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Remorse, Psychopathology, and Psychopathy among Adolescent Offenders

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Abstract

Remorse has long been important to the juvenile justice system. However, the nature of this construct has not yet been clearly articulated, and little research has examined its relationships with other theoretically and legally relevant variables. The present study was intended to address these issues by examining relationships among remorse, psychopathology, and psychopathy in a sample of adolescent offenders (N = 97) using the theoretically and empirically established framework of guilt and shame (Tangney & Dearing, 2002). Findings indicated that shame was positively related to behavioural features of psychopathy, whereas guilt was negatively related to psychopathic characteristics more broadly. In addition, shame was positively associated with numerous mental health problems whereas guilt was negatively associated with anger, depression, and anxiety. These results provide empirical support for theory that psychopathy is characterized by lack of remorse (e.g., Hare, 1991), and also underscore shame and guilt as potentially important treatment targets for adolescent offenders.

Remorse, Psychopathology, and Psychopathy among Adolescent Offenders

The construct of remorse has played a long-standing role in the juvenile justice system. Remorse is emphasized in Canadian and United States case law (e.g., *Hall v. State,* 1998; *R. v. C.,* 2005), legal scholarship and theory (e.g., Duncan, 2002), forensic psychological assessment instruments (e.g., Forth et al., 2003; Frick & Hare, 2001), and the popular press (e.g., "Jordan Brown", 2010). Despite the apparent importance of this construct for justice-involved youth, however, little research has investigated its relationships with other theoretically related and forensically relevant characteristics. The purpose of the present study was to examine the relationship of remorse with psychopathic characteristics and psychopathology among adolescent offenders.

Although remorse has been underscored in numerous arenas relevant to juvenile law, no well-articulated and consistent definition of this construct exists. Case law has defined remorse as being "sorry" about what happened (*R. v. Funger,* 1992) or as being concerned about the victim (*R. v. D.H.,* 1993). Psychological science has treated remorse as a negative emotion following a misdeed (Frick & Hare, 2001), or as analogous to the constructs of empathy (Borum et al., 2006) and guilt (e.g., Forth et al., 2003; Tangney et al., 2011; ten Brinke et al., 2012). It appears that the common thread among these ideas of remorse is that it is an unpleasant affective event that follows a transgression. However, it remains unclear as to the emotion(s) which most closely describe this experience, any accompanying cognitions, and the focus of these thoughts and feelings (e.g., on the transgression itself or elsewhere).

In the absence of relevant research and theory addressing these questions, a useful means of defining remorse may be the framework of guilt and shame. Both emotions involve negative affect (e.g., Tangney et al., 1992), which aligns with the typical usage of remorse in forensic contexts (e.g., Frick & Hare, 2001). However, according to the framework initially described by Lewis (1971) and subsequently supported in an array of theory and empirical research (Tangney & Dearing, 2002; Tangney, Stuewig, & Mashek, 2007; Tracy & Robins, 2006), the focus of guilt differs from that of shame. In particular, whereas the target of guilt is a specific event or behaviour (e.g., "I *did* that bad *thing*"), shame involves a negative evaluation of the *self* as a corollary of the event or behaviour (e.g., "*I* did that bad thing and therefore *I* am a *bad person*").

This definitional approach may be useful in forensic contexts involving "remorse". In particular, given that crime is an instance of wrongdoing that happens to be a social and moral transgression, it is a potential trigger of guilt and shame. For example, following commission of an assault, the offender could be experiencing guilt focused on the event (e.g., that *assault* was a *bad thing* to do), shame focused on the self (e.g., *I* am a *bad person* for committing that assault), or some combination thereof. Therefore, rather than presently undefined terms such as "remorse", the better articulated framework of guilt and shame may provide a more precise and comprehensive picture of an offender's affective experience.

The relevance of shame and guilt to the law has been further emphasized by the recent development of the Offence-Related Shame and Guilt Scale (ORSGS; Wright & Gudjonsson, 2007). The ORSGS was created based on the notion that criminal offences, being social and moral transgressions, could be potent triggers of guilt and shame. The authors (Wright &

Gudjonsson, 2007) argue that offence-related shame and guilt should be measured distinctly in order to gain the fullest picture of an offender's affective response. Initial research on the ORSGS (Wright & Gudjonsson, 2007; Wright et al., 2008) indicates that offence-related shame and guilt are related to one another and are best captured by a two-factor model, which aligns with studies on non-offence-related shame and guilt (e.g., Tangney et al., 2007). However, like non-offence-related shame and guilt, no research has yet examined the relationship of ORSGS scales to other theoretically and forensically relevant variables among adolescent offenders.

Guilt, Shame, and Psychopathy

Perhaps the most forensically relevant of such constructs is the personality disorder of psychopathy. Psychopathy involves a confluence of affective, interpersonal, and antisocial traits (Cleckley, 1941) including shallow affect, grandiose sense of self, manipulation for personal gain, and criminal versatility (Hare, 1991). Lack of remorse is considered a key feature of psychopathy vis-à-vis the deficient affective experience that is a hallmark of the disorder (Cooke & Michie, 2001; Hare & Neumann, 2009).

Despite the importance of remorse to psychopathy, this area of research is similar to the law and other social scientific literature in its failure to provide a clear definition of this construct. In particular, remorse is treated as being similar to guilt (Forth, Kosson, & Hare, 2003) or as an unpleasant emotion after a misdeed (Frick & Hare, 2001). In turn, this ambiguity raises the question as to whether consideration of guilt and shame may provide a clearer picture of the nature of remorse in the context of psychopathy. Guilt, in particular, is characterized by acknowledgment of a problematic behaviour and a negative evaluation of that action (Tangney & Dearing, 2002), and therefore runs contrary to psychopathic features such as irresponsibility and failure to accept responsibility (Forth et al., 2003). Furthermore, both guilt and shame are strong self-conscious emotions (Lewis, 1971), and thus stand in stark contrast to the psychopathic characteristic of shallow affect (Forth et al., 2003).

The specific case of shame alone, however, may present a more complex picture. On one hand, Cleckley (1964) stated that "whether judged in light of his conduct, his attitude, or of material elicited in psychiatric evaluation, he [the psychopath] shows almost no sense of shame" (p. 372). Indeed, given that shame is characterized by a negative evaluation of the self (Tangney & Dearing, 2002), this emotion runs contrary to features of psychopathy such as grandiose sense of self-worth and impression management.

On the other hand, recent research has demonstrated that the antisocial and behavioural features of psychopathy are actually *positively* associated with negative affect (e.g., Verona et al., 2001; Hicks & Patrick, 2006). This research aligns with theories of primary and secondary psychopathy (Karpman, 1941; Skeem et al., 2003), which hold that some psychopathic traits may similarly be *positively* related to shame (Morrison & Gilbert, 2001). Proponents of these theories state that there are two different types of psychopathy (i.e., primary and secondary) that differ based on affective functioning. Specifically, primary psychopaths are thought to lack affective response whereas secondary psychopaths are considered to be affectively intact. Morrison and Gilbert (2001) posit that this difference in affective responsiveness between primary and secondary psychopathy can lead secondary psychopaths to feel socially inferior to primary psychopaths. In turn, secondary psychopaths are especially vulnerable to the experience of

shame. Stated differently, perceptions of social inferiority can involve concomitant low self-esteem and negative self-evaluation (Morrison & Gilbert, 2001), which are, in turn, consistent with the experience of shame (e.g., Lewis, 1971). Accordingly, this theory would suggest that features of *secondary* psychopathy may in fact be *positively* related to shame.

