

Exposure to Traumas at Various Developmental Stages and the Manifestation of Subclinical Psychopathy

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Understanding the development of personality is a growing field; however, little is known about the manifestation of subclinical psychopathic traits. Based on the knowledge that childhood trauma/abuse is known to contribute to the development of clinical psychopathy, it was hypothesized that the experience of physical, sexual, emotional abuse and/or neglect during childhood and/or adolescents as well as the age and length of exposure to abuse would contribute to the development of subclinical psychopathy. A community sample of 160 participants completed an online questionnaire consisting of demographic questions, the Levenson Self-Report Psychopathy Scale, and The Child Abuse and Trauma Scale. Pearson's Product Moment Correlation coefficient found that there was no relationship between the age of exposure to trauma, the length of exposure to trauma, and the manifestation of subclinical psychopathy. Descriptive statistics revealed that those who did not experience childhood abuse received a low or medium subclinical psychopathy score.

Keywords: Subclinical psychopathy, childhood trauma, adolescent trauma.

Psychopathy is a personality disorder characterized by the traits of superficial charm, lack of empathy, and manipulation (Cleckley, 1976). The contributing factors behind the development of these traits and their course of development is debatable and not fully understood (De Clercq et al., 2017; Paulhus & Williams, 2002). Exposure to various forms of trauma during developmental years has a critical role in shaping and molding the personality of an individual (Dijke et al., 2011; Gao et al., 2010). Examining the impact of traumatic events assist in identifying the number of factors that have an important part in the etiology of a range of personalities and personality disorders (Craparo et al., 2013; Li et al., 2014; Watson et al., 2006). An in-depth study of the elements that contribute to the formation of personality provides the basis for understanding the developmental factors associated with psychopathy (De Clercq et al., 2017). From a developmental perspective, an in depth understanding of the process, by which the development of psychopathy traits occurs, would inform psychologists in designing early interventions in different settings and potentially reduce pathological traits displayed in adulthood (Tuvblad et al., 2017). This would assist in the process of potentially reducing symptomology, increasing positive behavior, and breaking the trauma cycle by intervening and stopping an individual, in earlier years of life, from becoming a psychopath (Tuvblad et al., 2017). Therefore, research on the developmental factors of psychopathic traits could contribute to early intervention and thus provide valuable input into devising strategies for the reduction of developing more rigid psychopathic traits in adulthood.

Research into the origin and development of psychopathy has focused on the development of relevant brain regions and genetics (Kiehl, 2014; Yildirim, 2016), as well as the

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role of social and environmental factors (Craig et al., 2013; Schimmenti et al., 2014) including exposure to trauma during childhood. Trauma, experienced during the critical developmental years of childhood, has been shown to have a bearing on personality development and thus an influence on psychopathic traits (Gao et al., 2010). Psychopathic traits, just like other types of personality, are displayed by everyone to various degrees (Kiehl, 2014), leading to the categories of clinical and subclinical psychopathy (SP). From the dimensional model of personality disorder, like ASD, psychopathy can be viewed on a spectrum as well (American Psychiatric Association, 2013; Kiehl, 2014). A clinical psychopathy diagnosis requires most or all of the psychopathic characteristics to be present and displayed to a high extent (Cleckley, 1976; Hare, 1991; Kiehl, 2014; Pozueco-Romero et al., 2014). Those high in these traits are more likely to display higher levels of maladaptive behaviors throughout the lifespan (De Clercq et al., 2017). SP is prevalent among individuals within the community who, according to literature, lack criminal behavior, prison time, and a lesser degree of displayed psychopathic traits, thus marking the difference between the two categories of subclinical and clinical psychopathy (Cleckley, 1976; Hare, 2003; Pozueco-Romero et al., 2014). The majority of psychopathy research consists of clinically diagnosed individuals within a prison setting, with limited research on the development of these traits within the general population.

Childhood trauma is classified as an emotionally painful or distressing event where the child experiences long term physical and/or psychological effects, threatening an individual's feelings and beliefs about personal safety. Trauma experienced during the developmental period can lead to long term physical health problems, including cardiovascular disease, and diabetes (Lei et al., 2018), as well as long term detrimental psychological effects manifested in the form of post-traumatic stress, anxiety, depression, and personality changes (Krystal, 1978). Exposure to trauma at an early age can distort children's perception of safety, making them hyper vigilant to the cues of potential danger and thus increasing the likelihood of interpreting many harmless events as threatening. This can further lead to aggressive and withdrawn behavior in children (Greenwald, 2002), which puts them at risk for being perceived as problem children. Reactions to childhood trauma can be immediate or delayed and have been known to contribute to future maladaptive behavior in children (Altintas & Bilici, 2018). It is also worth noting that not all children who are exposed to abuse during childhood would continue to experience long term effects into adulthood. This is mainly due to protective factors such as strong parent child relationship, family cohesion, access to services (Thabet, 2017), a child's temperament, coping style, and a supportive environment post-exposure to trauma (Altintas & Bilici, 2018).

