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Drinking motives as mediator between social anxiety and alcohol use among private university students in Klang Valley

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Abstract

As social anxiety becomes a threat, drinking becomes a trend in experiencing relaxation, acceptance of peers and decreases performance fear. Individuals with social anxiety disorder are two to three times more likely to establish alcohol use disorder. This paper sought to assist in integrating a detailed analysis of potential unique mediator of alcohol use among socially anxious people. The findings suggested that students with high social anxiety endorsed greater negative reinforcing drinking motives (coping, conformity) which independently mediate the relationship between the social anxiety and alcohol use, whereas enhancement motives and social motives were statistically non-significant.

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1. Introduction

One of the most common mistakes made when addressing behavioral issues is the failure to recognize that the behavior often stems from fear of social norms. This leads to social anxiety; the experience of feeling discomfort and inhibition in social context (Leary, 2013).

Social comparison theory proposed that individuals belonging to the low - status group will instill negative evaluation on themselves based on their beliefs about how they were being perceived by others, which is likely to

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contribute to negative interpersonal interactions (Borelli & Prinstein, 2006). This will eventually lead to negative self-perception, thus promotes fear being in a crowd, which grows excessive over time and will give debilitating impacts on individual's social functioning (Brown & Marshall, 2002) and vocational success that could last a lifetime. Researchers framed social anxiety as social cognitive causes that might be related in proactive prosocial behavior which refers to the self-serving social cognitive style; gaining something from doing something (Culotta & Goldstein, 2008). As social anxiety becomes a threat, drinking becomes a trend in experiencing relaxation or acceptance among peers.

Past studies (e.g., Abrams, Kushner, Medina & Voight, 2002; as cited in Gilles, Turk, & Fresco, 2006) show that alcohol consumption decreases performance fear. Alcohol use continues to be a major concern among people within the age group 15 – 29 (WHO, 2011). Besides the personality traits and easy availability of alcohol beverages nationwide at affordable rates (Azizi, 2006), the possibilities of not encountering any harmful contacts in the family or society engaging in alcohol have also driven them to consuming alcohol.

Alcohol has been described to have undesirable effects and lasting implications on drinkers and surrounding. The Harvard School of Public Health College Alcohol Study (CAS) had randomly surveyed 140 colleges in 39 states in the District of Columbia in year 1999, in which Wechsler, Lee, Kuo, and Lee (2000) outlined that among 388 college freshman, 22% reported engaging in unintentional sexual situations under the influence of alcohol, as well as experienced blackouts (45%), increased tolerance (56%), and withdrawal symptoms (5%). Due to alcohol excesses, the number of fatal road accidents and injuries in Malaysia has increased, hence are very alarming to the nation. Of a total of 710 fatal road traffic deaths registered by the Malaysian Institute of Road Safety Research (MIROS) for the period of 2006 to 2009, Norlen et al. (2012) concluded that 76.8% cases of road traffic deaths were tested positive for alcohol and other drug substances, within the age group of 20–29 years old.

Studies have found a strong comorbidity between social anxiety and alcohol use (e.g., Grant et al., 2004). For instance, individuals with social anxiety disorder are two to three times more likely to establish alcohol use disorder (Stewart, Morris, Mellings & Komar, 2006). Alcohol use and social anxiety disorders can result in both significant physiological and psychological impairment, especially among individuals with comorbid diagnoses (Smith & Randall, 2012). Many studies have been conducted to find the specific factors that moderate or mediate the relationship between social anxiety and alcohol use. In this study, drinking motives will be examined to find the potentiality being a mediator between Social Anxiety Disorder and Alcohol Use Disorder.

1.1 Drinking Motives

Drinking motives are defined as the reasons or final pathway to the consumption of alcohol (Kuntsche, Knibbe, Gmel, & Engels, 2006). Cooper (1994) had proposed four types of drinking motives; (1) enhancement motives and social motives as positively reinforcing drinking, and (2) conformity motives and coping motives as negatively reinforcing drinking. Enhancement motives involve drinking to increase positive affect states or positive moods, such as sensation seeking and pleasurable moments (Ham & Hope, 2003). Alcohol is widely used to fulfil needs for novelty and stimulation to create the thrills or sensation over the social situations. Reports suggested that individuals who are internally generated are more consistent across a drinking situation on how much they drink than those of with external motives who consume large amount of alcohol (Ham & Hope, 2003; Loxton, Bunker, Dingle, & Wong, 2015). Social motives involve drinking to achieve social affiliation as such to establish or maintain a good relationship or to attract the opposite sex. These drinkers are extroverts who use alcohol to get aligned with the social situations with peers (Stewart & Devine, 2000) and are more towards normative drinking behavior.