To date, only one study has addressed this possibility. Campbell and Elison (2005) administered a self-report measure of psychopathy to a sample of noncriminal adults in the community. Consistent with Morrison and Gilbert's (2001) theory, secondary psychopathic characteristics were related to shame responses such as withdrawal and negative self-evaluation. These results suggest that contrary to assertions that psychopathy involves "lack of remorse" (e.g., Forth et al., 2003), the framework of guilt and shame may reveal more complex relationships among these variables. However, given that participants in the Campbell and Elison (2005) study were noncriminal adults, it is currently unknown as to whether their findings would generalize to an adolescent offender population.

Shame, Guilt, and Mental Health

Much empirical attention has been paid to relationships among shame, guilt, and psychological symptoms. In the case of shame, a sizeable array of studies with adults clearly demonstrates that this emotion is related to a range of problems including depression, anxiety, eating disorders, post-traumatic stress disorder, suicidal ideation, and substance abuse (e.g., Andrews et al., 2000, Ashby et al., 2006, Brewin et al., 2000, Ghatavi et al. 2002, Harper & Arias, 2004, Murray et al., 2000, Sanftner et al., 1995, Stuewig & McCloskey, 2005).

Guilt, in contrast, is *not* associated with problems such as depression, anxiety, and low self-esteem (Leskela et al., 2002; Quiles & Bybee, 1997; Schaefer, 2000; Stuewig & McCloskey, 2005; Tangney & Dearing, 2002). Guilt may even serve as a protective factor against psychopathology in some cases, as it is associated with better anger management (Tangney et al., 1992), later onset of alcohol use (Tangney & Dearing, 2002), and reduced likelihood of drug and alcohol problems (Dearing et al., 2005). These latter findings may be due to guilt-related tendencies to accept responsibility and to repair problems (Tangney et al., 2007).

In its totality, this body of research indicates that shame is a risk factor for numerous psychological problems whereas guilt is unrelated or potentially protective against these problems. However, no research has yet been carried out to investigate these relationships among adolescent offenders, in whom rates of mental disorders are strikingly high (Abram et al., 2007; Teplin et al., 2006; Wasserman et al., 2004). If shame is associated with psychopathology among young offenders, it could represent an important treatment target.

Developmental Differences in Guilt and Shame

To best understand adolescents' experiences of guilt and shame, as well as how these emotions relate to psychopathic characteristics and mental health, it is also important to take into account developmental differences that occur during this time period. Adolescence is a time of enormous developmental change (Grisso, 1998), which raises questions as to whether youth of differing ages have differing capacities to experience and express guilt and shame. Empirical findings relevant to this question, however, are mixed. An early study (Tangney, 1992) indicated that guilt- and shame-proneness increased during adolescence. This was not the case in a later study of 5th, 8th, and 11th-grade youth (Bybee, 1998), in which guilt declined with age for boys

but increased for girls. Further varying findings were obtained in a recent study of 12 to 20 year-olds (Walter and Burnaford, 2006), which indicated that guilt increased with age for both genders but that shame increased only for girls. Finally, results from an ongoing longitudinal study indicate that shame and guilt are relatively stable from ages 10 to 18 (Tangney & Dearing, 2002). These inconsistent findings make it difficult to determine the developmental and gender differences in shame and guilt that might be anticipated for adolescents, and suggest that further research is necessary in order to elucidate these relationships. This is particularly the case for justice-involved youth given that "remorse" is emphasized in the law (e.g., Duncan, 2002).

The Present Study

The present study was intended to address important gaps in the research literature related to the construct of "remorse". Most fundamentally, although remorse has long been related to the juvenile justice system vis-à-vis case law (e.g., *Hall v. State,* 1998; *R. v. C.,* 2005), legal scholarship and theory (e.g., Duncan, 2002), forensic psychological assessment instruments (e.g., Forth et al., 2003; Frick & Hare, 2001), and the popular press (e.g., "Jordan Brown", 2010), little conceptual clarity exists regarding the nature of this construct. Accordingly, we used the well-established theoretical framework of guilt and shame (Tangney & Dearing, 2002) to guide our empirical investigations.

Secondly, given the centrality of "remorse" to adolescent psychopathic traits (Forth et al., 2003) and a paucity of relevant literature in this area, we investigated relationships among guilt, shame, and psychopathy. In light of research suggesting that psychopathy involves lack of remorse, shallow affect, and failure to accept responsibility (Hare, 1991; Frick & White, 2008), we expected that guilt would be negatively related to psychopathic traits. Given other research indicating that shame is positively related to non-affective features of psychopathy (Campbell & Elison, 2005), we anticipated that shame would be positively related to the antisocial and behavioural characteristics of the disorder.

Thirdly, despite extremely high rates of psychopathology among adolescent offenders (Teplin et al., 2006) and findings in the *adult* literature that shame is strongly linked numerous mental health problems (Tangney et al., 2007), no research has yet investigated whether shame is related to psychopathology among *youth* in the justice system. Thus, we investigated the relationship of guilt and shame with psychopathology among adolescent offenders. Based on prior findings, we anticipated that shame would be positively associated with mental health problems while guilt would be unrelated or negatively related.

Finally, we investigated developmental and demographic differences in guilt and shame. Given the inconsistency evidenced in prior empirical literature (Bybee, 1998; Tangney et al., 1991; Walter & Burnaford, 2006), these analyses were largely exploratory. However, in light of theory that capacities for guilt may increase with age and accompanying cognitive sophistication (e.g., Hoffmann, 1978; 1990), we hypothesized that older adolescents would evidence higher levels of guilt and shame than younger adolescents.

Method

Participants

Participants in this study were adolescents on probation in British Columbia, Canada. Their demographic characteristics are presented in Table 1. Participants ranged in age from 12 to 17 (M = 15.88, *SD* = 1.15) and were mostly male (*n* = 68; 70.1%), although almost a third were female (*n* = 29; 29.9%). The majority of youth identified as Caucasian (*n* = 53; 54.6%), although a substantial proportion indicated that they were at least partly Aboriginal (*n* = 18; 18.6%). The remainder of participants (*n* = 26; 26.8%) identified as another ethnicity, including Asian, Black, and Hispanic. Youth had an average of 2.69 index offence charges (SD = 3.39) and 1.99 index offence convictions (SD = 1.66) leading to their being on probation during the present study.

