

Personality Traits and Drinking Motives Predict Alcohol Misuse Among Canadian Aboriginal Youth

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Abstract This study tested the association between personality traits (i.e., anxiety sensitivity, sensation seeking, impulsivity, and hopelessness; as measured by the Substance Use Risk Profile Scale (Woicik et al. in *Addictive Behaviors* 34:1042–1055, 2009)), drinking motives (i.e., enhancement, social, coping, and conformity; as measured by the Drinking Motives Questionnaire—Revised (Cooper in *Psychological Assessment* 6:117–128, 1994)), and problematic patterns of alcohol use in 191 Canadian Aboriginal youth. Confirmatory factor analyses provided support for a three-factor model of drinking motives. Hierarchical regression analyses demonstrated that personality traits independently predicted motives for alcohol use: anxiety sensitivity predicted conformity motivated drinking; sensation seeking and impulsivity predicted enhancement motivated drinking; and hopelessness predicted coping motivated drinking. In addition, personality traits and drinking motives predicted problematic patterns of alcohol misuse: sensation seeking, hopelessness, and enhancement motives predicted heavy episodic drinking, while all personality traits and all drinking motives (save conformity) predicted alcohol-related problems. These findings suggest that specific personality traits in Canadian Aboriginal youth can explain specific reasons for drinking and may represent appropriate targets for intervention.

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Profound change brought upon Aboriginal peoples through colonialism and aggressive assimilation policies have led to tragic health disparities (Loppie-Reading and Wien 2009), including the abuse of alcohol. Aboriginal peoples in Canada were first exposed to alcohol by explorers, fur traders, and merchants, beginning in Eastern regions during the 1670s (Brady 2000). Among Canadian Aboriginal youth, disproportionately high levels of alcohol abuse and associated suffering occur (Kirmayer et al. 2000).

Among the majority culture, those who initiate drinking in early adolescence are more likely to increase their drinking, to experience alcohol-related problems during the teenage years, and are at greater risk for lifetime alcohol abuse or dependence than those who initiate drinking later (Grant and Dawson 1998; Hawkins et al. 1997). The median age of the total population of Aboriginal people in Canada is about 27 years (about 13 years lower than the general population; Statistics Canada 2008). The population of First Nations people under the age of 30 years was 61.1 % in 2000 compared with 38.8 % for the Canadian population in 2001 (Statistics Canada 2001). There is a need to ensure the health of this quickly growing proportion of Aboriginal people who are vital for the future of Canada. Prevention and intervention approaches must take into account factors that are associated with risky drinking patterns among Canadian Aboriginal youth. This paper focuses on developing a better understanding of two factors associated with risky drinking patterns among Canadian Aboriginal youth: personality traits and drinking motives.

Personality Traits

Anxiety sensitivity, sensation seeking, impulsivity, and hopelessness are four personality traits associated with risky drinking patterns (Conrod et al. 2000). Anxiety sensitivity involves a fear that anxiety-related sensations will lead to negative outcomes. Sensation seeking is a propensity to seek out novel and intense experiences. Impulsivity refers to a tendency to value immediate reward and a decreased ability to anticipate punishment and delay behavioral responses accordingly. Finally, hopelessness is a predisposition toward depressive and pessimistic thoughts (Conrod et al. 2000).

Drinking Motives

Cooper's (1994) motivational model identified four specific reasons or "motives" that explain why young people drink alcohol: enhancement motives (i.e., drinking to enhance positive mood), social motives (i.e., drinking to obtain positive social rewards), conformity motives (i.e., drinking to avoid social rejection/censure), and coping motives (i.e., drinking to manage negative emotions). These four motives are consistently identified in majority culture youth (Kuntsche et al. 2008). However, in one sample of Canadian Aboriginal youth, a different factor structure emerged (Mushquash et al. 2008). Specifically, a three-factor solution emerged where social and enhancement motives were combined. This factor is defined primarily by loadings from the enhancement motives scale and represents a risky drink motive as opposed to a protective drinking motive.

