  $p < .001$

Total = The total score of psychopathy, composed result of the interpersonal, affective and behavioral factor

T-test 1 (high) = Mean differences between men and women of the high group

T-test 2 (men) = Mean differences between men of the high group and men of the low group

T-test 3 (women) = Mean differences between women of the high group and women of the low group

**Gender differences in Criminality.** Table 2 presents mean and standard deviation of men and women of the high and low group. Among men and women of the high group, men reported significantly higher rates of committing minor and serious violent offences and reported a significantly greater versatility of crimes than women (see Table 2, t-test 1). These results confirm the hypothesis where men with psychopathic personality traits were expected to report more criminality than women with psychopathic personality traits.

Men of the high group reported significantly higher rates of committing offences than men of the low group, these results were significant for all six variables (see Table 2, t-test 2). Women in the high group reported significantly higher rates of criminality and reported a significantly greater versatility than women of the low group, (see Table 2, t-test 3). These results confirms the hypothesis that men and women with psychopathic personality traits where expected to report more criminality than men and women without psychopathic personality traits.

Table 2

*Mean differences; between men and women of the high psychopathy group, between men of the high and low psychopathy group, and between women of the high and low psychopathy group on criminality with independent t-tests*

	Men high group			Women high group			Men low group			Women low group			T-test 1 (high)		T-test 2 (men)		T-test 3 (women)	
	n	M	Sd	n	M	Sd	n	M	Sd	n	M	Sd	df	t	df	t	df	t
Criminality	118	1.21	.32	49	1.12	.26	1068	1.09	.18	1265	1.03	.09	165	1.81	125.18	-4.01***	48.41	-2.22*
Minor property	118	1.29	.63	49	1.20	.52	1068	1.17	.42	1265	1.11	.33	165	.88	128.68	-2.12*	49.52	-1.25
Serious property	118	1.08	.20	49	1.09	.29	1068	1.03	.12	1265	1.01	.06	165	-.307	125.68	-2.52*	48.16	-1.95
Minor violent	118	1.24	.52	49	1.05	.21	1068	1.10	.32	1265	1.01	.11	164.89	3.35***	126.71	-2.91*	49.00	-1.33
Serious violent	118	1.19	.46	49	1.07	.18	1068	1.05	.21	1265	1.02	.10	164.73	2.58*	122.18	-3.28***	49.16	-1.81
Versatility	118	1.53	1.56	49	.94	1.28	1068	.76	1.20	1265	.33	.70	165	2.33*	132.84	-5.16***	49.11	-3.32**

*Not.* n = frequency; M = Mean; Sd = Standard deviation; df = degrees of freedom

\* =  $p < .05$     \*\* =  $p < .01$     \*\*\* =  $p < .001$

Criminality = composed of scores from minor property, serious property, minor violence, serious violence and versatility

T-test 1 (high) = Mean differences between men and women of the high group

T-test 2 (men) = Mean differences between men of the high group and men of the low group

T-test 3 (women) = Mean differences between women of the high group and women of the low group

**Gender differences in aggression.** Table 3 presents mean and standard deviation of men and women of the high and low group. Men and women of the high group significantly differed in aggressive behavior (see Table 3, t-test 1). Men reported that they used more physical aggression and women reported that they experienced more hostility, anger and that they had harmed themselves in a greater amount. These results confirm the hypothesis that men and women with psychopathic personality traits would express different types of aggressive behavior.

Men in the high group reported significantly higher scores on all seven aggression variables than men of the low group (see Table 3, t-test 2). Women in the high group reported significantly higher scores on all seven aggression variables than women of the low group (see Table 3, t-test 3). These results confirm the hypothesis that men and women with psychopathic personality traits are showing more aggression than men and women without psychopathic personality traits.

**Gender differences in victimization.** Table 4 presents mean and standard deviation of men and women of the high and low group. Men of the high group reported significantly more experience of physical violence than women of the high group, who instead reported significantly more experience of verbal violence, neglect and sexual abuse than men (see Table 4, t-test 1). These results confirm the hypothesis that men and women with psychopathic personality traits would report different experience of victimization.

Men of the high group reported significantly more experience of property offences, physical violence and neglect than men of the low group (see Table 4, t-test 2). The result confirms the hypothesis, that men with psychopathic personality traits would report more experience of victimization than men without psychopathic personality traits. Women of the high group reported significantly more experience to all five variables of victimization than women of the low group (see Table 4, t-test 3). These results on the other hand did not

confirm the hypothesis that women with psychopathic personality traits and women without psychopathic personality traits would report the same amount of experience.