Forms of abuse include physical, sexual, emotional abuse and neglect. The Australian Institute of Family Studies (2017) reported that during the period of 2015-2016, 225,487 children in Australia had experienced or were at risk of experiencing abuse and neglect. Childhood sexual abuse occurs when a minor under the age of fifteen is either coerced or forced into unwanted sexual activities by an adult or by another child (APA, 2013; Batool & Abtahi, 2017; Chang et al., 2018). Forms of childhood sexual abuse include children being forced to watch pornography, non-penetrative behavior (such as touching), and intercourse, with non-penetrative abuse the most common form of sexual abuse (Negriff et al., 2014). A 2005 Australian survey found that around 4.5% of men and 12% of women had experienced sexual abuse before the age of fifteen (Richards, 2011). Experiencing this form of trauma can lead to an array of psychological effects including post-traumatic stress, emotional regulation difficulties (Chang et al., 2018; Foa et al., 2009), feelings of shame and guilt; behavioral difficulties, and disruption and distortion of personality development. Therefore, children who experience sexual abuse have a greater risk of

developing the traits of psychopathy (Graham et al., 2012). It has also been found that psychopaths who experienced childhood sexual abuse are also more likely to sexually abuse others. The level of impact from this form of trauma can be affected by age, with children who experience sexual abuse at an earlier age more likely to experience psychological problems (Batool & Abtahi, 2017).

Childhood physical abuse occurs when a person physically hurts a child in their care through a non-accidental act, extreme discipline, or lashing out in anger and thus, causing fear in a child (World Health Organization, 2006). Between 2015-2016, over 8,000 reports were issued for Australian children experiencing and witnessing physical abuse (Australian Institute of Family Studies, 2017). Experiencing physical abuse during childhood can lead to both physical and emotional difficulties including depression, post-traumatic stress disorder, substance abuse and changes in personality. This can include the development of psychopathy (Frodi et al., 2001; Gao et al., 2010; Kolla et al., 2013). Age of exposure to physical trauma has been found to impact on the development of personality traits, with exposure to physical abuse during adolescents increasing psychopathic traits (Daversa & Knight, 2007).

Childhood emotional abuse, also known as psychological abuse, is considered the most common and most detrimental form of abuse (Australian Institute of Family Studies, 2017). Childhood emotional abuse can be characterized by repetitive, continuous, negative treatment over a significant amount of time by a care giver, where the care giver's actions contribute to the emotional disturbance of the child. This can include rejection, isolation, and the use of fear as a form of punishment. Forms of emotional abuse such as neglect, parental hostility, criticism, and lack of interest in child welfare have been observed to contribute to the development of psychopathic traits; along with impulsivity, anger, and conning and callousness behavior displayed by a caregiver playing an important role in the development of psychopathy in children (Schimmenti et al., 2015; Schimmenti et al., 2014). The age and developmental stage of the child at the time of experiencing emotional abuse can influence the severity with which this trauma impacts a child. It has been found that a child and adolescent is more likely to display aggressive behavior when experiencing emotional abuse and neglect during infancy (Manly et al., 2001).

Without early intervention, the developmental trajectory comprising of continuous and prolonged exposure to trauma can have long term detrimental effects in the form of children manifesting the symptoms of attention deficit hyperactivity disorder and conduct disorder throughout childhood and adolescents (Docherty et al., 2018; Semiz et al., 2017). This destructive trajectory may continue into adulthood with the diagnosis of personality disorders such as anti-social personality and psychopathy (Schimmenti et al., 2015). The present study has aimed to contribute to the literature on the connection between childhood trauma to the manifestation of subclinical psychopathic (SP) traits among adult males and females in the general population.

