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Mediation Role of Motives in the Relationship Between Urgency and Alcohol

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ABSTRACT
Previous work has shown that both negative urgency (the tendency to engage in risky behavior in response to extreme negative affect) and positive urgency (the tendency to engage in risky behavior in response to extreme positive affect) correlate with problematic alcohol consumption. Research has also shown that coping motives (alcohol use to avoid or escape negative affect) and enhancement motives (alcohol use to pursue or enhance positive affect) also correlate with problematic alcohol use. We know, through previous research, that the concept of personality has an effect on acquisition of different learning experiences, which is also known as acquired preparedness. However, there has not been a lot of research done that looks at the mediational effects of learning on the relationship between urgency and alcohol problems. Thus, the goal of this paper is to examine whether negative and positive urgency predict drinking quantity through an increase in the coping and enhancement motives respectively. 418 first year students at a public mid-western university participated in the study (75% female, 25% male), they were all sampled three times during the first year of college (beginning of fall semester, end of fall semester, and end of spring semester). Their age ranged from 18 to 32 (mean = 18.2, SD = 0.76), and the majority of the sample was Caucasian. Results showed that negative urgency at time 1 was a significant predictor of drinking quantity at time 3 ($\beta = .213, p < .001$), and this relationship was reduced to non-significance with the addition of time 2 coping motives ($\beta = .053, p = .452$), and time 2 coping motives became a significant predictor of drinking quantity ($\beta = .035, p = .001$). Negative urgency was a significant predictor of drinking quantity at time 3 ($\beta = .258, p < .001$). The significance of this relationship was significantly reduced with the addition of time 2 enhancement motives ($\beta = .132, p = .001$), and time 2 enhancement motives became a significant predictor of drinking quantity ($\beta = .592, p < .001$). This study suggests that the initial presence of the urgency traits leads to learning mood congruent alcohol motives, which then lead to increased alcohol consumption during the first year of college (fully for negative urgency and partially for positive urgency).

INTRODUCTION

Fundamental Hypothesis 1: The association between positive urgency and drinking quantity is mediated by enhancement motives to use alcohol

Fundamental Hypothesis 2: The association between negative urgency and drinking quantity is mediated by coping motives to use alcohol

The urgency traits:
More recently, researchers have identified two separate dimensions of urgency: Negative Urgency (NUR) – tendency to act rashly when faced with distress
Positive Urgency (PUR) – tendency to act rashly when in an extreme positive emotional state

Drinking motives:
Enhancement Motives (ENH) – engagement in alcohol use to pursue or enhance positive affect (Cooper et al., 2000)
Coping Motives (COPE) – engagement in alcohol use to avoid or escape negative affect (Cooper et al., 2000)

The Acquired Preparedness Model:
Attempts to integrate psychosocial learning and disposition approaches to risk taking
Suggests that personality traits influence the learning process, therefore, traits indirectly influence drinking through alcohol-related learning (Smith & Anderson, 2001)

METHODS

N = 418 (75% female, mean age = 18.2, 95.75% European-American)
They completed a series of self-report questionnaires that included the following measures: Demographics, DSQ (Drinking Styles Questionnaire) (Cooper, McCarthy, & Goldman, 1995), UPPS-P (Impulsive behavior scale) (Lynam et al., 2009), DMQ-R (Drinking Motives Questionnaire-Revised) (Coopers, 2000).
We conducted a series of hierarchical multiple regression analyses (according to Cohen et al., 2003) to test study hypotheses.
We conducted a mediational test with multiple regression in line with was suggested by MacKinnon et al. (2002).

RESULTS

Table 1: Predicting drinking quantity with negative urgency and coping motives

<table>
<thead>
<tr>
<th>Model Variable</th>
<th>$\beta$</th>
<th>SE of $\beta$</th>
<th>$t$</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Urgency</td>
<td>.422</td>
<td>.084</td>
<td>.239</td>
<td>.050</td>
</tr>
<tr>
<td>2 Urgency</td>
<td>.061</td>
<td>.081</td>
<td>.035</td>
<td>.555</td>
</tr>
<tr>
<td>Coping</td>
<td>.588</td>
<td>.055</td>
<td>.498</td>
<td>.281</td>
</tr>
</tbody>
</table>

Table 2: Predicting drinking quantity with positive urgency and enhancement motives

<table>
<thead>
<tr>
<th>Model Variable</th>
<th>$\beta$</th>
<th>SE of $\beta$</th>
<th>$t$</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Urgency</td>
<td>.449</td>
<td>.082</td>
<td>.258</td>
<td>.06</td>
</tr>
<tr>
<td>2 Urgency</td>
<td>.229</td>
<td>.068</td>
<td>.132</td>
<td>.497</td>
</tr>
<tr>
<td>Enhancement</td>
<td>.497</td>
<td>.033</td>
<td>.592</td>
<td>.474</td>
</tr>
</tbody>
</table>

DISCUSSION

Negative urgency, coping motives and alcohol:
When negative urgency was a significant predictor of drinking quantity
When coping motives were added to the analysis, coping motives fully mediated the relationship between negative urgency and drinking quantity

Positive urgency, enhancement motives and alcohol:
When positive urgency was a significant predictor of drinking quantity
When enhancement motives were added to the analysis, enhancement motives partially mediated the relationship between positive urgency and drinking quantity

Positive and negative urgency both lead to engagement in alcohol consumption, but they do so (partially or fully) through their effects on the social learning process.
These findings lead to more precise understanding of the development of risky alcohol use behaviors during the first year of college, a time period in which students are at a significant risk of increased risk-taking behaviors of clinical interest (Hingson, Heeren, Winter, & Wechsler, 2005; Wechsler, Moeykens, Davenport, Castillo, & Hansen, 1995) in part due to their leaving home (Budde & Testa, 2005).
These findings could inform identification of those at risk and the design of intervention and prevention programs in this population.

*Portions of this research and presentation were supported by NIH award AA013717 to Ayca Coskunpinar, and NIAAA award F31 AA016265 to Melissa Cyders.