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## DIMENSIONS OF PSYCHOPATHY IN RELATION TO SUICIDAL AND SELF-INJURIOUS BEHAVIOR

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### Abstract

Externalizing psychopathology is associated with an increased risk for suicidal behavior. Within the externalizing domain, psychopathy may be an important construct for the understanding of which individuals are at particularly high risk. However, prior studies of psychopathy and suicidal behavior have not distinguished between suicide attempts and nonsuicidal self-injurious behavior (NSIB). The present study used data on 810 civil psychiatric patients from the MacArthur Violence Risk Assessment Project to examine the relationships between scores on the four dimensions of the Psychopathy Checklist: Screening Version (PCL: SV) and suicide attempts and nonsuicidal self-injurious behavior (NSIB). Results indicate that only the antisocial dimension of psychopathy is associated with suicide attempts. With regard to NSIB, an interaction was found such that, among African-Americans, NSIB was more prevalent at higher levels of antisociality. Present findings refine previous results from studies using the two-factor PCL:SV model and have important implications for the assessment of suicide risk.

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Externalizing psychopathology (e.g., antisocial personality, substance dependence) has been linked with increased risk for suicidal behavior in community, psychiatric, and forensic populations (Conner et al., 2001; Verona, Patrick, & Joiner, 2001). A next step is to determine which aspects of externalization are most salient to risk because such data can improve risk recognition and inform interventions. To illustrate, decades of research have demonstrated key roles of hopelessness (Beck, Steer, Kovacs, & Garrison, 1985) and depression in suicidal behavior that have informed the development and testing of interventions addressing suicide risk that target these difficulties (Brown et al., 2005; Bruce et al., 2004). However, in the externalizing domain, the equivalents of hopelessness and depression have yet to be identified, and overall there has been slow progress in determining which aspects of externalization promote longer-term risk for adverse outcomes. In order to design prevention and intervention strategies for individuals prone to externalization and suicidal behavior, more and better data on specific risk-promoting aspects of externalization are needed.

Psychopathy is an externalizing construct that is characterized by callousness, a diminished capacity for remorse, impulsive behavior, and superficial charm (Cleckley, 1976). A wealth of data using forensic populations shows that psychopathy is related to frequency of violence and violent recidivism (Hare, 2003). In recent years there has been increased attention to psychopathy in nonforensic settings where it has also been shown to be relevant to violence (Skeem & Mulvey, 2001), supporting the importance of this construct outside of forensic venues. Early conceptualizations of psychopathy posited an inverse relationship

between psychopathy and suicide (Cleckley, 1976). However, until recently, no relevant empirical data were available.

Psychopathy is commonly assessed with the Hare Psychopathy Checklist-Revised (PCL-R; Hare, 2003) or the Psychopathy Checklist: Screening Version (PCL:SV; Hart, Cox, & Hare, 1995). Of the different structural models that underlie PCL-R and PCL:SV scores, the two-factor model (Harpur, Hare, & Hakstian, 1989) has dominated the literature. In this model, Factor 1 (F1) consists of items related to a callous and remorseless disregard of the rights and feelings of others, whereas Factor 2 (F2) items are related to a chronically unstable and antisocial lifestyle (Hare, 2003). To our knowledge, only three published studies have addressed the relationship between the two factors of psychopathy and suicidal behavior or thoughts.

Verona et al. (2001) assessed male prison inmates, and determined the presence versus absence of a prior suicide attempt using a structured interview and prison file review. Results indicated that a suicide attempt history was significantly related to PCL-R F2, but was unrelated to F1. Findings were consistent with prior research linking suicide attempts to antisocial behavior, but did not support Cleckley's assertion that psychopathy is negatively associated with suicidal behavior. Verona, Hicks, and Patrick (2005) conducted a similar study with female prison inmates. Replicating the previous findings, F2 was positively related to a history of a suicide attempt. Corroborating the authors' hypothesis that suicidal behavior is positively related to social deviance but not core psychopathic traits, and consistent with Cleckley's (1976) assertion that psychopaths are relatively immune to suicidal behavior, F1 exhibited a significant negative relationship with attempt history. In a multi-site, multi-sample investigation including both males and females, Douglas, Herbozo, Poythress, Belfrage, and Edens (2006) examined the relationship of psychopathy to suicide ideation and attempts. Multiple measures of both psychopathy and suicidal thoughts and behavior were used across twelve independent samples. Combining the samples to obtain a grand mean correlation, the significant relationship between F2-related traits and suicidal behavior was replicated again. No combined effect was found for F1-related traits on suicidal thoughts or behavior, though there was wide variability in findings across samples and measurement methods. This latter study offered the most comprehensive data to date on the relationship between psychopathy and suicidal thoughts and behavior, and the authors concluded that individuals with considerable behavioral and/or antisocial features of psychopathy are likely to have a slightly elevated risk for suicidal ideation or behavior. They asserted that the presence of the core features of psychopathy should not lead to dismissal of the possibility of suicide risk.