Objectives of the Study

- To understand how childhood and adolescent exposure to traumas at various developmental stages can affect the manifestation of SP traits
- To investigate the connection between exposure to various types of trauma during early years of life (0-10 years) and their relationship with various degrees of SP in adulthood (19 years and over).
- To study the traumatic events (physical abuse, sexual abuse, emotional abuse and/or neglect) experienced during developmental years, which have been shown to have a role

in the development of clinical psychopathy and their connection with the manifestation of SP in a community sample of male and female adults over the age of 18 years.

Hypotheses of the Study

- People who experience childhood sexual, physical, emotional abuse and/or neglect beginning before the age of ten will receive a higher score for subclinical psychopathy than those who experienced trauma after the age of ten.
- The duration of exposure will have a relationship to the development of subclinical psychopathy in adulthood.
- Those who did not experience any form of trauma in their childhood will score low on subclinical psychopathic traits.

Method

Research Design

Survey Research Design was used in the present study.

Sample

The study comprised of 160 participants (female= 140, male= 20) from the general population. Participants ages ranged from 18-73 years ($M=27$, $SD= 8.86$). All participants were over the age of 18 and were raised in Australia. Participants who had never experienced childhood abuse participated in the study. As part of a demographic questionnaire, participants were asked if they had experienced childhood abuse. 65.6% of participants stated that they had experienced abuse during childhood. Of those who were abused during childhood 28.6% had been abused between the ages of 3-6 years, with 22.9% abused between the ages of 6-9 years. 54.3% of participants who were abused experienced the abuse for over 5 years. 75.6% of participants who took part in the study were current university students, with 53% in a monogamous long-term relationship and 41.9% of participants reported to be single.

Assessment Measures

The questionnaire consisted of two measures assessing (1) SP traits, and (2) childhood physical, sexual, emotional abuse and neglect, as well as demographic questions.

Demographic Questionnaire

A demographics questionnaire was used to gain information about age, gender, place of birth, country raised in, relationship status, experience of abuse, and at what age and how long the abuse had occurred for; and if the participants were university student.

Levenson Self-Report Psychopathy Scale

To assess psychopathic traits in a subclinical population, participants completed the Levenson Self-report Psychopathy Scale developed by Levenson et al. (1995). This self-report scale consists of 26 items which utilises a 5-point scale ranging from 1 (strongly disagree) to 5 (strongly agree). “Success is based on survival of the fittest; I am not concerned about the loser” and “I am often bored” are some examples of the items used in this scale. This scale is a measure of traits and is not a clinical construct. For the purpose of this study a total psychopathy score was calculated, with those participants receiving a higher score indicative of displaying higher

levels of SP. Brinkley et al. (2001) found the total score to have good construct validity and good reliability (i.e., 0.85). A number of studies (Lemelin et al., 2014; Savard et al., 2015; Savard et al., 2006; Whyte, 2016) have used this scale to assess psychopathic traits as it has been found to be an excellent measure of psychopathy (Lynam et al., 1999). The Levenson self-report psychopathy scale displays good internal validity and response validity (Levenson et al., 1995) as well as high test-retest reliability ($r=0.83$) and high construct validity (Lynam et al., 1999). Levenson et al. (1995) also found the scale to be a reliable assessment tool to assess institutionalised populations for psychopathy.

The Child Abuse and Trauma Scale

The Child Abuse and Trauma Scale (Sanders & Becker-Lausen, 1995a) was administered to assess sexual abuse, physical abuse and neglect, and consists of 38 items. Participants rated each item on a 5-point Likert type Scale, 0 indicating ‘never’ and 4 indicating ‘always’. Higher scores indicate that the participant experienced one of the three forms of abuse in childhood. Examples of some of the items include “As a child did you feel unwanted or emotionally neglected?” and “When you were punished as a child or teenager, did you feel the punishment was deserved?”. Sanders and Becker-Lausen (1995b) found the scale to have good internal consistency and test-retest reliability. The scale has also got strong validity due to the high correlations between its items and variables associated with childhood trauma and abuse including problems with close relationships and victimization (Sanders & Becker-Lausen, 1995b).

Procedure

Participant’s voluntarily completed a web-based questionnaire through Qualtrics. Participants were recruited to participate in the questionnaire through Facebook, with the link to the questionnaire displayed mostly on Victorian university Facebook pages. A Plain Language Information Statement in the form of an Information Letter, was presented to participants before the commencement of the questionnaire. Information about what the study was about, the time required to partake in the study, as well as ethical considerations including confidentiality, voluntary consent, and the right to withdraw from the questionnaire at any time, were included in this statement. The Plain Language Information Statement acknowledged that some of the questions presented in the questionnaire were of a sensitive nature. Details of support services such as Lifeline and BlueKnot were included, as well as the contact details of the researcher.