Procedure

Youth were recruited for the study from 11 probation offices across the Lower Mainland of British Columbia. To be eligible for participation, youth had to be on probation, reside in the Greater Vancouver Regional District, and be between the ages of 12 and 17 years old (inclusive). Youth participated in the present study in the context of a larger research project intended to evaluate the mental health, risks, and strengths of adolescent offenders.

Data collection included a structured interview, completion of self-report measures, and a review of the youth's probation file. Data collection was completed by research assistants (N = 12) who received extensive training related to study protocol and assessment measures. Training involved two days of didactic instruction, completion of four mock risk assessment cases, and completion of an actual case while accompanied by a more experienced research assistant.

All procedures used in the present study were in compliance with ethics requirements. Data were collected using non-identifiable participant numbers. Participants were informed that confidentiality would be maintained except in cases of imminent risk of harm to self or others, reported child abuse, or a court subpoena. The academic institutions and community agencies involved in this study provided ethics approval for this research.

Measures

Guilt and shame. Two instruments were used to evaluate guilt and shame. The Test of Self-Conscious Affect (TOSCA-A; Tangney, 1992) was administered in order to assess these emotions in the context of situations unrelated to offending. The TOSCA-A includes descriptions of 15 hypothetical scenarios drawn from written accounts of personal shame and guilt experiences of youth (e.g., "while playing around, you throw a ball and it hits your friend in the face"). Participants are asked 15 to rate their shame and guilt reactions to each scenario on a five-point Likert scale. The response domains on include descriptors that were previously found to be indicative of phenomenological aspects of shame (e.g., "I would feel stupid that I can't even throw a ball") and guilt (e.g., "I would apologize and make sure my friend feels better").

The guilt and shame scales have demonstrated acceptable Cronbach's alpha values (guilt = .86; shame = .80; Tangney & Dearing, 2002). In terms of validity, the guilt scale is positively related to empathy and constructive anger management strategies (Tangney, 1991, 1994, 1995; Tangney, Wagner, Fletcher, & Gramzow, 1992; Tangney, Wagner, Hill-Barlow, Marschall, &

Gramzow, 1996). The shame scale is negatively related to empathy and positively related to maladaptive anger responses such as aggression (Tangney, 1991; Tangney et al., 1992, 1996). Little research has examined the TOSCA-A among justice-involved youth, but Robinson et al. (2007) reported that the guilt scale was associated with lower levels of self-reported antisocial behaviors and attitudes among incarcerated adolescents.

In addition to the TOSCA-A, the Offense-Related Shame and Guilt Scale (ORSGS; Wright & Gudjonsson, 2007) was administered in order to assess guilt and shame as related to past offending behaviour. Because the ORSGS was introduced in the study later than the TOSCA-A, 58 of the total 97 participants completed this measure. The ORSGS includes 16 items scored on a 7-point Likert scale. Example items include "I feel no need to make amends (make up) for what I did" and "I will never forgive myself for what I have done". Little research has been conducted with the ORSGS. However, a preliminary factor analysis of the measure in a study of incarcerated adult inmates (Wright & Gudjonsson, 2007) indicated that a two-factor guilt and shame solution provided the best fit for the data. This study provides evidence in support of separate constructs of offence-related guilt and shame.

Mental health. The Massachusetts Youth Screening Instrument-2 (Grisso & Barnum, 2001) was used to assess mental health. The MAYSI-2 is a self-report inventory designed for justice-involved youth. It consists of 52 items, each of which is scored on a *yes* or *no* basis. There are seven subscales, including Alcohol/Drug, Angry-Irritable, Depressed-Anxious, Somatic Complaints, Suicide Ideation, Traumatic Experiences, and Thought Disturbance (for boys only). There is strong evidence for the reliability and validity of the MAYSI-2 (Archer et al., 2004; 2010; Grisso & Barnum, 2006).

Psychopathic features. The Psychopathy Checklist: Youth Version (PCL:YV; Forth et al., 2003) was used to assess psychopathic traits. The PCL:YV consists of 20 items and is scored by a trained rater based on interview and collateral information. Each item is scored on a 3-point scale (0 = not present; 1 = possibly or partially present; 2 = definitely present). Several factor models have been put forth to explain the structure of the PCL:YV (Harpur, Hare, & Hakstian, 1989; Cooke & Michie, 2001; Hare & Neumann, 2005), with recent research indicating that both the three- and four-factor models generally yield acceptable fit (Cauffman et al., 2009; Neumann et al., 2007; Neumann et al., 2006; Salekin et al., 2006). In this study, we used the four-factor model (Hare & Neumann, 2005), which consists of interpersonal, affective, lifestyle, and antisocial factors.

There is a strong body of evidence supporting the psychometric features of the PCL:YV. In regard to internal consistency, alpha coefficients range from .79 to .94 for total scores (Forth et al., 2003; Vitacco et al., 2010) and alphas for factor scores range from .50 to .82 (Andershed, Hodgins, & Tengstrom, 2007; Forth et al., 2003; Vitacco et al., 2010; Vitacco, Neumann, Caldwell, Leistico, & van Rybroek, 2006). Intraclass correlation coefficients range from .82 to .98 (Andershed et al., 2007; Cauffman et al., 2009; Das et al., 2009; Forth et al., 2003). PCL:YV scores are also correlated with externalizing psychopathology, violence, antisocial behaviour, and recidivism (Kosson et al., 2002; Kubak & Salekin, 2009; Murrie et al., 2004; Salekin, 2008; Salekin et al., 2004; Schmidt et al., 2006; Vitacco et al., 2006; 2010).

Data Analysis

      Missing data. Missing data were examined as an initial step in data analysis. This examination was guided by the recommendations set forth by Downey and King (1998), which indicate that data should be retained if the number of participants with missing data is less than 20% of the total sample and if the missing data itself constitutes less than 20% of the total measure. With regard to the TOSCA-A, missing data were observed among 6 participants (i.e., 6.2% of the total sample) and consisted of between 1 and 8 items (i.e., 1.5% to 12% of the total measure). With regard to the ORSGS, missing data were observed among 5 participants (i.e., 5.2% of the total measure) and consisted of between 1 and 2 items (i.e., 6% or 12% of the total measure). These data were retained because they involved less than 20% of participants and less than 20% of the total measures, therefore adhering to the guidelines indicated by Downey and King. In these cases, item means were used to replace the missing item values because this method is considered a good representation of the original data in the current scenario (i.e., when the number of participants with missing data *and* the number of items missing are 20% or less), and is preferable to the person mean substitution method because it does not artificially inflate indices of scale reliability (Downey & King, 1998).

      Power analysis. Data analytic methods used in this study included bivariate and partial correlations, independent samples t-tests, ANOVA with three groups, and various regression equations with a maximum of three independent variables. With regard to the TOSCA-A, given that 97 participants completed the measure, statistical power was sufficient to detect medium effect sizes for these analyses using $p = .05$ (Cohen, 1992). With regard to the ORSGS and ICU, these measures were completed by 58 and 56 participants (respectively), indicating that statistical power was sufficient to detect large effect sizes for analyses using $p = .05$.