Although the above findings offer some consistency, the data thus far regarding PCL-assessed psychopathy and suicidal behavior have primarily been based upon assessments that have not taken into account the important distinction between nonsuicidal self-injurious behavior (NSIB; a concept that also has been referred to as *suicide gesture* and *self-harm*; Nock & Kessler, 2006; Silverman, Berman, Sanddal, O'Carroll, & Joiner, 2007), and suicide attempts that, by definition, are accompanied by at least some intent to die. One exception (Hill, Rogers, & Bickford, 1996) was a study that found no relationship between PCL:SV total scores and either suicide attempts or NSIB in a sample of 55 forensic psychiatric patients. However, conclusions that can be drawn from this study are limited by a lack of power. Because of the failure to distinguish between suicide attempts and NSIB in the major studies of psychopathy and suicide, it cannot be ruled out that the failure of these studies to find a consistent inverse relationship between F1 traits and suicide attempts is entirely due to the inclusion of NSIB along with suicide attempts in the dependent variable. Indeed, Cleckley (1976), writing about psychopaths' parasuicidal behavior, indicated that "many

bogus attempts are made, sometimes with remarkable cleverness, premeditation, and histrionics” (p. 359).

Another limitation of available data is the exclusive use of the two-factor model of psychopathy despite recent studies that support the alternative validity of a four-factor solution. Specifically, the two higher-order dimensions are each comprised of two correlated facets (Hare, 2003), with Factor One (F1) comprised of distinct interpersonal and affective facets, and Factor Two (F2) comprised of lifestyle and antisocial facets. In this model, the interpersonal facet consists of items related to arrogance and a deceitful and manipulative interpersonal style. The affective facet assesses a deficiency of affective experience, including a lack of empathy and emotional depth. The lifestyle facet is comprised of items that assess a tendency toward impulsivity and irresponsibility. The antisocial facet consists of items related to juvenile and adult antisocial behavior. The four-facet model shows good fit with both the PCL-R (Hare, 2003) and the PCL:SV (Guy & Douglas, 2006; Hill, Neumann, & Rogers, 2004), and permits a more fine-grained examination of the relationships between criteria and specific dimensions underlying psychopathy. Moreover, the facets appear to display distinct relationships to important criteria (Swogger, Walsh, & Kosson, 2007; Vitacco, Neumann, & Jackson, 2005).

The primary aim of the present study was to examine the relationship between psychopathy and suicide attempts in a civil psychiatric population. In so doing, we addressed a limitation of prior studies by distinguishing suicide attempts and NSIB. Additionally, we incorporated the four-facet model of the PCL:SV. Based on prior findings of an inverse relationship between F1 and suicide attempts (Verona et al., 2005) and the possibility that deficient emotional experience might protect one from emotional states commonly associated with suicide, we hypothesized that the affective PCL:SV facet would be significantly negatively associated with history of a suicide attempt. Based upon prior findings that link antisocial behavior to suicidal behavior (Verona, Sachs-Erickson, & Joiner, 2004), we hypothesized a significant positive relationship between the antisocial facet and history of a suicide attempt. In light of the paucity of data on psychopathy and NSIB, we did not have specific hypotheses pertaining to NSIB.

## METHOD

### PARTICIPANTS

Participants were 1,136 civil psychiatric patients between the ages of 18–40 ( $M = 30.3$ ,  $SD = 6.1$ ) who were sampled from one of three acute inpatient hospitals as part of the MacArthur Violence Risk Assessment Study (see Silver, Mulvey, & Monahan, 1999, for a detailed description of this study). Additional inclusion criteria included, (a) civil admission, (b) English speaking, and (c) a diagnosis, based on medical records, of schizophrenia, schizophreniform disorder, schizoaffective disorder, dysthymia, depression, mania, brief reactive psychosis, delusional disorder, alcohol or other drug abuse or dependence, or a personality disorder. Researchers approached eligible patients to request informed consent an average of 4.5 days after hospital admission. Otherwise eligible patients were excluded if they had been hospitalized for 20 or more days prior to being approached (Skeem & Mulvey, 2001). Of those approached, 71% agreed to participate. Participants were administered a baseline interview in the hospital and follow-up interviews in the community at approximately 10-week intervals.