Relations Between Personality Traits, Drinking Motives, and Alcohol Use

In majority culture youth, the personality traits described above are uniquely related to drinking motives (Stewart et al. 2001). Youth high in anxiety sensitivity or hopelessness often drink to manage negative emotions (i.e., coping motive) and to fit in (i.e., conformity motive). Sensation seeking youth generally drink to enhance positive mood and wellbeing (i.e., enhancement motive). Finally, impulsive youth seem to drink for a variety of reasons as this personality trait is linked to all four drinking motives (i.e., enhancement, social, conformity, and coping; Woicik et al. 2009). It is important to determine whether these personality-motivation relationships generalize from majority culture youth to Canadian Aboriginal youth. If so, interventions targeting personality traits that are associated with risky drinking motives among majority culture youth might be adapted for use with Canadian Aboriginal youth (Conrod et al. 2006).

Heavy episodic (binge-type) drinking is often operationalized as having four [women] or five [men] drinks on one occasion (Wechsler and Austin 1998). Among Aboriginal people, the proportion of those who report heavy episodic drinking on a weekly basis (16.0 %) is high—double that of the general Canadian population (7.9 %; Health Canada 2009). Moreover, heavy episodic drinking among Canadian Aboriginal people is associated with various negative consequences including high rates of injury and increased mortality (Health Canada 2002). Both personality traits and drinking motives offer potential explanations for why young people engage in heavy episodic drinking and encounter negative consequences (Comeau et al. 2001). For instance, a high level of sensation seeking is associated with drinking more often and drinking a larger quantity, while all four predict alcohol-related problems (Woicik et al. 2009). Drinking for enhancement or coping reasons tend to be associated with heavy alcohol use and alcohol-related problems, and drinking for conformity reasons is associated with alcohol-related problems, but not necessarily heavier use (Cooper 1994).

Hypotheses

Based on evidence suggesting that Canadian Aboriginal youth drink for at least three primary reasons (i.e., enhancement/social, coping, conformity), we hypothesized that Mushquash et al.'s (2008) three-factor drinking motives model would receive support and represent a better fitting and more parsimonious model than Cooper's (1994) original four-factor mode. We also predicted that when using the three-factor drinking motives model, similar associations as seen in majority culture youth, will be observed in our sample of Canadian Aboriginal youth (Woicik et al. 2009), with the exception that personality traits that predict enhancement-motivated drinking among the majority culture will instead predict a combined positive reinforcement motive (reflecting a combined social/enhancement motive; Mushquash et al. 2008). Specifically, we expected that (a) anxiety sensitivity would predict conformity and coping motives, (b) sensation seeking would predict enhancement/social motives, (c) impulsivity would predict all drinking motives, and (d) hopelessness would predict conformity and coping (Woicik et al. 2009). Finally, we hypothesized that personality traits and drinking motives would predict heavy episodic drinking and alcohol-related problems. Specifically, we predicted that (a) sensation seeking, enhancement/social motives, and coping motives would predict heavy episodic drinking, and (b) all personality traits and all motives would predict alcohol-related problems.

Method

Participants

We recruited 317 youth (53 % female) from schools in various communities across Canada including: two rural communities in Nova Scotia ($n=164$), six rural communities in Saskatchewan ($n=60$), and one inner-city community in Manitoba ($N=93$). Participants averaged 16.00 years ($SD=1.37$) and had a mean grade level of 9.62 ($SD=1.20$). Youth self-identified as belonging to the following Aboriginal groups (n ; %): Mi'kmaq (164; 51.74 %), Ojibway (43; 13.56 %), Cree (40; 12.62 %), Oji-Cree (16; 5.05 %), Métis (16; 5.05 %), Dakota (9; 2.84 %), and Other (29; 9.15 %). The 'Other' category included Nakota, Saukteaux, Assiniboine, Sioux, and Dene.

Of the 317 students, 191 (60.25 %) were categorized as drinkers (i.e., consumed alcohol at least once in the past 4 months; one standard drink was defined as one bottle/can of beer, one glass of wine, or one shot of hard liquor, either straight or with a mixer). This subset of drinkers included 110 females (57.59 %) and 81 males (42.40 %) with a mean grade level of 9.81 ($SD=1.20$) and a mean age of 16.25 years ($SD=1.38$). More specifically, 25 participants were 14-years-old or younger, 39 were 15-years-old, 40 were 16-years old; 37 were 17-years-old, and 50 were 18-years old or older. On average, this subset of drinkers consumed 3.40 drinks per week ($SD=5.64$).