Table 3

*Mean differences; between men and women of the high psychopathy group, between men of the high and low psychopathy group, and between women of the high and low psychopathy group on aggression with independent t-tests*

	Men high group			Women high group			Men low group			Women low group			T-test 1 (high)		T-test 2 (men)		T-test 3 (women)	
	n	M	Sd	n	M	Sd	n	M	Sd	n	M	Sd	df	t	df	t	df	t
Physical aggression	118	3.32	1.18	49	2.60	1.05	1068	2.29	.86	1265	1.79	.67	165	3.71***	131.02	-9.24***	49.56	-5.37***
Verbal aggression	118	4.64	1.25	49	4.25	1.43	1068	3.51	1.22	1265	3.07	1.19	165	1.76	1184	-9.55***	50.60	-5.70***
Anger	118	3.12	1.23	49	3.64	1.51	1068	2.32	.91	1265	2.65	1.10	75.67	-2.15*	131.47	-6.84***	49.99	-4.57***
Hostility	118	2.54	1.15	49	3.31	1.51	1068	1.95	.91	1265	1.94	.94	72.18	-3.20**	133.74	-5.41***	49.45	-6.31***
Reactive	118	1.89	1.01	49	2.13	1.33	1068	1.42	.60	1265	1.29	.53	72.03	-1.10	126.23	-5.00***	48.60	-4.40***
Proactive	118	1.41	.67	49	1.43	.76	1068	1.13	.37	1265	1.08	.30	165	-.10	124.94	-4.70***	48.58	-3.26**
Self-harm	118	1.48	.98	49	2.12	1.32	1068	1.18	.62	1265	1.52	1.03	78.88	-3.07**	127.46	-3.33***	50.29	-3.16**

*Not.* n = frequency; M = Mean; Sd = Standard deviation; df = degrees of freedom

\* =  $p < .05$  \*\* =  $p < .01$  \*\*\* =  $p < .001$

Reactive = Scores from peer-directed reactive relational aggression

Proactive = Scores from peer-directed proactive relational aggression

T-test 1 (high) = Mean differences between men and women of the high group

T-test 2 (men) = Mean differences between men of the high group and men of the low group

T-test 3 (women) = Mean differences between women of the high group and women of the low group

## Discussion

The purpose of the present study was to investigate if men and women with psychopathic personality traits differ on psychopathy total and sub-scores (i.e., interpersonal, affective, behavioral), criminality, aggression and victimization. The key findings of the current study were: women with psychopathic personality traits have more behavioral traits of psychopathy, e.g., impulsiveness, than men with psychopathic personality traits. Men with psychopathic personality traits are on the other hand, more prone to engage in criminal

behavior, especially violent offences, and they also show more external aggressive behaviors than women with psychopathic personality traits who exhibit more internalizing aggressive behavior, in form of a self-harming behavior. Both men and women with psychopathic personality traits have experienced victimization, where men are more victimized by physical abuse and women more victimized by psychological abuse (e.g., neglect, verbal and sexual abuse). This makes it possible to draw the conclusion that men and women with psychopathic personality traits are exhibiting and experience different aggressive behavior and are exposed to different types of victimization which will create different needs for treatment.

Table 4

*Mean differences; between men and women of the high psychopathy group, between men of the high and low psychopathy group, and between women of the high and low psychopathy group on victimization with independent t-tests*

	Men high group			Women high group			Men low group			Women low group			T-test 1 (high)		T-test 2 (men)		T-test 3 (women)	
	n	M	Sd	n	M	Sd	n	M	Sd	n	M	Sd	df	t	df	t	df	t
Property offences	118	2.20	2.17	49	2.24	2.19	1068	1.51	1.77	1265	1.24	1.63	165	-.11	134.73	-3.34***	50.10	-3.17**
Physical violence	118	3.43	2.11	49	2.69	2.20	1068	2.32	2.14	1265	1.45	1.95	165	2.03*	1148	-5.35***	50.96	-3.90***
Verbal violence	118	1.60	2.13	49	2.51	2.34	1068	1.37	2.03	1265	1.79	2.16	82.74	-2.44*	1184	-1.17	51.22	-2.13*
Neglect	118	.65	1.68	49	1.53	2.33	1068	.33	1.19	1265	.54	1.50	69.57	-2.40*	130.42	-2.05*	49.56	-2.96**
Sexual abuse	118	.31	1.08	49	1.51	2.03	1068	.14	.63	1265	.85	1.54	59.49	-3.90***	126.15	-1.68	50.16	-2.24**

*Not.* n = frequency; M = Mean; Sd = Standard deviation; df = degrees of freedom

\* =  $p < .05$     \*\* =  $p < .01$     \*\*\* =  $p < .001$

T-test 1 (high) = Mean differences between men and women of the high group

T-test 2 (men) = Mean differences between men of the high group and men of the low group

T-test 3 (women) = Mean differences between women of the high group and women of the low group

Men and women with psychopathic personality traits have higher scores on psychopathy than men and women without psychopathic personality traits. These individuals with psychopathic personality traits were also engaged in more criminality: were expressing and had experienced more aggression and had been exposed to more acts of victimization

than those without psychopathic personality traits.

The finding that men with psychopathic personality traits are committing more criminal offences than women with psychopathic personality traits is in line with earlier research. Earlier research has focused on the starting points of criminality, recidivism rate and contributing psychopathic traits to recidivism (Harris et al., 1991; Hicks et al., 2010; Salekin et al., 1998). Whereas the focus in this study was primarily on how men and women with psychopathic personality traits differ on types of criminal offences. To the author's knowledge the present results contributes with new information in this field of research.