Next is conformity motives involve drinking to avoid the experience of social rejection, in which the desire to attain peer acceptance and social approval (Ham & Hope, 2003) creates room for an individual to drink. According to Cooper (1994), an individual has conformity motives to drink when there are strong pressures to conform, especially among men who have greater self-consciousness pick up to drink to avoid aversive consequences such as social embarrassment (Ham & Hope, 2003). It is the choice of going along or going alone, which generally falls back at going along as it is often adaptive (Griskevicius, Goldstein, Mortensen, Cialdini, & Kenrick, 2006). Finally, coping motives involve drinking to avoid the experience of negative emotions such as depression or anxiety. Lewis et al. (2008) outlined that socially anxious students consume alcohol more frequently on the basis of coping with negative

feelings. In other word, it could refer to as drinking to cope with fear or stress, avoidance, or self-medication drinking (Ham & Hope, 2003).

In this paper, a quantitative study was conducted to examine the mediating role of drinking motives in the relationship between social anxiety and alcohol use among students in the age range between 18 and 30 years old. Negative reinforcement drinking motives; coping motives and conformity motives, were hypothesized to significantly mediate the relationship between social anxiety and alcohol use the most. With the findings, these individuals could be taught the healthy ways to achieve the desired outcome in social context, without intoxication.

2. Methodology

A large sample of 600 students from seven private universities in Klang Valley which were selected by systematic random sampling volunteered to participate in this study. One hundred ninety-five participants were excluded from data analysis for not meeting the eligibility criteria; which were (1) had tried alcohol at least once in a lifetime, (2) had not been or being treated for alcohol-related illness. Informed-consent was given by every participant as a pre-requisite for this study. The survey was administered on the spot and was collected at the time of completion. The duration taken to complete the survey was less than 30 minutes. Data management and analyses were conducted using Statistical Package for Social Sciences (SPSS) version 22. Ethical guidelines, as specified by the Human Research Ethics Committee, Universiti Sains Malaysia, were followed strictly.

2.1 Measures

The Social Interaction Anxiety Scale (SIAS; Mattick, & Clarke, 1998) was developed to measure the respondents' self-statements of their reaction to social situations associated with social anxiety according to DSM-IV criteria. The 20 items of SIAS administered on a 5-point scale from 0 (not at all) to 4 (extremely). The SIAS is scored by summing all items (after reversing the 3 positively worded items; 5, 9, and 11). Total scores range from 0 to 80; with scores more than 43 indicates social anxiety (Mattick & Clarke, 1998). This scale has good psychometric properties as attested by satisfactory test-retest reliability ($r = .88$) and possess a good convergent (Kadir, Rahman, & Desa, 2014) and discriminant validity.

The Alcohol Use Disorders Identification Test (AUDIT) was developed by WHO (1982), a collaborative project by six centers representing a broad variety of cultural groups to determine if an individual's alcohol use is harmful. Consists of 10 items, each item is scaled from 0 to 4. The interpretation for the scaling rates for each item differs accordingly, scoring from 0 to 40. Total scores of eight or more indicate hazardous and harmful alcohol use, as well as alcohol dependence. A test-retest reliability indicated high reliability ($r = .86$). AUDIT has shown a good concurrent validity with other measures of alcohol abuse and psychosocial difficulties (O'Hare, Sherrer, LaButti, & Emrick, 2004; Yee, Adlan, Rashid, Habil, & Kamali, 2014).