Measures

Substance Use Risk Profile Scale The Substance Use Risk Profile Scale (SURPS; Woicik et al. 2009) is a 23-item scale that assesses risky personality factors for substance misuse with four subscales (i.e., anxiety sensitivity [5 items; e.g., "Its frightening to feel dizzy or faint"], sensation seeking [6 items; e.g., "I enjoy new and exciting experiences even if they are unconventional"], impulsivity [5 items; e.g., "I usually act without stopping to think"], and hopelessness [7 items; e.g., "I feel that I am a failure"]). Participants rate each item on a scale from 1 (*strongly disagree*) to 4 (*strongly agree*). Subscale scores are computed by summing the items of each subscale. Evidence suggests the SURPS is valid and reliable in both majority culture and Canadian Aboriginal youth (Stewart et al. 2011; Woicik et al. 2009).

Drinking Motives Questionnaire-Revised The Drinking Motives Questionnaire-Revised (DMQ-R; Cooper 1994) is a 20-item measure that assesses Cooper's (1994) drinking motives (i.e., enhancement [5 items; "Because it's fun"], social [5 items; "To celebrate a special occasion with friends"], conformity [5 items; "To fit in with a group you like"], and coping [5 items; "To forget about your problems"]). Participants indicate how often they drink for each reason on a 5-point scale from 1 (*almost never/never*) to 5 (*almost always/always*). Subscale scores are computed by averaging responses across subscale items. The DMQ-R is reliable and valid in both majority culture and Canadian Aboriginal youth (Cooper 1994; Mushquash et al. 2008; Stewart et al. 2011).

Heavy Episodic Drinking Consistent with past research (Wechsler and Austin 1998), we assessed heavy episodic drinking with one item: "How often do you have four (five if you are male) or more drinks on one occasion?" Participants chose one of five options: Never (scored as 1), Less than monthly (scored as 2), Monthly (scored as 3), Weekly (scored as 4), and Daily or almost daily (scored as 5). Two participants reported daily or almost daily; these outliers were recoded as weekly to reduce their impact. We created a measure of yearly heavy episodic drinking frequency

to allow for ease in comparing our results with those from previous studies. Each response was recorded as follows: never → 0 occasions per year; less than monthly → 6 occasions per year; monthly → 12 occasions per year; weekly → 52 occasions per year (Kuntsche et al. 2005).

Rutgers Alcohol Problems Index The Rutgers Alcohol Problems Index (RAPI; White and Labouvie 1989) is a 23-item questionnaire measuring negative consequences associated with youth drinking (e.g., “Had withdrawal symptoms, that is, felt sick, because you stopped or cut down on drinking”). White and Labouvie (1989) suggested shorter time frames (i.e., less than 1 year) could be used to measure more recent alcohol-related consequences. Consistent with Conrod et al. (2006), we used a modified RAPI to assess negative consequences across 4-months and changed the anchors from 0 (*never*) to 4 (*more than 10 times*), to 0 (*never*) to 4 (*more than 6 times*). A total RAPI score was calculated by summing all item responses. The RAPI is reliable and valid in both majority culture and Canadian Aboriginal youth (Conrod et al. 2006; Noel et al. 2010; White and Labouvie 1989).

Procedure

A university Research Ethics Board approved the present study. Information about the study was distributed to parents/guardians who were given an opportunity to contact the school if they did not consent to having their child participate (i.e., negative consent). Students were informed that the purpose of the study was to learn about personality traits and reasons for drinking alcohol. We obtained written informed consent from each student who chose to participate. Of the students who attended school on study administration days, most participated (>98 %). Questionnaires were distributed to students, which included all of the study variables in the following order: heavy episodic drinking, DMQ-R, RAPI, SURPS. Questionnaires were not counterbalanced. All questionnaires were anonymous and students completed them independently in paper-and-pencil format. Throughout the study, investigators and community members were trained and encouraged to be respectful in their relationships with individuals in the community who are as carriers of traditional knowledge (i.e., cultural resource people, Elders, traditional advisors). For example, researchers were educated to uphold cultural protocols (e.g., listen without interruption when an Elder spoke).