For the present study, we have incorporated data from the baseline interview and two follow-up interviews. After excluding data from participants who were not administered both the Hare Psychopathy Checklist: Screening Version (PCL:SV) and baseline measures of suicide attempts or NSIB, we were left with 475 male and 335 female ( $n = 810$ ) for

analysis. This sample was comprised of individuals with independently determined baseline diagnoses of depression (41%), schizophrenia or schizoaffective disorder (17%), bipolar disorder (11%), substance use disorder (23%), personality disorder (2%), or other disorder (6%). The ethnic distribution for the current study was 568 European Americans and 242 African-Americans.<sup>1</sup>

## MEASURES

**Psychopathy**—Psychopathy was assessed by trained raters using the PCL:SV, based on a semi-structured interview, supplemented by a review of file information. The PCL:SV was administered to all available participants during the first or second follow-up sessions. Forty-five interviews were taped and rated by each of nine interviewers in order to assess inter-rater reliability. Combined inter-rater reliability rates were good ( $\kappa = 0.66$ ), and PCL:SV internal consistency was acceptable ( $\alpha = .87$ ), according to Skeem and Mulvey (2001). The sample mean total PCL:SV score was 8.6 ( $SD = 5.6$ ). Mean scores on the PCL:SV facets were as follows: interpersonal = 1.4 ( $SD = 1.6$ ), affective = 1.7 ( $SD = 1.7$ ), lifestyle = 2.9 ( $SD = 1.9$ ), antisocial = 2.4 ( $SD = 1.8$ ).

**Suicide Attempt and NSIB**—Three questions were used to assess history of deliberate, self-injurious behavior and level of intent to die associated with the act. At baseline, participants were asked whether they had thought of hurting themselves in the past two months. Those who answered affirmatively were asked whether they had attempted to hurt themselves during the past two months. Individuals who reported yes were asked about the degree of harm that they sought to inflict. For purposes of analysis, participants were divided into three groups: (1) *non-attempt*, (2) *NSIB*, defined as individuals who endorsed a self-directed act that was accompanied by the intention to inflict harm on themselves but with no intent to die, and (3) *suicide attempt*, defined as individuals who reported an act that was accompanied by at least some intent to die. The same procedure was followed for subsequent interviews, except that participants were asked to report self-injurious behavior since the last interview. Thus, our categorization of NSIB and suicide attempts was based on participants' subjective ratings of intent. In order to validate these categories, we compared these groups on the objective circumstances of the self-injurious act by summing five items from the planning scale of the Suicide Intent Scale (SIS; Beck, Schuyler, & Herman, 1974) that were available in the dataset. The NSIB group had significantly lower scores than suicide attempters,  $t(110.93) = 2.14, p < .05, d = .32$ , indicating less planning of the act, supporting the categorization. At baseline, 20% ( $n = 161$ ) of participants reported suicide attempts; this number decreased to 5% and 4% for the first and second follow-up interviews, respectively. Seven percent ( $n = 55$ ) of participants reported NSIB at baseline; this percentage decreased to 5% and 3%, respectively, at the two follow-up interviews.

## STATISTICAL ANALYSES

Relationships between psychopathy facets and history of recent suicidal behavior (none, suicidal gestures, and suicidal attempts) were explored. Each was assessed up to three times in two month intervals (2,200 observations total.) We examined the crude relationships between suicidal behavior, psychopathy, and patient characteristics (age, gender, and race) by time interval using chi square statistics for categorical variables and Mann-Whitney-Wilcoxon tests and *F*-tests for continuous variables. Results of cross-sectional multinomial logistic regression models are presented. We used generalized estimating equations (using robust sandwich estimators of variance and an independent working correlation structure) to adjust the estimated standard errors obtained from the regression models for the clustering of

<sup>1</sup>Because of meager validity data on the PCL:SV among individuals of Hispanic origin, and the small sample of Hispanic patients ( $n = 18$ ), these individuals were excluded from analyses.

observations within subjects. The final model was constructed deliberately; treating time interval, age, gender, and race as potential confounders and testing for significant interactions between all covariates. We confirmed that the results of the robust model including all three waves of data were similar to those that we saw when each of the waves was modeled individually. Each of the multivariate models was examined for collinearity and heteroskedasticity.