Ethical Considerations

- Informed consent from participants was required before starting the questionnaire. This was completed by participants answering ‘Do you agree to participate in this study?’ with “yes” or “no”. The questionnaire began if participants selected the “yes” option.
- Participation was voluntary and participants were made aware that all responses would remain confidential.
- Participants were informed that the questionnaire would take around 20 minutes to complete.
- At the end of the questionnaire, participants were asked if their responses could be collected for this research. If the participants answered as “yes”, then the data was collected. If the participants selected “no” or did not provide a response then the data was not used in the research. Results from the questionnaire were also not collected if the

participant did not respond to the question pertaining to collation of results at the end of the survey.

- No deception was used in this study.

Results

Contrary to expectations, age at exposure to trauma and the duration of exposure to trauma did not have a significant relationship to the manifestation of SP traits. To determine the level of SP traits displayed by a participant, total scores to the Levenson Self-report Psychopathy Scale were generated by calculating the overall minimum and maximum psychopathy score and then dividing into three groups- low, medium, or high traits. Of the 160 participants, only one participant (0.63%) obtained a high score. For the current study, the average subclinical psychopathy score generated was low ($M=55.3$, $SD= 12.5$).

Firstly, it was hypothesized that people who experience childhood sexual, physical, emotional abuse and/or neglect beginning before the age of ten will experience more subclinical psychopathy than those who experienced trauma after the age of ten. After conducting Pearson Product Moment correlation coefficient, it was found that there was a small, non-significant, negative correlation between the development of SP in adulthood and the age at which the trauma occurred. Though the correlation between age of exposure and scores on SP is non-significant, the resulting correlation direction being negative, points in the direction of the trend that as the age of exposure to trauma increases the scores on SP are likely to decrease.

Secondly, to explore the relationship between the development of subclinical psychopathy traits and the length of exposure to trauma during childhood and/or adolescents, Pearson Product Moment Correlation analysis was conducted. A small, non-significant, positive correlation between the development of SP in adulthood and the duration of exposure to trauma during childhood and/or adolescents was found. Though a non-significant relationship was found, a positive directional correlation was obtained. This indicates that with an increase in the duration of exposure to trauma, the development of SP traits would likely increase.

Table 1

Correlation Coefficient and Significance of Age and Exposure to Trauma When Compared to Psychopathy Score

Variables	Psychopathy Score	<i>n</i>	<i>p</i>
Age at trauma	-0.15	158	0.06
Exposure to trauma	0.09	158	0.36

Discussion

The current study has been a step in the direction of uncovering the relationship between the development of SP traits among adults and the age and duration of exposure to traumatic experiences during childhood and adolescence. The present study did not find a relationship between exposure to childhood and/or adolescent abuse and the manifestation of SP. Due to previous literature on the relationship between early exposure to trauma and the development of clinical psychopathy, the present study investigated whether this was true for the development of SP.

In hypothesis one, it was postulated that those who experience childhood and/or adolescent physical, emotion, sexual abuse and/or neglect that started before the age of ten would display more SP traits and receive a higher score for SP than those who experienced trauma after the age of ten. The findings from the present study indicated that the age at exposure did not have a relationship with the development of SP traits. However, a directional outcome was obtained, indicating that the likelihood of developing SP traits would decrease as the age at exposure to abuse/trauma would increase. This non-significant result was unexpected as Craparo et al. (2013) conducted a study on psychopathic inmates and found that those who experienced trauma before the age of ten displayed more psychopathic traits. The effect of experiencing trauma from an early age impacts and contributes to a variety of psychological issues of which clinical psychopath is one. Briggs-Gowan et al. (2011) argue that exposure to trauma from a younger age contributes to the development of mental health issues (Dye, 2018). Such findings are consistent with Courtois (1979), Downs (1993), and Meiselman (1978) who found that experiencing sexual abuse from an earlier age led to a higher risk of developing other psychological problems. In contrast, experiencing sexual abuse at preadolescents, compared to preschool age, predicted more negative psychological effects for the older children (Downs, 1993; Gomes-Schwartz et al., 1985). On one hand research has highlighted that factors of sexual, physical, and emotional childhood abuse contribute to psychopathy development (Gao et al., 2010), and on the other hand literature shows that the experience of separation from parents and a lack of parental bonding at a young age, also contributes to the development of psychopathic traits (Gao et al., 2010; Schimmenti et al., 2015). Research also suggests that poor parental bonding and attachment may have a greater impact on the development of psychopathy than childhood abuse (Craig et al., 2013).