Data Analytic Strategy

Participants missing more than 20 % of their responses were excluded from analyses. Pairwise deletion was used with remaining participant data. We conducted confirmatory factor analyses to compare the fit of the three-factor and four-factor models using Mplus 6.1. For the three-factor model, social motive and enhancement motive items were constrained to load on a single factor. Model fit was assessed with multiple indices including the χ^2/df ratio, the comparative fit index (CFI), the root-mean-square error of approximation (RMSEA), and the standardized root-mean-square residual (SRMR). Excellent model fit is suggested by a χ^2/df ratio around 2, a CFI in the range of .95, a RMSEA less than .06, and a SRMR less than .08 (Hu and Bentler 1999). Moderate model fit is suggested by a CFI in the range of .90, a RMSEA in the range of .08, and a SRMR in the range of .10 (Bentler 1992; Browne and Cudeck 1993). Some researchers recognize the RMSEA as one of the most informative criteria (Byrne 1998); thus, more weight given to the RMSEA when evaluating model fit might be warranted.

To test whether personality traits predict drinking motives, we computed hierarchical regression analyses for each drinking motive. We computed additional hierarchical regression analyses to test if the personality traits and drinking motives predict heavy episodic

drinking and alcohol-related problems. In all regression analyses, we entered sex in Model 1 to control for established differences between young men and women (Woicik et al. 2009).

Results

Descriptive Statistics

Means, standard deviations, and Cronbach's alphas for all measures are presented in Table 1. The values for the SURPS subscales and the DMQ-R subscales were generally consistent with published norms in comparable majority culture samples (Kuntsche et al. 2008; Woicik et al. 2009). Yearly rates of heavy episodic drinking were consistent with prior studies focusing on non-Aboriginal youth (Serdula et al. 2004). The RAPI score was consistent with past research involving Canadian Aboriginal youth (Noel et al. 2010).

Confirmatory Factor Analysis

Fit indices suggest the hypothesized three-factor drinking motives model had moderate fit: χ^2/df ratio=2.23, CFI=.86, RMSEA=.08 (90 % CI: .07–.09) and SRMR=.08 (see Table 2). The four-factor model also had moderate fit: χ^2/df ratio=2.23, CFI=.86, RMSEA=.08 (90 % CI: .07–.09) and SRMR=.08. Despite being lower than anticipated, CFI values for both models can be considered marginal but adequate (i.e., CFI values between .80 and .89; Knight et al. 1994). Since both models were adequate, we used a comparative fit index to test which model fit best. The Bayes information criterion (BIC; Raftery 1993; Schwarz 1978) is useful in comparing competing models. Burnham and Anderson (2002) suggest smaller BIC values indicate better fit and parsimony. A BIC difference of four or more provides definite evidence of model superiority, a difference of two to four units provides some evidence of model superiority, and a difference of less than two is inconclusive (Burnham and Anderson 2002).

The BIC for the three-factor model (BIC=10886.39) was 8.06 units smaller than the BIC value for the four-factor model (BIC=10894.45) offering clear evidence of model superiority and parsimony. Overall, results suggest both the three-factor model and the four-factor model adequately fit the data. However, comparative analyses provide support for the superiority of the three-factor model. Prior to subsequent analyses, we created and saved

Table 1 Means, standard deviations, and Cronbach's alphas

Variable	<i>M</i>	<i>SD</i>	α
SURPS Anxiety sensitivity	10.60	2.85	.70
SURPS Sensation seeking	16.61	3.21	.59
SURPS Impulsivity	12.17	2.53	.49
SURPS Hopelessness	14.42	4.20	.78
DMQ-R Enhancement	2.61	1.06	.83
DMQ-R Social	2.64	1.01	.80
DMQ-R Conformity	1.53	0.61	.66
DMQ-R Coping	2.15	0.88	.75
Heavy episodic drinking	14.79	17.74	
RAPI	19.86	16.22	.92

SURPS Substance Use Risk Profile Scale; *DMQ-R* Drinking Motives Questionnaire Revised; *RAPI* Rutgers Alcohol Problem Index

Table 2 Standardized factor loadings for the DMQ-R three-factor model and four-factor model