## RESULTS

Table 1 shows the unadjusted relationships of age, gender, race, and psychopathy facets with NSIB and suicide attempt. Age was negatively associated with NSIB and suicide attempt. Female gender was associated with NSIB and suicide attempt, and European American race was also associated with NSIB and suicide attempt. With regard to psychopathy components, only the antisocial facet was associated with suicide attempt. No psychopathy facet was associated with NSIB.

Table 2 presents the full models, which examine the relationship of psychopathy facets to NSIB and suicide attempt. Results indicate that the antisocial facet remained significantly associated with suicide attempt after controlling for age, gender, and race. In the model examining psychopathy and NSIB, there was an ethnicity by antisocial facet interaction (see Figure 1), such that, among African-Americans, the relationship between antisociality and NSIB was significantly higher among individuals with higher antisocial facet scores, after controlling for age and gender.

## DISCUSSION

This study was designed to examine the relationship of psychopathy and psychopathic traits with suicide attempts and NSIB. Improving upon prior studies of psychopathy and suicide, we distinguished between individuals who made suicide attempts versus those who committed self-injurious acts but reported no intent to die. Consistent with our hypothesis, findings provided evidence that antisocial features of psychopathy (i.e., poor behavioral controls, adolescent and adult antisocial behavior) are associated with suicide attempts. The link between antisocial behavior and suicide attempts is also consistent with prior research that indicates an elevated risk for suicide among prisoners (Pratt, Piper, Appleby, Webb, & Shaw, 2006), and suggests that clinicians working with persons who display considerable antisocial behavior in other settings should be alert to the potential for suicide attempts. Additionally, previous findings indicated that F2 of the psychopathy checklist two-factor model and suicide attempts are positively related. Based upon our refined analysis, it may be the antisocial component of F2, rather than an impulsive and irresponsible lifestyle, which is related to suicide attempts. Also, contrary to our hypothesis, affective features of psychopathy were not negatively associated with suicide attempts, consistent with some prior reports (Douglas et al., 2006; Verona et al., 2001).

Results also indicate that high antisocial facet scores are associated with elevated risk for NSIB among African Americans but not European Americans. This finding has potentially important implications for the assessment of risk for NSIB. However, the reasons for the finding are not clear. In general, data suggest that suicidal behavior is less acceptable to African Americans (Neeleman, Wessely, & Lewis, 1998). One possibility is that, among African American patients with heightened antisociality, it may be viewed as a sign of weakness to be suicidal; thus they minimized the reported intent of NSIB. Another possibility is that, in light of well-documented racial disparities in accessing and receiving equitable psychiatric services (Institute of Medicine, 2002), African American patients with heightened antisociality are more likely than their European American counterparts to use



gestures in order to access or receive services because the latter do not face the same level of difficulty in obtaining care. These speculative post-hoc hypotheses are offered tentatively to stimulate further inquiry.

Limitations of the present study should be noted. First, data on self-injurious behaviors and intent were based on self-report. Although this enabled us to determine likely suicide attempts, the lack of additional data on suicidal behavior may have differentially affected results among individuals with higher levels of psychopathy due to a greater proneness for dishonesty. Moreover, we used a small number of items to assess suicidal behavior. Future studies might address these limitations by obtaining hospital records or other file data to augment a more extensive self-report assessment. Additionally, the present study is of treated psychiatric patients, and so caution is warranted in generalizing results to other populations. It should also be noted that individuals included in our analysis were less likely to have a documented history of violence than those who were lost to follow-up (Steadman et al., 1998), further suggesting the importance of caution in generalization of present findings. Important strengths of the study include the large sample, availability of detailed data on psychopathy, the important distinction of NSIB and suicide attempt, and substantial representation of African Americans.

In summary, results of this study are consistent with prior studies in suggesting the importance of assessing antisocial features when considering suicide risk. They also support Douglas et al.'s (2006) assertion that the presence of affective features of psychopathy should not lead clinicians to assume decreased risk for suicidal behavior. Results also suggest that antisocial features of psychopathy are disproportionately associated with NSIB among African Americans, although this finding is considered preliminary and requires replication.