The Drinking Motive Questionnaires-Revised was proposed by Cooper in 1994 consisting four drinking motives; enhancement motives, social motives, conformity motives and coping motives. Participants were rated on a 5-point scale from 1 (Never) to 5 (Always) how frequently each of the 28 listed reasons motivate them to drink alcoholic beverages. Subscale scores are derived by summing all items loading into each subscale. The Modified DMQ-R is highly reliable (Cronbach's $\alpha = .95$) and suggested a good concurrent validity (Grant, Stewart, O'Connor, Blackwell, & Conrod, 2007).

3. Analysis and discussion

One hundred ninety-five participants who had never tried alcohol before had been excluded for not meeting the eligibility criteria. The final sample ($n = 405$) was predominantly males (64.0%), between age 18 to 20 years old (70.0%) and Chinese (55.0%). The majority of the participants (62%) had no source of income and was dependent on caretakers, and only 6.0% respondents were employed full-time at the time of the survey taken. Out of 405 participants (first year students; 61.0%), those studying Foundation/Diploma seemed to be higher (79.0%) compared to those studying at the level of Undergraduates/Postgraduates.

A mediation test was conducted on the drinking motives using Baron and Kenny’s (1986) multiple regression technique to obtain estimates of the path coefficients. First, the unstandardized coefficient for the prediction of alcohol use from social anxiety (path *c*) was $\beta = .14$, which was statistically significant, $t(403) = 27.41, p < .001$.

Next was performed using SIAS scores (predictor) to predict each of the four DMQ-R scale scores (mediators). The negative reinforcing drinking motives were statistically significant and greater than enhancement motives and social motives. The result indicated that higher scores of SIAS independently predict greater conformity motives, $\beta = .11$ with $t(403) = 5.70$, significant at $p < .001$, adjusted $R^2 = .08, F(1, 403) = 32.51, p < .001$, followed by coping motives, in which the path a_4 coefficient was $\beta = .21, t(403) = 4.42, p < .001$, significant with adjusted $R^2 = .05, F(1,403) = 19.55, p < .001$. The positive reinforcing drinking motives, too, displayed a significant positive relationship with social anxiety; however the chances of social anxiety predict social motives and enhancement motives were found to be relatively lower than conformity motives.

Finally, all four drinking motives (mediator) and SIAS scores (predictor) were simultaneously regressing onto the AUDIT scores (criterion). The linear combination of these predictor variables explained approximately 28% of the variance of alcohol use, and was significantly related to AUDIT scores. It can be concluded that all the drinking motives had significant positive regression weights, indicating students consume alcohol more on the basis of conformity motives than coping motives. By examining the beta weights (see Table 1), conformity motives followed by coping motives were making relatively large contributions to the prediction model, followed by social anxiety; which dropped from a significant beta to a smaller significant beta. Hence, it is evidently proved to be a partial mediation.

Table 1
Multiple Regression Analysis of Social Anxiety and Drinking Motives on Alcohol Use

	<i>t</i>	<i>P</i>	<i>B</i>	<i>F</i>	<i>df</i>	<i>p</i>	adj. <i>R</i> ²
Alcohol Use				9.98	389	.000	.25
Social Anxiety	3.69	.000	.09				
Enhancement Motives	.31	.760	.03				
Social Motives	1.14	.254	.10				
Conformity Motives	2.00	.046	.17				
Coping Motives	3.22	.001	.13				

Note: Significant at $p < .05$

A mediation diagram as shown in Figure 1 displays the standardized regression coefficients for the relationship between social anxiety and alcohol use as mediated by the drinking motives. The standardized regression coefficient between these variables, controlling for drinking motives and socio-demographic factors, is in parentheses.

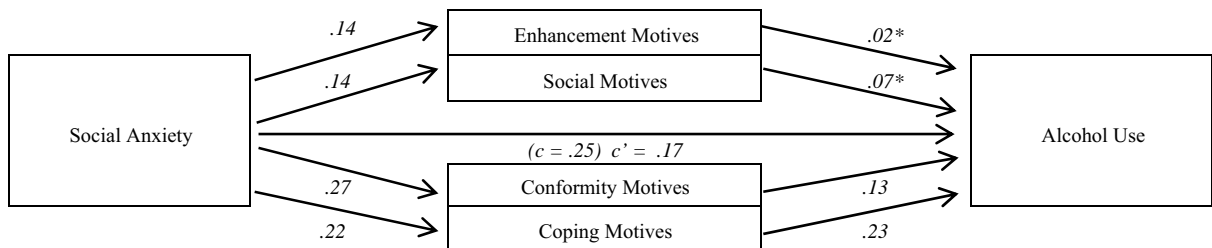


Figure 1. Direct and indirect effect sizes on prediction of alcohol use.