DMQ-R item	Factor	Three-factor model	Factor	Four-factor model
1. To forget your worries	Coping	.46***	Coping	.46***
2. Because your friends pressure you to drink	Conformity	.13	Conformity	.13
3. Because it helps you enjoy a party	Enhancement/ social	.62***	Social	.62***
4. Because it helps you when you feel depressed or nervous	Coping	.72***	Coping	.72***
5. To be sociable	Enhancement/ social	.54***	Social	.55***
6. To cheer up when you are in a bad mood	Coping	.66***	Coping	.67***
7. Because you like the feeling	Enhancement/ social	.65***	Enhancement	.67***
8. So that others won't kid you about not drinking	Conformity	.48***	Conformity	.48***
9. Because it's exciting	Enhancement/ social	.73***	Enhancement	.74***
10. To get high	Enhancement/ social	.62***	Enhancement	.64***
11. Because it makes social gatherings more fun	Enhancement/ social	.76***	Social	.78***
12. To fit in with a group you like	Conformity	.64***	Conformity	.63***
13. Because it gives you a pleasant feeling	Enhancement/ social	.77***	Enhancement	.78***
14. Because it improves parties and celebrations	Enhancement/ social	.71***	Social	.74***
15. Because you feel more self-confident and sure of yourself	Coping	.56***	Coping	.56***
16. To celebrate a special occasion with friends	Enhancement/ social	.64***	Social	.66***
17. To forget about your problems	Coping	.71***	Coping	.72***
18. Because it's fun	Enhancement/ social	.72***	Enhancement	.71***
19. To be liked	Conformity	.77***	Conformity	.77***
20. So you won't feel left out	Conformity	.73***	Conformity	.73***

DMQ-R Drinking Motives Questionnaire Revised

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

factor scores for each of the three drinking motives to use as dependent variables. This allowed us to create statistically “pure” motive scores for each participant on each of the three supported motives factors.

Bivariate Correlations

Bivariate correlations are presented in Table 3. Consistent with past research, sex was significantly correlated with sensation seeking with males exhibiting higher levels (Woicik et al. 2009). Anxiety sensitivity was positively related to conformity (but not coping) motives, sensation seeking was positively related to enhancement motives, impulsivity was positively

Table 3 Bivariate correlations

Variable	1	2	3	4	5	6	7	8	9	10
1. Sex	–	-.12	.21**	.01	-.12	.06	.12	-.02	.11	.03
2. SURPS Anxiety sensitivity		–	-.03	.20*	-.13	.06	.17*	.08	.02	.17*
3. SURPS Sensation seeking			–	.32**	-.30**	.30**	.15	.15	.16*	.26**
4. SURPS Impulsivity				–	-.07	.29**	.17*	.21**	.09	.35**
5. SURPS Hopelessness					–	-.09	.02	.15*	.09	.25**
6. DMQ-R Enhancement/social						–	.39**	.52**	.32**	.39**
7. DMQ-R Conformity							–	.46**	.12	.31**
8. DMQ-R Coping								–	.28**	.47**
9. Heavy episodic drinking									–	.38**
10. RAPI										–

Sex coded: 1 = female, 2 = male; *SURPS* Substance Use Risk Profile Scale; *DMQ-R* Drinking Motives Questionnaire Revised; *RAPI* Rutgers Alcohol Problem Index

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

related to all drinking motives, and hopelessness was related to coping (but not conformity) motives. Consistent with past research, sensation seeking, enhancement/social motives, and coping motives were positively related to heavy episodic drinking and all personality traits and all drinking motives were positively related to alcohol-related problems (Kuntsche et al. 2008; Woicik et al. 2009).

Personality Traits as Predictors of Drinking Motives

Regression analyses (see Table 4) indicated that sex significantly predicted conformity motives with males showing significantly higher conformity motives. Personality traits significantly predicted drinking motives over and above sex. More specifically and generally consistent with hypotheses, anxiety sensitivity predicted conformity (but not coping) motives, sensation seeking and impulsivity predicted enhancement motives, and hopelessness predicted coping (but not conformity) motives.

