Personality and Individual Differences 81 (2015) 148–154

Contents lists available at ScienceDirect

Personality and Individual Differences

journal homepage: www.elsevier.com/locate/paid

Evaluating emotion processing and trait anxiety as predictors of non-criminal psychopathy ☆

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ARTICLE INFO

Article history:
Received 30 April 2014
Received in revised form 26 August 2014
Accepted 30 August 2014
Available online 27 September 2014

Keywords:
Psychopathy
Emotion manipulation
Trait anxiety
Emotion regulation
Structural equation modelling

ABSTRACT

This study's primary aim was to investigate if trait anxiety and other emotion processing variables would be additive predictors that will differentially predict primary and secondary psychopathy, as previous research has yet to examine the relative contributions of these constructs in a non-criminal population. A convenience community sample ($N = 470$) was obtained using an online survey. Structural equation modelling analyses demonstrated that trait anxiety, reappraisal and emotional manipulation are significant predictors of primary psychopathy. Trait anxiety, emotion manipulation, poor emotional skills and general emotion dys-regulation were found to be significant predictors of secondary psychopathy. From these findings, particularly noteworthy relationships are those between trait anxiety and secondary psychopathy (16% of the variance), and emotion manipulation and primary psychopathy (17.64% of the variance). In addition, there was preliminary evidence that emotion processing variables may partially mediate the relationship between trait anxiety and psychopathy subtypes. These findings have important implications, including the relevance of the findings to psychopathy conceptualised as a personality trait and the applicability of the findings in different non-forensic settings.

1. Introduction

Psychopathy can be described as a constellation of destructive characteristics that include callousness, egocentricity, manipulation and deceit (Hare, 1996). Evidence suggests that psychopathy as a personality trait (a contemporary view of psychopathy that opposes the more traditional taxonomic conceptualisation) is associated with broad deficits in emotional processing (e.g. Del Gaizo & Falkenbach, 2008), however there is a lack of investigation into psychopathy and emotion regulation and manipulation. There is also evidence that suggests anxiety levels may phenotypically distinguish between two subtypes of psychopathy; primary (concerned with interpersonal characteristics associated with psychopathy) and secondary (concerned with chronic antisocial behaviours associated with psychopathy) psychopathy (Lykken, 1957). Research investigating these relationships has primarily been conducted in forensic and institutionalised settings with psychopathy assessed using taxonomic measures such as the Psychopathy Checklist-Revised (PCL-R, Hare, 2003), requiring clinician ratings and access to administrative records. There has been markedly less research conducted in non-criminal community samples where the prevalence of psychopathy is low (Levenson, Kiehl, & Fitzpatrick, 1995). The development of self-report measures of psychopathic traits removes the need for reliance on administrators, providing a more economic approach to psychopathy assessment that can be used in community samples. This article outlines a study which investigates the relative contributions of trait anxiety and emotion processing to predicting self-report primary and secondary psychopathy in a community sample.

1.1. Anxiety and psychopathy

Much research has examined the relationship between anxiety and psychopathy since Karpman (1941) first theorised clear differentiations in anxiety between subtypes of psychopathy, positing that primary psychopathy is marked by a lack of anxiety, whereas secondary psychopathy is associated with chronic intense anxiety.

In contemporary research, the relationships between psychopathy subtypes and trait anxiety have become an area of focus. In a male criminal sample, Harpur, Hare, and Hakstian (1989) demonstrated significant negative correlations with PCL Factor 1 scores and the State Trait Anxiety Inventory-Trait subscale (STAI-T; Spielberger, Gorsuch, & Lushene, 1970) and significant positive correlations between PCL Factor 2 and STAI-T scores, suggesting an inverse relationship between Factors 1 and 2 scores in regards

☆ This article is a Special issue article – "Young researcher award 2014".

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http://dx.doi.org/10.1016/j.paid.2014.08.044
0191-8869/

to trait anxiety. Measuring self-report trait anxiety allows the investigation of anxiety in relation to psychopathic subtypes to be feasibly opened up to larger, more heterogeneous samples. Less conclusive results have been found in non-criminal samples. Hale, Goldstein, Abramowitz, Calamari, and Kosson (2004) examined possible relationships between several anxiety measures (including the STAI-T) and psychopathy scores, which revealed mixed findings concerning the differentiation of primary and secondary psychopathy defined by PCL-R Factors 1 and 2 scores. More recently, Visser, Ashton, and Pozzebon (2012) demonstrated that a proxy measure of low anxiety was unrelated to scores on two self-report measures of psychopathy. Given these inconsistencies within previous research concerning the trait anxiety–psychopathy relationship, there is a strong rationale for further investigating the relationship, particularly in non-criminal settings where limited and inconclusive research has been conducted.

1.2. Emotion processing and psychopathy

Affective deficits arising from difficulties in processing emotion are understood to be a central characteristic of psychopathy (e.g. Rogstad & Rogers, 2008). Deficits in emotion processing have been examined in relation to psychopathic traits (e.g. Herpertz & Sass, 2000; Steuerwald & Kosson, 2000). A particular focus has been on deficits in emotion recognition and acknowledgement, largely adopting experimental methodologies involving measurement of physiological responses or cognitive processing. Wilson, Juodis, and Porter's (2011) meta-analysis of studies related to emotion and psychopathy concluded that effect sizes in this field appear to be over-estimated.