      Internal consistency. Cronbach's alpha (1951) was calculated in order to address internal consistency. For the TOSCA-A, this analysis produced coefficient alphas of .89 for Guilt and .82 for Shame. These values reflect good internal consistency and are consistent with those obtained in previous research (Tangney et al., 1992). For the ORSGS, alphas were .70 for Guilt and .75 for Shame. These alphas are lower than in a prior exploratory study (Wright & Gudjonsson, 2007), but are still considered acceptable. For the PCL:YV, and consistent with prior research (e.g., Forth et al., 2003), a Cronbach's alpha of .88 was obtained. Finally, the MAYSI-2 had a Cronbach's alpha of .87, which is in concordance with prior research (e.g., Archer et al., 2010) and demonstrates excellent internal consistency.

      Interrater reliability. To determine the interrater reliability of the PCL:YV, ten cases (10.31%) were randomly selected. For these cases, two research assistants attended the interview, reviewed file information, and made ratings independently. Subsequently, a single-rater intraclass correlation coefficient (ICC) was calculated using absolute agreement for a two-way random effects model (McGraw & Wong, 1996). This analysis produced an ICC of .80, which is considered good interrater reliability and is consistent with previous research (e.g., Spain et al., 2004).

Results

Descriptive Statistics

Means, standard deviations, and ranges were calculated for the TOSCA-A, ORSGS, PCL:YV, and MAYSI-2. These statistics are presented in Table 2. Mean MAYSI-2 scores were comparable to those in previous studies (e.g., Archer et al., 2004, 2010), suggesting that the severity of mental health problems among participants in the present sample is likely similar to participants in other research. In the case of the PCL:YV, mean scores were approximately 4 to 7 points higher than in previous studies (e.g, Andershed et al., 2007; Cauffman et al., 2009, Marczyk et al., 2003; Vincent et al., 2008). These scores are sufficiently high to conduct meaningful analyses on psychopathic characteristics in the present study.

Demographic Characteristics, Guilt, and Shame

Analyses were undertaken to determine whether age, gender, or ethnicity had any significant relationships with guilt and shame. For age, bivariate Pearson correlations between the youth's reported age and guilt and shame scores indicated a significant inverse relationship between age and ORSGS Shame ($r = -.29$, $p < .05$). This indicates that older youths were less likely to experience shame related to their offence. In light of this finding, supplementary correlations were subsequently calculated between age, MAYSI-2 scales, and PCL:YV scores in order to identify potential intervening variables. In other words, we investigated whether older youth were different with respect to any mental health or psychopathic characteristics that could account for their lower offence-related shame. However, none of these latter correlations were significant (ps $> .10$), providing further evidence for a meaningful inverse relationship between age and offence-related shame.

For gender, an independent samples t-test revealed no significant differences between males and females on any of the four scales of guilt and shame (ps $> .10$). For ethnicity, youths' reported race was trichotomized into the categories of Caucasian, Aboriginal/partly Aboriginal, and Other/Mixed. Four one-way ANOVAs were subsequently conducted to compare youths' scores on the TOSCA-A and ORSGS scales of guilt and shame. These analyses revealed no significant relationships between ethnicity and guilt and shame scores, Fs < 3.0, ps $> .06$.

Guilt and Shame

Correlations between the TOSCA-A and ORSGS are presented in Table 3. TOSCA-A Shame and Guilt scores were significantly related, as were ORSGS Shame and Guilt scores. Correlations were medium to large in magnitude (Cohen, 1988), which is consistent with prior research (e.g., Tangney et al., 1992; 1996) indicating the overlapping nature of guilt and shame. In addition, TOSCA Guilt was associated with ORSGS Guilt, suggesting that general guilt and guilt specific to an offence are related constructs. However, TOSCA-A Shame was not related to ORSGS Shame, suggesting distinctions between general propensities towards shame and shame specifically related to an offence.

Mental Health

Bivariate correlations among TOSCA-A, ORSGS, and MAYSI-2 scores are presented in Table 4. However, due to the high correlations observed between guilt and shame (see Table 3),

partial correlations were also conducted between these measures and the MAYSI-2. In other words, we controlled for guilt during each analysis involving shame, and we controlled for shame during each analysis involving guilt. This approach allowed us to determine the extent to which "shame-free guilt" and "guilt-free shame" are related to mental health difficulties. The results of these analyses are presented in Table 5.

TOSCA-A Guilt scores were negatively related to the Alcohol/Drug, Angry/Irritable, Depressed/Anxious, and Traumatic Experiences subscales. In light of these relationships, four linear regression equations were conducted with TOSCA-A Guilt as the independent variable and each of the four MAYSI-2 scales as the dependent variable. To control for the effects of shame, Block 1 of each equation included TOSCA-A Shame while Block 2 included TOSCA-A Shame and TOSCA-A Guilt. The results of these analyses are presented in Table 6. After controlling for the effects of shame, TOSCA-A Guilt inversely predicted scores on the Angry/Irritable and Depressed/Anxious subscales.

TOSCA-A Shame was positively related to the Angry/Irritable, Depressed/Anxious, Somatic Complaints, Suicide Ideation, and Thought Disturbance subscales. In light of these relationships, five linear regression equations were conducted with TOSCA-A Shame as the independent variable and each of the five MAYSI-2 scales as the dependent variable. To control for the effects of guilt, Block 1 of each equation included TOSCA-A Guilt while Block 2 included TOSCA-A Guilt and TOSCA-A Shame. After controlling for the effects of guilt, TOSCA-A Shame positively predicted scores on the Angry/Irritable, Depressed/Anxious, Somatic Complaints, Suicide Ideation, and Thought Disturbance subscales (see Table 6).

ORSGS Guilt was negatively associated with the Angry/Irritable and Depressed/Anxious subscales. In light of these relationships, two linear regression equations were conducted with ORSGS Guilt as the independent variable and each of the two MAYSI-2 scales as the dependent variable. To control for the effects of shame, Block 1 of each equation included ORSGS Shame while Block 2 included ORSGS Shame and ORSGS Guilt. After controlling for the effects of shame, ORSGS Guilt inversely predicted scores on the Angry/Irritable and Depressed/Anxious subscales (see Table 6).

Finally, ORSGS Shame scores were positively associated with the MAYSI-2 Depressed/Anxious subscale. A linear regression equation was conducted with ORSGS Shame as the independent variable and the Depressed/Anxious subscale as the dependent variable. To control for the effects of guilt, Block 1 of the equation included ORSGS Guilt while Block 2 included ORSGS Guilt and ORSGS Shame. After controlling for the effects of guilt, ORSGS Shame positively predicted scores on the Depressed/Anxious subscale (see Table 6).

In sum, these results indicate that shame is positively associated with numerous mental health difficulties. Guilt, in contrast, is negatively associated with anger, mood, and anxiety problems.