Personality Traits and Drinking Motives as Predictors of Heavy Episodic Drinking and Alcohol-Related Problems

Neither sex nor the block of four personality traits significantly predicted heavy episodic drinking (see Table 5). However, sensation seeking and hopelessness significantly and independently predicted heavy episodic drinking. This suggests that sensation seeking and hopelessness are important predictors among Aboriginal youth. Consistent with hypotheses, drinking motives, particularly enhancement/social and coping motives, significantly predicted heavy episodic drinking after controlling for sex. Moreover, as predicted, all personality traits, and enhancement/social and coping motives significantly predicted alcohol-related problems. However, contrary to prior research in majority culture adolescents (Cooper 1994), conformity motives were not significant independent predictors of alcohol-related problems after controlling for the other drinking motives.

Table 4 Hierarchical regression analysis predicting drinking motives

Predictors	R^2	Adj. R^2	β	ΔR^2	ΔF	df
Enhancement/social motive						
Model 1: Sex	.01	.00	.09	.01	1.28	1, 172
Model 2: SURPS	.13	.11		.12	6.01**	4, 168
Anxiety sensitivity			.03			
Sensation seeking			.22*			
Impulsivity			.21**			
Hopelessness			-.00			
Conformity motive						
Model 1: Sex	.03	.02	.16	.03	4.42**	1, 172
Model 2: SURPS	.10	.07		.07	3.25**	4, 168
Anxiety sensitivity			.19*			
Sensation seeking			.12			
Impulsivity			.10			
Hopelessness			.11			
Coping motive						
Model 1: Sex	.00	-.01	.02	.00	.08	1, 172
Model 2: SURPS	.10	.07		.10	4.48**	4, 168
Anxiety sensitivity			.09			
Sensation seeking			.16			
Impulsivity			.16			
Hopelessness			.22**			

Sex coded 1 = female, 2 = male; SURPS Substance Use Risk Profile Scale; DMQ-R Drinking Motives Questionnaire Revised

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

Discussion

Consistent with hypotheses, results supported the three-factor drinking motives model in our sample of Canadian Aboriginal youth. While absolute fit indices suggest both the three-factor model and four-factor model adequately fit the data, when the two models were directly compared the three-factor model was superior and more parsimonious. This finding supports Mushquash et al.'s (2008) conclusions that Canadian Aboriginal youth may not drink for social reasons, and instead drink to cope, to conform, or to enhance positive emotions/experiences. For Canadian Aboriginal youth, drinking in social situations may not be motivated by social affiliation (i.e., social motive), but instead motivated by a desire to enhance positive mood and wellbeing (i.e., enhancement motive).

Relationships between personality traits and drinking motives were generally consistent with majority culture findings (Woicik et al. 2009). As hypothesized, youth who exhibit fear of anxiety-related sensations drink to avoid social rejection/censure; sensation seeking and impulsive youth drink to enhance positive mood; and hopelessness youth drink to manage their negative emotions. Counter to hypotheses, exhibiting high levels of anxiety sensitivity was not significantly related to drinking to manage negative emotions. Zvolensky et al. (2001) found that American Indian and Alaskan

Table 5 Hierarchical regression analysis predicting heavy episodic drinking and alcohol-related problems

Predictors	R^2	Adj. R^2	β	ΔR^2	ΔF	df
Heavy episodic drinking						
Model 1: Sex	.01	.01	.12	.01	2.16	1, 156
Model 2: SURPS	.07	.04		.06	2.48	4, 152
Anxiety sensitivity			.05			
Sensation seeking			.20*			
Impulsivity			.06			
Hopelessness			.21*			
Heavy episodic drinking						
Model 1: Sex	.01	.01	.11	.01	1.97	1, 162
Model 2: DMQ-R	.13	.11		.12	7.48***	3, 159
Enhancement/social			.24**			
Conformity			-.05			
Coping			.18*			
RAPI						
Model 1: Sex	.00	-.00	.05	.00	.49	1, 171
Model 2: SURPS	.290	.27		.29	16.78**	4, 167
Anxiety sensitivity			.18*			
Sensation seeking			.29**			
Impulsivity			.24*			
Hopelessness			.40**			
RAPI						
Model 1: Sex	.00	-.01	.00	.03	.13	1, 179
Model 2: DMQ-R	.26	.24	.26		20.09***	3, 176
Enhancement/social				.19*		
Conformity				.09		
Coping				.33***		