Much less research has investigated emotion processing in primary and secondary psychopathy subtypes. The limited research that has been conducted has largely been in non-criminal undergraduate samples (e.g. Ali, Amorim, & Chamorro-Premuzic, 2009; Del Gaizo & Falkenbach, 2008), all of which report some form of differentiation in emotional deficits across the primary and secondary psychopathy subtypes, mostly highlighting that primary psychopathy appears more strongly associated with affective deficits than secondary psychopathy. This overall finding makes sense given the traditional description of primary psychopathy involves the affective components of the construct (Karpman, 1941).

One aspect of deficit in emotion processing that has been largely ignored in relation to psychopathy has been emotion dys-regulation, an area which currently is represented by few published studies (Casey, Rogers, Burns, & Yiend, 2012; Ridings & Lutz-Zois, 2014). Casey et al. (2012) were unable to demonstrate a relationship between psychopathy measured by the PCL-R and emotional suppression in an experimental setting with an offending sample. More promising results in a similar sample were produced by Heinzen, Koehler, Smeets, Hoffer, and Huchzermeier (2011) who found psychopathic traits to be positively related to maladaptive emotion regulation strategies. Ridings and Lutz-Zois (2014) found that general emotion dys-regulation as measured by the Difficulties in Emotion Regulation Scale (DERS; Gratz & Roemer, 2004) appeared to be a mediator of the relationship between alexithymia and secondary psychopathy in a university student sample. It remains to be seen, however, if such a finding may be replicated in a larger, more heterogeneous community sample.

There are other multidimensional conceptualisations of emotion regulation, however, that may warrant exploration in relation to psychopathy. Gross's (2002) process model of emotion regulation is one dominant theory that focuses on reappraisal and suppression; adaptive and maladaptive regulatory strategies of emotion respectively. Reappraisal is considered adaptive because it involves cognitively neutralising emotional situations, requiring less cognitive effort than suppression, a maladaptive regulation strategy which involves inhibition of the expression of emotions (Gross, 2002). Long-term emotion regulation deficiencies are key components underlying adult psychopathology (Aldao, Nolen-Hoeksema, & Schweizer, 2010). Individuals who chronically suppress emotion often find it difficult to control a wide range of impulsive behaviours. Given that impulsivity is of direct relevance to psychopathy, particularly secondary psychopathy (Hare, 1996), further investigation into relationships between suppression and psychopathic traits is warranted. There has been no published research to date that has been concerned with self-reported emotion regulatory processes and their relationship with psychopathy.

Another facet of emotion processing that has only recently begun to gain traction in relation to psychopathy is emotional manipulation. This is surprising given that ability to manipulate other people's emotions is considered a prime aspect of psychopathy (Hare, 1996). The association is largely based on longstanding clinical observations (e.g. Cleckley, 1964) rather than empirical investigations. Traditional research on emotion manipulation has focused on specific manipulation tactics (e.g. Buss, 1992) rather than the construct as a holistic ability. More recent research has involved the use of the newly developed self-report Emotion Manipulation Scale (EMS; Austin, Farrelly, Black, & Moore, 2007). Primary and secondary psychopathy traits have both been shown to be related to general perceived manipulative ability (Grieve & Mahar, 2010). In addition, differentiations across primary and secondary psychopathy have been made through the use of two of the EMS subscales which measure poor emotion perception skills and emotional concealment; it was found that secondary but not primary psychopathy was related to these subscales (Grieve & Mahar, 2010).

1.3. Rationale and hypotheses

The research reviewed above suggests that primary and secondary psychopathy traits are differentially associated with anxiety, emotion regulation deficits and emotion manipulation. Based on previous literature, we developed a model of anxiety, emotion regulation deficits and emotion manipulation as predictors of primary and secondary psychopathy for testing. The hypotheses underlying this model are:

Trait anxiety will be a significant negative predictor of primary psychopathy and a significant positive predictor of secondary psychopathy.
Reappraisal and emotion manipulation will be significant positive predictors of primary psychopathy.
Suppression, General emotion dys-regulation, Poor emotional skills, Emotional concealment and Emotion manipulation will be significant positive predictors of secondary psychopathy.

The hypothesised relationships between these multiple predictors and the psychopathy subtypes will be investigated using structural equation modelling (SEM) as the primary analytical technique. SEM is a sophisticated multivariate analysis technique that allows multiple causal pathways between latent variables to be tested while accounting for measurement error (Kline, 2005). Previous research has primarily adopted designs that do not allow for inferences to be made about predictors of psychopathy (e.g. Ali et al., 2009; Del Gaizo & Falkenbach, 2008). Using SEM methods may assist in increasing understanding of the aetiology of psychopathy.

2. Methodology

2.1. Participants

Participants were 470 members of the general community (349 females, 121 males, *M* age = 25.38, *SD* age = 9.50), recruited