Psychopathic Characteristics

Bivariate correlations among TOSCA-A, ORSGS, and PCL:YV scores are presented in Table 7. However, as in the case of the MAYSI-2, we also calculated partial correlations to determine the degree to which "shame-free guilt" and "guilt-free shame" are related to

psychopathic characteristics. The results of these analyses are presented in Table 8. Both total scores and subscale/factor scores of the PCL:YV were examined. Prior research has provided support for both three- and four-factor models of the PCL:YV (e.g., Kosson et al., 2002; Salekin et al., 2004). In this study we employed the four-factor model, which consists of interpersonal, affective, behavioural, and antisocial characteristics (e.g., Neumann et al., 2006).

TOSCA-A Guilt was negatively related to all PCL:YV subscales and the PCL:YV Total score. In light of these relationships, five regression equations were conducted with TOSCA-A Guilt as the independent variable and each of the five PCL:YV scales as the dependent variable. To control for the effects of shame, Block 1 of each equation included TOSCA-A Shame while Block 2 included TOSCA-A Shame and TOSCA-A Guilt. The results of these analyses are presented in Table 9. After controlling for the effects of shame, TOSCA-A Guilt negatively predicted scores on all PCL:YV subscales as well as the total score.

TOSCA-A Shame scores were positively associated with the Behavioural subscale of the PCL:YV. In light of this relationship, TOSCA-A Shame was entered into a linear regression equation as the independent variable and the PCL:YV Behavioural scale was entered as the dependent variable. To control for the effects of guilt, Block 1 of the equation included TOSCA-A Guilt while Block 2 included TOSCA-A Guilt and TOSCA-A Shame. After controlling for guilt, shame positively predicted scores on the PCL:YV Behavioural subscale (see Table 9).

ORSGS Shame scores were not associated with any of the PCL:YV scales. However, ORSGS Guilt scores were negatively associated with the PCL:YV Affective and Behavioural subscales as well as the PCL:YV Total score. In light of these relationships, three regression equations were conducted with ORSGS Guilt as the independent variable and each of the three associated PCL:YV scales as the dependent variable. To control for the effects of shame, Block 1 of each equation included ORSGS Shame while Block 2 included ORSGS Shame and ORSGS Guilt. After controlling for the effects of shame, ORSGS Guilt positively predicted scores on the PCL:YV Affective and Behavioural subscales as well as the PCL:YV Total score (see Table 9).

PCL:YV "Lack of Remorse" item removed. Given that the PCL:YV includes one item to assess "Lack of Remorse", using composite scores of this instrument to examine relationships among guilt, shame, and psychopathic characteristics holds the possibility of criterion contamination (i.e., when the predictor and criterion measures overlap; Anastasi, 1998). To address this issue, scores for the "Lack of Remorse" item were deleted, and results pertaining to the PCL:YV Total score and the Affective factor (i.e., the only factor in which "Lack of Remorse" is included) were re-analyzed.

After the deletion of the "Lack of Remorse" item, TOSCA-A Guilt remained negatively related to the PCL:YV Total score ($pr = -.38$, $p < .01$). When entered into a regression equation as the independent variable and controlling for TOSCA-A Shame in Block 1, TOSCA-A Guilt scores significantly negatively predicted PCL:YV Total scores, $F(1, 87) = 8.17$, $p < .01$, $\beta = -0.47$, $R^2 = .14$. However, in the case of the PCL:YV Affective subscale, the relationship with TOSCA-A Guilt became non-significant after removal of the "Lack of Remorse" item ($pr = -.20$, $p = .06$).

The ORSGS Guilt scale remained negatively related to the PCL:YV Affective subscale (pr = -.38, p < .01) and PCL:YV Total scores (pr = -.34, p = .02). When entered into a regression equation as the independent variable and controlling for ORSGS Shame in Block 1, ORSGS Guilt significantly negatively predicted PCL:YV Affective scores, $F(1, 53)$ = 4.61, p < .01, B = -.43, R^2 = .15, as well as PCL:YV Total scores, $F(1, 53)$ = 3.24, p = .02, B = -.38, R^2 = .11.

In sum, these results indicate that even after removing the "Lack of Remorse" item, offence-related guilt remained a significant inverse predictor of psychopathic characteristics. Non-offence-related guilt remained a significant inverse predictor of PCL:YV Total scores, although its relationship with the Affective scale became non-significant (p = .06).

Incremental Validity Beyond Offense History

Analyses were carried out in order to determine whether the significant relationships described above remained significant after controlling for youths' offence histories. Specifically, for each relationship, a linear regression equation was calculated in which Block 1 consisted of youths' number of charges prior to the index offence (i.e., their history of offending) as well as any other required control variables (i.e., guilt was controlled in all analyses involving shame, and shame was controlled in all analyses involving guilt). Block 2 consisted of number of prior charges, control variables, and the predictive scale of interest.

The results of analyses pertaining to MAYSI-2 scales are presented in Table 10, and results pertaining to PCL:YV scales are presented in Table 11. These findings indicate that all observed relationships remained significant after controlling for youths' offence histories.

Discussion

The present study was intended to investigate the relationship of guilt and shame with psychopathology and psychopathic characteristics among adolescent offenders. We strove to improve upon the limited and vague literature pertaining to the notion of "remorse" by addressing these questions using the theoretically and empirically established framework of guilt and shame (Tangney & Dearing, 2002). Our findings indicated that a) shame was positively related to the behavioural features of psychopathy whereas guilt was negatively related to psychopathic characteristics more broadly; b) shame was related to numerous mental health problems whereas guilt was negatively related to several of these problems; and c) older youth evidenced lower levels of offence-related shame. Moreover, all predictive associations held true after controlling for youths' offence histories. These findings, are discussed below.

Primary Findings

With regard to psychopathy, guilt was negatively related to factor and total scores of the PCL:YV (Forth et al., 2003). With the exception of one factor score, these associations held true after controlling for offending history and removing the PCL:YV "Lack of Remorse" item to address potential criterion contamination. To our knowledge, this is the first study to empirically examined the long-held theoretical assertion that psychopathy is associated with a lack of guilt (e.g., Hare, 1991). In turn, these results provide empirical support for that aspect of psychopathy theory and also for the validity of the TOSCA-A and ORSGS. The consistency of our findings

across both measures (i.e., general guilt versus offence-related guilt) is also in accordance with the notion that psychopathy involves general affective deficits across multiple domains.

In contrast, shame was positively related to the behavioural features of psychopathy. These findings are consistent with prior research indicating that such features tend to be associated with negative affect (e.g., Verona et al., 2001; Hicks & Patrick, 2006). They also align with theory regarding "primary" versus "secondary" psychopathy (Karpman, 1941; Skeem et al., 2003), which holds that shame is *positively* related to *secondary* features of psychopathy (i.e., antisocial and behavioural factors; Morrison & Gilbert, 2001). To our knowledge, the present study is the first to examine such relationships among adolescents, and our findings indicate that prior theory and research related to adults may be generalizable to youth. These results also suggest that contrary to the straightforward "lack of remorse" commonly considered to be a hallmark of psychopathy (e.g., Cleckley, 1941), guilt and shame may operate quite differently in the context of this disorder.