Sex coded 1 = female, 2 = male; *SURPS* Substance Use Risk Profile Scale; *DMQ-R* Drinking Motives Questionnaire Revised; *RAPI* Rutgers Alcohol Problem Index

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

Native college students reported significantly greater overall anxiety sensitivity than the majority (Caucasian) culture. It might be that coping motivated drinking for these groups is related to relieving physical tension. Since the DMQ-R does not specifically measure relief of physical tension, future research should examine if a more specific relationship between anxiety sensitivity and coping with anxiety motives (using the Modified DMQ-R; Grant et al. 2007) exists in Aboriginal youth. Unexpectedly, hopelessness among youth was not significantly related to drinking to avoid social rejection/censure. It is unclear why this relationship failed to reach significance in our sample suggesting that additional research is needed. Overall, results of the present study largely support hypotheses and suggest the personality-motivation model of alcohol misuse is valid in Canadian Aboriginal youth.

Results converge with past research among majority culture youth (Sher et al. 2000), and indicate that individuals with a higher need to experience novel and intense

experiences (sensation seekers) are more likely to engage in heavy episodic drinking patterns (Conrod et al. 2006). In the present study, we also found that a predisposition toward depressive and pessimistic thoughts (i.e., hopelessness) was associated with greater heavy episodic drinking. These results are consistent with research linking depression to heavy drinking among majority culture (Grant et al. 2009). When testing the influence of specific drinking motives on heavy episodic drinking, as hypothesized, we found that Canadian Aboriginal youth who drink to enhance positive experiences or to deal with negative emotions often drink more heavily. Finally, we found that heavy episodic drinking frequency was associated with greater levels of alcohol related problems.

All personality traits and all drinking motives (except conformity) were associated with greater alcohol-related problems—Canadian Aboriginal youth with high levels of these specific personality traits and specific drinking motives were more likely to experience adverse outcomes from their alcohol use. This is consistent with findings from majority culture youth (Cooper 1994; Woicik et al. 2009). However, contrary to past research (Cooper 1994) and to hypotheses, drinking to avoid social rejection/censure was not associated with greater alcohol-related problems. It is possible that conformity is not as influential a motivator in predicting why Aboriginal youth develop negative alcohol-related consequences or that Aboriginal youth experience other negative consequences (e.g., bullying, fighting; Kuntsche et al. 2007) as a result of higher levels of conformity. These possibilities require further evaluation. Overall, results suggest that personality traits and drinking motives are relevant for explaining the drinking behavior and alcohol-related problems of Canadian Aboriginal youth.

Implications, Limitations, and Future Directions

Targeted interventions, focusing on specific risky personality traits and drinking motives, have been tested and supported in majority culture youth (O’Leary-Barrett et al. 2010). Results of the present study suggest that specific personality traits and drinking motives are related to specific patterns of alcohol use and alcohol-related problems. Thus, interventions targeting these personality traits and drinking motives among Canadian Aboriginal youth may be indicated, although future research is needed to test this assertion.

Our study used a cross-sectional design to test the relationships between personality traits, drinking motives, heavy episodic drinking, and alcohol-related problems. Such designs preclude drawing conclusions regarding temporal relations and causality. Future research should use longitudinal designs that allow for temporal separation of independent and dependent variables. Another limitation is our reliance on self-report questionnaires, which have limited data supporting their psychometric properties in Canadian Aboriginal youth (see Mushquash et al. 2008; Noel et al. 2010; Stewart et al. 2011 for existing evidence). Self-report questionnaires may reflect biases in self-perception and recall. Other methods of assessment (e.g., informant reports) would be useful in supplementing self-report data. In addition, our measure of heavy episodic drinking may lack in precision since participants were asked to estimate their frequency of heavy episodic drinking by choosing one of five anchors. To increase precision, researchers may consider providing participants the opportunity to answer an open-ended question regarding their frequency of heavy episodic drinking. Finally, Cronbach’s alphas were lower than expected for some scales (e.g., SURPS impulsivity and sensation seeking subscales). Additional research is needed to determine why these scales failed to adequately assess the desired constructs in our sample.

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