Another interesting and important result from this study is the different subtypes of aggression between men and women with psychopathic personality traits. Men's higher propensity to show externalizing behavior, like physical acts of aggression, compared to women's higher propensity to have more internalizing problems typically self-harming is a very interesting finding in particularly for people in treatment facilities. Displaying different forms of aggressive expressions may create different needs of treatment and defining the nature of aggression in these individuals may help target the right treatment (Felthous, 2011).

There is a suggested connection between Borderline personality disorder (BPD) and psychopathy that might explain a novel finding in the present study. BPD is a personality disorder that is more common among women than men. Instability is a key term for this disorder, for example instability in emotions, interpersonal relationships and self concept (Nolen-Hoeksema, 2008). Among women, behavioral psychopathic traits are strongly connected to BPD and this connection is suggested to be a female version of psychopathy (Sprague, Javdani, Sadeh, Newman, & Verona, 2012). In the present study men and women were expected to report different scores of psychopathy, men were hypothesized to score higher than women on the total score and all sub-scores of psychopathy, based on previous research (Forth et al., 1995; Grann, 2000). In this sample men and women with psychopathic

personality traits, surprisingly only differed on the behavioral factor where women scored higher than men. Is it possible that these women have BPD and psychopathy and that this is a possible explanation for the present differences in psychopathy scores? This question is something that future research would have to answer, but there is yet another possible explanation for this novel result. The result could be affected by the selected cut-off score of YPI:SV (Cauffman et al., 2009; Kimonis et al., 2012). The selected cut-off score in the present study was originally based on the cut-off score on PCL:YV (Cauffman et al., 2009; Kimonis et al., 2012). The problem here is that the PCL:YV is developed to identify individuals with psychopathic personality traits among incarcerated populations (Hare, 2003, ref. in Vien & Beech, 2006). The cut-off score of PCL:YV is also suggested to be difficult for women to meet because of their lowered psychopathy scores compared to men (Jackson et al., 2002). In both the Cauffman et al. (2009) and Kimonis et al. (2012) studies they used samples of male juveniles which may explain why the cut-off score used in the present study may have contributed to contradicting results. Previous research suggests that psychopathy scores are higher among incarcerated populations compared to the non-incarcerated population and that men score higher than women (Forth et al., 1995). This might affect the results because the selected cut-off score might have been too high to capture all individuals with psychopathic personality traits in this sample. This is something that has to be matched better in future research.

Yet another novel finding in the present study was that women with psychopathic personality traits and women without psychopathic personality traits differed in their experience of victimization. Previous research has reported that experience of abuse does not correlate with differences in levels of psychopathy in girls (Krischer & Sevecke, 2008). The different results may be due to the different samples and measurement of victimization. In Krischer and Sevecke (2008) they used a sample of juveniles and measured victimization only

in childhood, whereas the present study included a sample from the general population and measurement of victimization through life were used. Even though the results from the present study did not match those of Krischer and Sevecke (2008), the present results support previous research where they have found similar gender differences (Lang et al., 2002; Weizmann-Henelius et al., 2010). Men with psychopathic personality traits had experienced more victimization regarding physical abuse and women with psychopathic personality traits had experienced more victimization of sexual abuse but also neglect and verbal abuse.

There are a few limitations in the current study that needs to be acknowledged. First, the data are solely based on self-report which may allow participants to answer incorrectly and not entirely truthful. Second, this study is cross-sectional which makes it impossible to predict if these results are consistent through life and there is no possibility to talk about how the selected variables in the present study affect psychopathy in these individuals. Third, the large loss of participants might have lost some important individuals that could have affected the results in another direction, for example individuals that have experienced a larger amount of adverse life events.

Despite these limitations the present study has several strengths. First, the randomization process used in the present study increases the probability that the sample used in the present study is matching this age range, 20-24 years, of the general population very well. Second, the use of a sample within the general population makes the results applicable to the general population and expands the field of psychopathy where much research up to date have been conducted on incarcerated populations. Third, the large sample of participants from the general population used in the present study is larger than other samples used in studies that have investigated psychopathy within the general population. Fourth, results from this study are of clinical relevance and could be of interest for clinicians in treatment facilities. Results may include help for clinicians to choose a matching treatment to the



individuals' problems.

In future research, longitudinal investigations on gender differences in psychopathy and possible cause and effect relations regarding victimization among general people needs to be done. Studies have suggested that victimization in childhood and family circumstances might increase the development of psychopathy among incarcerated men and women (Krischer et al., 2008) and it would be interesting to find out if similar relationships exist among the general population as well.

The present result might be useful in treatment. The differences in aggressive behaviors and criminality between men and women with psychopathic personality traits may create different needs for treatment. Men may, for example, need more focus on behavioral control and anger management due to their greater proneness to externalizing behaviors (e.g., violent offences and physical outbursts), whereas women might need more help with their internal emotions and behaviors (e.g., self harming behaviors, feelings of anger) and therefore require more therapy and motivational interviewing. Even though many researchers are skeptical to the idea that people with psychopathic personality traits are treatable, there might be an increased chance of good outcomes for these individuals if the treatment is targeted to the individuals' problems.

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