With regard to mental health difficulties, the present findings indicated that shame was positively associated with several different forms of psychopathology. These included depression, anxiety, suicide ideation, and somatic complaints. These results are consistent with prior research indicating similar relationships among noncriminal, community adults (e.g., Andrews et al., 2000, Ashby et al., 2006, Brewin et al., 2000, Ghatavi et al. 2002, Harper & Arias, 2004, Leskela et al., 2002, Sanftner et al., 1995). Accordingly, our findings further underscore the harmful nature of shame (e.g., Tangney & Dearing, 2002), and suggest that its relationship with psychopathology generalizes to an adolescent offender population. Indeed, given that the central features of shame are worthlessness, powerlessness, exposure, and a sense of a defective self (Tangney et al., 2007), it is perhaps not surprising that it is related to a range of pathological symptoms in youth just as it is in adults.

Guilt, on the other hand, was negatively related to problems with anger and irritability as well as depression and anxiety. Prior research with adolescents indicates that guilt is not associated with depression (e.g., Stuewig & McCloskey, 2005); the present results suggest that this emotion may actually protect against mood problems. Our findings are also consistent with prior research indicating that guilt-prone individuals are less likely to engage in aggression when angered (Tangney et al., 1992a; 1996). Guilt is associated with acceptance of responsibility (Tangney & Dearing, 2002) and constructive intentions after wrongdoing (Tangney et al., 2007), which are generally incompatible with the externalization of blame and destructive urges that can often accompany anger (Andrews et al., 2000). Accordingly, our findings emphasize that guilt may be helpful in regulating anger among adolescent offenders.

With regard to developmental differences, and contrary to hypotheses, guilt and shame did not increase with age. Instead, offence-related shame was lower among older youths. This finding was inconsistent with theory that these emotions may increase as youths grow older and experience accompanying cognitive and emotional development (Hoffmann, 1978; 1990). However, it may be difficult to draw such straightforward and linear conclusions about expected adolescent development given the enormous and complex transitions that occur in intellectual, emotional, physical, and social domains during the teenage years (Steinberg & Cauffman, 1999). It is also important to reiterate that prior empirical findings regarding developmental changes in

shame and guilt are inconsistent with respect to age- and gender-related associations (Bybee, 1998; Tangney et al., 1991; Walter & Burnaford, 2006). This inconsistency (in the present study and those preceding it) suggests that much work remains to be done in order to understand developmental differences in shame and guilt. Such research could use indicators of development that may be more nuanced than age, such as perspective-taking, personal responsibility, and self-inhibition (Cauffman & Steinberg, 2000).

Given that prior studies examined community adolescents, it may also be possible that the present sample of adolescent offenders represented a unique population with respect to their emotional functioning and development. It has been noted that although antisocial youth comprise a heterogeneous group, they may evidence some consistent differences from more prosocial adolescents (Robinson et al., 2007), such as lower empathy (Frick, 2003). Furthermore, typical developmental trajectories do not necessarily apply to adolescent offenders. For instance, while most youth demonstrate increases in impulse control as they age, the opposite may be the case for justice-involved adolescents (Monahan, Steinberg, Cauffman, & Mulvey, 2009). Such potential differences between community and offender populations should be taken into account in further developmental research.

The present findings did indicate that older youth were less likely to feel offence-related shame. Given that shame is a destructive emotion (e.g., Tangney & Dearing, 2002), it is possible that this finding represents adaptation to current circumstances. Perhaps older youth are more able to practice coping strategies, for example, such that they do not experience as much shame related to their offence. Further research on age, shame, and coping may clarify this possibility.

Clinical Implications

Given high rates of mental disorder among adolescent offenders (Teplin et al., 2003) and present findings that shame is linked to numerous psychological symptoms, clinicians who assess and treat adolescent offenders may wish to place increased focus on shame. Assessment procedures, for instance, could include administration of the TOSCA-A and the ORSGS, which take relatively little time to administer and score. Using these measures rather than simply asking youths if they feel guilty or shameful may circumvent concerns that adolescents may falsely claim to experience these emotions in order to create a favorable impression for the evaluator (e.g., Borum et al., 2006). Also, given that the TOSCA-A and ORSGS tap different constructs, their use would be consistent with recommendations that problems such as psychopathic traits should be assessed across various contexts (Forth et al., 2003).

In the case of intervention, shame-targeted protocols such as those included in Dialectical Behaviour Therapy (DBT; Linehan, 1993) may be helpful. These procedures have been shown to be effective in reducing shame among adult women diagnosed with Borderline Personality Disorder (Rizvi & Linehan, 2005), and DBT as a complete treatment package has been effective for adolescents presenting with numerous problems (see Groves et al., 2012, for a review). Although these studies suggest that DBT may offer a promising treatment approach for shame, additional research needs to be done in order to determine whether these strategies would be effective among shame-prone adolescent offenders.

Our findings also suggest that guilt, being a protective factor against depression, anxiety, and anger, may be an emotion that clinicians wish to encourage. Currently, restorative justice is the therapeutic approach that most clearly suggests guilt induction given its emphasis on accountability and making amends (e.g., Umbreit & Armour, 2011). However, the primary aim of restorative justice is to meet the needs of victims rather than offenders (Braithwaite, 2002), and it has been strongly emphasized that such programs should not become offender-focused (e.g., Choi et al., 2012; Robinson & Shapland, 2008). A helpful alternative may be interventions that focus specifically on building greater awareness and understanding of guilt, such as those derived from DBT (Linehan, 1993). Such interventions may be especially relevant for youth high in psychopathic characteristics in light of present findings suggesting that these youth have consistent deficits in guilt across multiple domains. Despite concerns that treatment of psychopathic clients may actually increases their ability to manipulate others (e.g., Harris et al., 1994), or that only the behavioural features of psychopathy are amenable to treatment (e.g., Gacono, 2000), emerging evidence suggests that even the presumably deeper-seated affective psychopathic traits may respond to therapy (Caldwell et al., 2012). Hence, as in the case of shame, additional research is needed in order to determine whether guilt-focused interventions are effective among justice-involved youth, both with and without psychopathic traits.

Limitations

The present study should be considered in light of its limitations. First, because the ORSGS was introduced later in the study, fewer participants were able to complete it. Further studies should be undertaken to investigate this measure in the context of a greater number of adolescents.

Secondly, the TOSCA-A may not fully capture the experience of an adolescent offender population. In particular, items that focus on school and family may not be salient for youth who have experienced significant difficulties in these areas. An alternative version of the TOSCA has been developed for adult offender populations (TOSCA-Socially Deviant; Hanson & Tangney, 1996); additional research should be undertaken to explore the possibility of tailoring this measure to adolescent offenders.

Finally, the approach taken to investigate developmental differences in guilt and shame was also limited. Concurrent correlational analyses between age, guilt, and shame revealed no significant associations. However, further studies that use test-retest methods with the same youth followed longitudinally may better clarify these relationships. Addressing this question is important in order to determine whether varying capacities for guilt and shame exist among youth of different ages, and consequently whether different treatment approaches could be tailored to such capacities.