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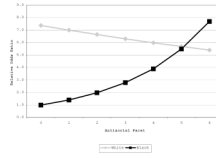
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## REFERENCES

- Beck, AT.; Schuyler, D.; Herman, I. Development of the suicidal intent scales. In: Beck; Resnick; Lettieri, editors. *The prediction of suicide*. Bowie, MD: Charles Press; 1974.
- Beck AT, Steer R, Kovacs M, Garrison B. Hopelessness and eventual suicide: A 10-year prospective study of patients hospitalized with suicidal ideation. *American Journal of Psychiatry*. 1985; 142:559–563. [PubMed: 3985195]
- Brown GK, Ten Have TR, Henriques GR, Xie SX, Hollander JE, Beck AT. Cognitive therapy for the prevention of suicide attempts: A randomized controlled trial. *Journal of the American Medical Association*. 2005; 294:563–570. [PubMed: 16077050]
- Bruce ML, Ten Have TR, Reynolds CF, Katz II, Schulberg HC, Mulsant BH, et al. Reducing suicidal ideation and depressive symptoms in older primary care patients: A randomized controlled trial. *Journal of the American Medical Association*. 2004; 291:1081–1091. [PubMed: 14996777]
- Cavanagh JTO, Carson AJ, Sharpe M, Lawrie SM. Psychological autopsy studies of suicide: A systematic review. *Psychological Medicine*. 2003; 33:395–405. [PubMed: 12701661]
- Conner KR, Cox C, Duberstein PR, Tian L, Nisbet PA, Conwell Y. Violence, alcohol, and completed suicide: A case-control study. *American Journal of Psychiatry*. 2001; 158:1701–1705. [PubMed: 11579005]
- Cleckley, H. *The mask of sanity*. 5th ed.. St. Louis: Mosby; 1976.

- Douglas KS, Herbozo S, Poythress NG, Belfrage H, Edens JF. Psychopathy and suicide: A multisample investigation. *Psychological Services*. 2006; 3:97–116.
- Guy LS, Douglas KS. Examining the utility of the PCL:SV as a screening measure using competing factor models of psychopathy. *Psychological Assessment*. 2006; 18:225–230. [PubMed: 16768600]
- Hare, RD. Hare psychopathy check-list-revised (PCL-R). 2nd ed.. Toronto, ON, Canada: Multi-Health Systems; 2003.
- Harper TJ, Hare RD, Hakstian AR. Two-factor conceptualization of psychopathy: Construct validity and assessment implications. *Journal of Consulting and Clinical Psychology*. 1989; 1:6–17.
- Hart, S.; Cox, D.; Hare, RD. Manual for the psychopathy checklist-screening version (PCL:SV). Toronto, ON, Canada: Multi-Health Systems; 1995.
- Hill CD, Neumann CS, Rogers R. Confirmatory factor analysis of the psychopathy checklist: Screening version in offenders with axis I disorders. *Psychological Assessment*. 2004; 16:90–95. [PubMed: 15023097]
- Hill CD, Rogers R, Bickford ME. Predicting aggressive and socially disruptive behavior in a maximum security forensic psychiatric hospital. *Journal of the Forensic Sciences*. 1996; 41:56–59.
- Institute of Medicine. Unequal treatment: Confronting racial and ethnic disparities in health care. Washington, DC: Author; 2002.
- Nock MK, Kessler RC. Prevalence of and risk factors for suicide attempts versus suicide gestures: Analysis of the national comorbidity survey. *Journal of Abnormal Psychology*. 2006; 115:616–623. [PubMed: 16866602]
- Neeleman J, Wessely S, Lewis G. Suicide acceptability in African and white Americans: The role of religion. *Journal of Nervous and Mental Disease*. 1998; 186:12–16. [PubMed: 9457142]
- Pratt D, Piper M, Appleby L, Webb R, Shaw J. Suicide in recently released prisoners: A population-based cohort study. *Lancet*. 2006; 368:119–123. [PubMed: 16829295]
- Silver E, Mulvey E, Monahan J. Assessing violence risk among discharged psychiatric patients: Toward an ecological approach. *Law and Human Behavior*. 1999; 23:235–253.
- Silverman MM, Berman AL, Sanddal ND, O'Carroll PW, Joiner TE. Rebuilding the Tower of Babel: A revised nomenclature for the study of suicide and suicidal behaviors part 2: Suicide-related ideations, communications, and behaviors. *Suicide and Life-Threatening Behavior*. 2007; 37:264–277. [PubMed: 17579539]
- Skeem JL, Mulvey EP. Psychopathy and community violence among civil psychiatric patients: Results from the MacArthur violence risk assessment study. *Journal of Consulting and Clinical Psychology*. 2001; 69:358–374. [PubMed: 11495166]
- Steadman HJ, Mulvey EP, Monahan J, Robbins PC, Appelbaum PS, Grisso T, Roth LH, Silver E. Violence by people discharged from acute psychiatric inpatient facilities and by others in the same neighborhoods. *Archives of General Psychiatry*. 1998; 55:393–401. [PubMed: 9596041]
- Swogger MT, Walsh Z, Kosson DS. Domestic violence and psychopathic traits: Distinguishing the antisocial batterer from other antisocial offenders. *Aggressive Behavior*. 2007; 33:253–260. [PubMed: 17444531]
- Verona E, Patrick CJ, Joiner TE. Psychopathy, antisocial personality, and suicide risk. *Journal of Abnormal Psychology*. 2001; 110:462–470. [PubMed: 11502089]
- Verona E, Hicks BM, Patrick CJ. Psychopathy and suicidality in female offenders: Mediating influences of personality and abuse. *Journal of Consulting and Clinical Psychology*. 2005; 73:1065–1073. [PubMed: 16392980]
- Verona E, Sachs-Erickson N, Joiner T. Analysis of suicide attempts and externalizing psychopathology in an epidemiological sample. *American Journal of Psychiatry*. 2004; 161:444–451. [PubMed: 14992969]
- Vitacco MJ, Neumann CS, Jackson R. Development of a four-factor model of psychopathy: Associations with ethnicity, gender, violence, & intelligence. *Journal of Consulting and Clinical Psychology*. 2005; 73:466–476. [PubMed: 15982144]