In hypothesis two, it was further hypothesized that the duration of exposure to trauma would have a significant relationship to the development of SP in adulthood. Though there was a non-significant relationship between duration of abuse and SP traits, a directional trend was found. Present findings indicate that with an increase in the duration of exposure to trauma, the manifestation of SP traits would also increase. In the present study, descriptive statistics indicated that the duration of exposure to trauma among the participants mostly fell in the range of a number of years, pointing in the direction of prolonged nature of the experiences of abuse. There is very limited research on how the duration of exposure to physical, sexual, emotional abuse and neglect can affect the formation of psychopathic symptoms. However, it is postulated that the duration of exposure to abuse during childhood and adolescents has the potential to increase the likelihood for the onset of various psychological problems during the life span. Vonderlin et al. (2018) found that those who are exposed to abuse for longer periods of time, and who experience the abuse from an earlier age, will display more dissociation traits. In another study, with a sample of women prisoners including sexual offenders and non-sexual offenders, it was found that those who committed sexual offenses had been sexually abused themselves and had experienced the abuse for a longer time period than those who did not commit sexual offenses (Christopher et al., 2007).

Experiencing abuse during childhood has been found to contribute to the development of clinical psychopathy (Craparo et al., 2013) and can have a significant physical and psychological impact on a person (Dye, 2018). Psychological disorders including oppositional defiant disorder (ODD), depression, attention deficit hyperactivity disorder (ADHD), and anxiety (Dye, 2018; see Ford, 2002) have been shown to be strongly associated with the exposure to various types of trauma during developmental years. In line with the existing literature, as mentioned above,

indicating a strong association between the experience of childhood abuse/trauma and the development of ODD, ADHD, and clinical psychopathy, the present study explored such association between the development of SP and early exposure to trauma.

The purpose of present research was to investigate the role of early exposure to trauma in the development and manifestation of SP and make a contribution to the field of early identification and intervention in order to reduce the chances of SP to advance to clinical psychopathy. However, the present study's findings do not show a strong relationship between early exposure to trauma and the development and manifestation of SP. Despite non-significant, the results raise the need for investigating any moderating and mediating variables such as intelligence, psychological hardiness etc. which when combined with the exposure to trauma could raise the risk of developing SP (Sandvik et al., 2015).

Limitations and Suggestions

The findings of this study must be considered with caution. The data collected was gained through self-report measures. Participant's responses to the online survey may not be a true reflection of their personality and childhood experiences due to the participant providing responses based on social desirability. The questions from the online survey require a significant amount of personal insight, with some participants potentially lacking insight into their own behaviors and thus not providing responses that are a true reflection of themselves. Manipulation and superficial charm are common traits displayed by both subclinical and clinical psychopaths. If a participant was a true psychopath, they have the ability to manipulate answers and provide responses that would mask their true personality and thus false responses may have been provided. This may explain only having one participant who received a high score on the measure of SP. This single score would have also skewed the data. If the study had been conducted with only participants who received high psychopathic scores, the results may have supported the present studies hypotheses. Also, the sample used in this study was a convenient sample due to the survey being posted on mainly university social media pages, leading to the majority of participants being university student and thus lacking a broader range of participants from the wider community.

Implications

- Future research into SP can focus on trauma and other factors such as level of intelligence, type of and traits of dominance, grandiosity, and brain structure in order to investigate the etiological factors influencing the emergence of subclinical psychopathology, employing a mediating moderating analysis.
- Future research can also be conducted on the factors of attachment and parental bonding as they relate to SP in line with research on these factors in the context of developing clinical psychopathy.
- Future research should examine each form of abuse separately to understand if a specific form of trauma/abuse contributes more to the development of SP.
- Another area that would assist in examining the impact of trauma/abuse is to take into account the relationship with the person at whose hands an individual had suffered including the impact of neglect. It was beyond the scope of this study to focus on the relationship with the person who caused the trauma. Future research can focus on that factor and be more specific about the effects.

- Future studies should explore protective factors that reduce psychological impact of childhood abuse.

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Contribution of Authors

Sr. No.	Author	Contribution
1.	Alexandrea Whyte	Study design, Ethics Application, Data collection, Results analysis and write up
2.	Neelofar Rehman	Stay design, Ethics Application, Data Collection, Results analysis, write up, review and editing