Future Directions

In addition to aforementioned issues related to study limitations, this study highlights other important needs for further research. Guilt and shame should be studied among adolescent offenders in custody, who may be at higher risk for psychopathology (Teplin et al., 2006) and who may have more pronounced psychopathic characteristics (Forth et al., 2003). Also, in the midst of the robust associations between shame and psychopathology observed in this study and numerous others (Tangney et al., 2007), questions arise concerning the nature and mechanisms

of these associations. Further research should test moderation and mediational models in order to gain a clearer picture of the nature of these relationships. Further, given the negative association between guilt and anger problems, studies are also needed to elucidate the mechanisms of this relationship. Examining relationships between guilt and other positive characteristics such as resiliency (e.g., Search Institute, 2004) and protective factors (e.g., Borum et al., 2006) may assist in answering these questions.

Finally, research should address the efficacy and effectiveness of interventions targeted at shame and guilt. Existing literature suggests that treatments such as DBT (Linehan, 1993) and restorative justice (e.g., Braithwaite, 2002) may be relevant. However, given the importance of shame and guilt as suggested by a burgeoning body of research (including the present study), there is a clear need for the development of evidence-based procedures for ameliorating the harmful effects of shame while maximizing the helpful effects of guilt.

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Table 1

Participant Characteristics

	N	%	M	SD
Age (years)	97	100.00	15.88	1.15
Gender				
Male	68	70.10		
Female	29	29.90		
Ethnicity				
Caucasian	53	54.64		
Aboriginal	18	18.56		
Mixed/Other	26	26.80		
# of Index Charges			2.69	3.39
# of Index Convictions			1.99	1.66
Type of Index Charges				
Nonsexual Violence	59	60.2		
Sexual Violence	3	3.1		
Property Offence	31	31.6		
Drug Offense	4	4.1		
Other	31	31.6		
# of Previous Charges			5.42	5.96
# of Previous Convictions			3.15	3.01

Table 2

Means, Standard Deviations, Minimums, Maximums, and Ranges for TOSCA-A, ORSGS, ICU, PCL:YV, and MAYSI-2 Scores

	Mean	SD	Minimum	Maximum	Range
TOSCA-A Shame (*n* = 97)	35.11	8.69	15	53	38
TOSCA-A Guilt (*n* = 97)	49.50	11.65	15	71	56
ORSGS Shame (*n* = 58)	24.17	8.70	8	50	42
ORSGS Guilt (*n* = 58)	31.19	7.13	15	47	32
ICU (*n* = 56)	31.03	7.64	17	48	31
PCL:YV (*n* = 97)	20	6.22	11	29	18
MAYSI-2 Subscales (*n* = 97)					
Alcohol/Drug Use	2.89	2.68	0	8	8
Angry-Irritable	3.53	2.80	0	9	9
Depressed/Anxious	1.59	1.76	0	7	7
Somatic Complaints	2.64	1.85	0	6	6
Suicide Ideation	.43	1.09	0	5	5
Thought Disturbance (boys only)	.40	.71	0	3	3
Traumatic Experiences	2.04	1.57	0	5	5

Note. Higher scores indicate greater shame, guilt, psychopathic characteristics, and mental health difficulties.

Table 3

Correlations among TOSCA-A and ORSGS Scores

	TOSCA-A Shame ($n = 97$)	TOSCA-A Guilt ($n = 97$)	ORSGS Shame ($n = 58$)	ORSGS Guilt ($n = 58$)
TOSCA-A Shame	-	.57**	.13	.20
TOSCA-A Guilt		-	-.06	.32*
ORSGS Shame			-	.45**
ORSGS Guilt				-

Note. ** = $p < .01$; * = $p < .05$.

Table 4

Bivariate Correlations between TOSCA-A, ORSGS, and MAYSI-2 Scales

	Guilt and Shame Scales			
	TOSCA-A Shame (*n* = 97)	TOSCA-A Guilt (*n* = 97)	ORSGS Shame (*n* = 58)	ORSGS Guilt (*n* = 58)
MAYSI-2 Scale (*n* = 97)				
Alcohol/Drug	-.04	-.13	.06	-.24
Angry/Irritable	.14	-.21*	.02	-.35*
Depressed/Anxious	.32**	-.09	.29*	-.14
Somatic Complaints	.28*	.18	-.01	.10
Suicide Ideation	.28**	.04	.04	-.06
Thought Disturbance	.33**	.02	-.25	-.21
Traumatic Experiences	.04	-.11	-.10	-.14

Note. * = *p* < .05; ** = *p* < .01.

Table 5

Partial Correlations between TOSCA-A, ORSGS, and MAYSI-2 Scales

	Guilt and Shame Scales			
	TOSCA-A Shame[a] (*n* = 97)	TOSCA-A Guilt[b] (*n* = 97)	ORSGS Shame[c] (*n* = 58)	ORSGS Guilt[d] (*n* = 58)
MAYSI-2 Scale (*n* = 97)				
Alcohol/Drug	.17	-.25*	.11	-.29
Angry/Irritable	.44**	-.45**	.21	-.41*
Depressed/Anxious	.50**	-.39**	.43**	-.39*
Somatic Complaints	.34**	-.04	-.10	.11
Suicide Ideation	.43**	-.16	.24	-.12
Thought Disturbance	.40**	-.23	-.18	-.14
Traumatic Experiences	.21	-.31**	-.00	-.17

[a] Controlling for TOSCA-A Guilt.
[b] Controlling for TOSCA-A Shame.
[c] Controlling for ORSGS Guilt.
[d] Controlling for ORSGS Shame.
Note. $* = p < .05$; $** = p < .01$.

Table 6

Linear Regressions for TOSCA-A, ORSGS, and MAYSI-2 Scales

Relationship	Step 1: Control Variable		Step 2: TOSCA-A/ORSGS Scale			
	β	R^2	b	SE b	β	ΔR^2
TOSCA-A Guilt[a]						
MAYSI-2 Drug/Alcohol	-.01	.01	-.04	.03	-.17	.02
MAYSI-2 Angry/Irritable	.05	.02	-.10	.03	-.43**	.13**
MAYSI-2 Depressed/Anxious	.07**	.10**	-.06	.02	-.41**	.11**
MAYSI-2 Traumatic Experiences	.01	.00	.03	.02	-.20	.03
TOSCA-A Shame[b]						
MAYSI-2 Angry/Irritable	-.21*	.04*	.12	.04	.39**	.10**
MAYSI-2 Depressed/Anxious	-.09	.01	.11	.02	.55**	.21**
MAYSI-2 Somatic Complaints	.18	.03	.06	.03	.27*	.05*
MAYSI-2 Suicide Ideation	.00	.00	.05	.01	.38**	.10**
MAYSI-2 Thought Disturbance	-.02	.00	.04	.01	.50**	.16**
ORSGS Guilt[c]						
MAYSI-2 Angry/Irritable	.01	.00	-.16	.05	-.46**	.17**
MAYSI-2 Depressed/Anxious	.06*	.09*	-.08	.03	-.36*	.10**
ORSGS Shame[d]						
MAYSI-2 Depressed/Anxious	-.03	.02	.09	.03	.47**	.18**

[a] Controlling for TOSCA-A Shame
[b] Controlling for TOSCA-A Guilt.
[c] Controlling for ORSGS Shame.
[d] Controlling for ORSGS Guilt.
Note. * = $p < .05$; ** = $p < .01$.