**FIGURE 1.**  
Interaction between antisocial facet scores and ethnicity associated with NSIB.



**TABLE 1**  
Results of Unadjusted Generalized Estimating Equations Comparing NSIB and Suicide Attempt Groups to Nonattempters

Predictor	NSIB				Suicide Attempt			
	Z	OR	95% CI	Sig.	Z	OR	95% CI	Sig.
Age	-1.98	.96	0.92-1.00	.05	-2.43	0.97	0.95-0.99	.02
Gender	4.90	3.19	2.01-5.08	<.01	2.02	1.35	1.01-1.80	.04
Ethnicity	3.26	2.53	1.45-4.43	<.01	2.50	1.54	1.10-2.17	.01
Interpersonal	-1.59	0.89	0.77-1.03	.11	1.36	1.07	0.97-1.17	.17
Affective	-0.81	0.94	0.82-1.09	.42	1.86	1.08	1.00-1.18	.06
Lifestyle	-1.11	0.93	0.83-1.05	.27	1.34	1.05	0.98-1.14	.18
Antisocial	-0.96	0.94	0.84-1.06	.34	3.24	1.15	1.06-1.25	<.01

*Note.* Gender reference group = female, Ethnicity reference group = white, Interpersonal, affective, lifestyle, and antisocial refer to the four facets of the PCL-R.

**TABLE 2**

Results of Generalized Estimating Equations Comparing NSIB and Suicide Attempt Groups to Nonattempters After Adjusting for Age, Gender, and Ethnicity

Predictor	<i>z</i>	<i>OR</i>	95% CI	Sig.
NSIB				
Age	-1.96	.96	0.92– 1.00	.05
Gender	4.99	3.27	2.05– 5.22	<.01
Ethnicity	4.17	7.37	2.88–18.85	<.01
Interpersonal	-0.99	0.90	0.75– 1.10	.32
Affective	0.30	1.03	0.84– 1.27	.77
Lifestyle	-0.09	1.01	0.87– 1.16	.93
Antisocial	3.13	1.40	1.14– 1.73	<.01
Ethnicity × Antisocial	-3.16	0.68	0.53– 0.86	<.01
Suicide Attempt				
Age	-1.99	.98	0.95– 1.00	.05
Gender	2.90	1.60	1.16– 2.19	<.01
Ethnicity	2.79	1.69	1.17– 2.46	<.01
Interpersonal	0.13	1.01	0.88– 1.15	.90
Affective	0.48	1.03	0.90– 1.19	.63
Lifestyle	-0.46	0.97	0.88– 1.09	.64
Antisocial	3.08	1.18	1.06– 1.40	<.01

*Note.* Gender reference group = female. Ethnicity reference group = whites. Interpersonal, affective, lifestyle, antisocial refer to the four facets of the PCL-R