Note: *. Not significant.

Additionally, the size of the indirect effect of the mediators was computed using Sobel Test. The test results concluded that conformity motives ($z = 3.54, p < .000$) followed by coping motives ($z = 2.63, p \leq .01$) act as significant mediators in the relationship between social anxiety and alcohol use; whereas there were insufficient evidence to conclude enhancement motives and social motives as mediators due to its non-significant p -values obtained.

Hence, in this study it was statistically proven that coping motives followed by conformity motives have been the most commonly used drinking motives by socially anxious students; thus the null hypothesis rejected.

4. Conclusion, recommendation and limitation

This paper sought to assist in integrating a detailed analysis of potential unique mediator of alcohol use among socially anxious people. Social anxiety was not significantly associated with positively reinforcing drinking motives (social, enhancement). Socially anxious people may consume alcohol to cope with negative emotions that were provoked by social situations, and/or may likely to drink due to peer pressure and to avoid being neglected from the peer group, which supported the fact that negative reinforcing drinking; coping motives and conformity motives have a stronger association with social anxiety and alcohol use (Schry & White, 2013). These results are in line with Teunissen et al. (2012) who supports the notion that adolescents' compliance for conformity purposes may be predominantly motivated by social rewards. Cohen and Prinstein (2006) argued that students may not equally conform to all peers. To achieve social affiliation, these students may choose to conform to the popular peers than the ordinary ones; who were more willing to engage in social aggression and health risk behaviors like bullying, vandalism and substance abuse.

Consistent with prior work (e.g., Lewis et al., 2008; Stewart et al., 2006), students with high social anxiety endorsed greater negatively reinforcing drinking motives (conformity, coping) which independently mediated the relation between social anxiety and alcohol use. The research hypothesis proposed in this study was evidently supported.

These results are in line with Teunissen et al. (2012) who supports the notion that adolescents' compliance to conformity purposes may be predominantly motivated by social rewards. Cohen and Prinstein (2006) argued that students may not equally conform to all peers. To achieve social affiliation, these students may choose to conform to the popular peers than the ordinary ones; tending to willingly engage in social aggression and health risk behaviors like bullying, vandalism and substance abuse to gain similar popularity and be accepted in peer group. Kuntsche (2007) made it clear that it may not be alcohol use predicts violence; but the individuals themselves who drinks to fit into the group and not to be rejected by peers were appeared to act violent even without a heavy dosage of alcohol use.

On the other hand, the first year undergraduates were among the most vulnerable group who often experience unpleasant feelings with their seniors and surroundings, and able to drink more frequently to get rid of feeling depressed and stress (Lewis et al., 2008). Their poor adjustment to college life provokes the tendency to use alcohol as coping mechanism to alleviate stress and other negative emotions (Park, 2004; Park & Grant, 2005). Zamboanga and Ham (2008) claimed that college students were highly vulnerable to homesick, especially the foreign first year students. Alcohol will be seen as a self - medication model to cope with their loneliness. It was argued that coping motives lead to adverse long-term consequences because the discrepancies that foster negative affectivity have never been adequately addressed (e.g., Cooper et al., 1995; Kassel et al., 2000; as cited in Kuntsche et al., 2006).

Overall, this paper gave a unique glimpse on the association between social anxiety, drinking motives and alcohol use. Convincingly, it can be concluded that the most commonly used drinking motives among socially anxious students were the negative reinforcement drinking; which were conformity motives followed by coping motives. The findings from this study may act as a stepping stone and are very essential to make further development in this area. Future research is necessary to determine how this knowledge can be incorporated into prevention and intervention programs for the at-risk group of people. It was also made significant that women and men have different patterns of alcohol use and contrary responds to alcohol, thus gender-specific interventions would be useful either. Treatment and preventive interventions are needed to increase the well-being of the college students who were considered to be the hope of the Nation in the long run.

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