Table 7

Bivariate Correlations between TOSCA-A, ORSGS, and PCL:YV Scores

	Guilt and Shame Scales			
	TOSCA-A Shame (*n* = 97)	TOSCA-A Guilt (*n* = 97)	ORSGS Shame (*n* = 58)	ORSGS Guilt (*n* = 58)
Psychopathy/CU Traits Scales (*n* = 97)				
PCL:YV Interpersonal	-.11	-.27**	-.11	-.22
PCL:YV Affective	-.16	-.27**	-.08	-.41**
PCL:YV Behavioural	-.00	-.31**	.06	-.23
PCL:YV Antisocial	-.16	-.33**	.13	-.02
PCL:YV Total	-.13	-.38**	-.15	-.42

Note. $* = p < .05$; $** = p < .01$.

Table 8

Partial Correlations between TOSCA-A, ORSGS, and PCL:YV Scores

| | Guilt and Shame Scales | | | |
	TOSCA-A Shame[a] (*n* = 97)	TOSCA-A Guilt[b] (*n* = 97)	ORSGS Shame[c] (*n* = 58)	ORSGS Guilt[d] (*n* = 58)
Psychopathy/CU Traits Scales (*n* = 97)				
PCL:YV Interpersonal	.05	-.25**	-.01	-.20
PCL:YV Affective	-.01	-.22*	.14	-.42**
PCL:YV Behavioural	.23*	-.37**	.22	-.29*
PCL:YV Antisocial	.03	-.29**	.19	-.10
PCL:YV Total	.11	-.37**	.24	-.35**

[a] Controlling for TOSCA-A Guilt.
[b] Controlling for TOSCA-A Shame.
[c] Controlling for ORSGS Guilt.
[d] Controlling for ORSGS Shame.
Note. * = *p* < .05; ** = *p* < .01.

Table 9

Linear Regressions for TOSCA-A, ORSGS, and PCL:YV Scales

| Relationship | Step 1: Control Variable | | Step 2: TOSCA-A/ORSGS Scale | | | |
	β	R^2	b	SE b	β	ΔR^2
TOSCA-A Guilt[a]						
PCL:YV Interpersonal	-.11	.01	-.05	.02	-.31*	.06*
PCL:YV Affective	-.16	.03	-.05	.02	-.26*	.05*
PCL:YV Behavioural	.00	.00	-.09	.02	-.45**	.14**
PCL:YV Antisocial	-.16	.02	-.08	.03	-.35**	.09*
PCL:YV Total	-.13	.02	-.29	.08	-.45**	.14**
TOSCA-A Shame[b]						
PCL:YV Behavioural	-.31**	.09**	.07	.03	.26*	.05*
ORSGS Guilt[c]						
PCL:YV Affective	-.08	.01	-.12	.04	-.48**	.18**
PCL:YV Behavioural	.08	.01	-.10	.04	-.33*	.09*
PCL:YV Total	.08	.01	-.36	.14	-.39*	.12*

[a] Controlling for TOSCA-A Shame.
[b] Controlling for TOSCA-A Guilt.
[c] Controlling for ORSGS Shame.
Note. * = $p < .05$; ** = $p < .01$.

Table 10

Linear Regressions after Controlling for Offence History: MAYSI-2 Scales

| | Step 1: Control Variables | | | Step 2: TOSCA-A/ORSGS Scale | | | |
| | Guilt/Shame | Offence History | | | | | |
Relationship	β	β	R^2 (Total Step 1)	b	SE b	β	ΔR^2
TOSCA-A Guilt[a]							
MAYSI-2 Angry/Irritable	.15	.03	.02	-.10	.03	-.43**	.12**
MAYSI-2 Depressed/Anxious	.33**	.03	.10**	-.06	.02	-.40**	.11**
TOSCA-A Shame[b]							
MAYSI-2 Angry/Irritable	-.20	.00	.02	.12	.04	.39**	.10**
MAYSI-2 Depressed/Anxious	-.08	.02	.01	.11	.02	.55**	.21**
MAYSI-2 Somatic Complaints	.18	-.11	.03	.06	.03	.27*	.05*
MAYSI-2 Suicide Ideation	.04	-.12	.02	.05	.02	.39*	.10*
MAYSI-2 Thought Disturbance	.03	-.04	.00	.04	.01	.52**	.17**
ORSGS Guilt[c]							
MAYSI-2 Angry/Irritable	.05	-.10	.01	-.16	.05	-.46**	.16**
MAYSI-2 Depressed/Anxious	.32*	-.08	.10	-.08	.03	-.35*	.10*
ORSGS Shame[d]							
MAYSI-2 Depressed/Anxious	-.13	-.02	.02	.09	.03	.49**	.18**

[a] Controlling for TOSCA-A Shame.
[b] Controlling for TOSCA-A Guilt.
[c] Controlling for ORSGS Shame.
[d] Controlling for ORSGS Guilt.
Note. * = p < .05; ** = p < .01.

Table 11

Linear Regressions after Controlling for Offence History: PCL:YV Scales

| Relationship | Step 1: Control Variables | | | Step 2: TOSCA-A/ORSGS Scale | | | |
| | Guilt/Shame | Offence History | | | | | |
	β	β	R^2 (Total Step 1)	b	SE b	β	ΔR^2
TOSCA-A Guilt[a]							
PCL:YV Interpersonal	-.11	.27**	.09*	-.04	.02	-.25*	.04*
PCL:YV Behavioural	.00	.43**	.19**	-.07	.02	-.37**	.09**
PCL:YV Antisocial	-.16	.48**	.29**	-.06	.03	-.25*	.04*
PCL:YV Total[b]	-.14	.55**	.32**	-.21	.06	-.35**	.08**
TOSCA-A Shame[c]							
PCL:YV Behavioural	-.24**	.40**	.24**	.06	.03	.22*	.03*
ORSGS Guilt[d]							
PCL:YV Affective[b]	-.12	.36**	.13*	-.08	.03	-.42**	.14**
PCL:YV Behavioural	.01	.43**	.19**	-.09	.04	-.31*	.08*
PCL:YV Total[b]	-.01	.52**	.27**	-.29	.11	-.34*	.09*

[a] Controlling for TOSCA-A Shame.
[b] PCL:YV "Lack of Remorse" item removed.
[c] Controlling for TOSCA-A Guilt.
[d] Controlling for ORSGS Shame.
Note. $* = p < .05$; $** = p < .01$.