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Psychological factors affecting hangover severity

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Background

Harburg et al. (1981,1993) reported that feeling guilty about drinking, and being depressed, angry or anxious while drinking were significantly associated with having more severe hangovers. Also, drinkers who scored higher on neuroticism and had experienced more recent negative life events had more severe hangovers. However, 23% of their sample reported no hangover, and the analysis were not corrected for estimated blood alcohol concentration. The current study aimed to verify and extend these observations in a sample of hungover drinkers.

Methods

A survey was held among N=323 young adults, 18 to 30 years old. Demographics, alcohol consumption and subjective intoxication, hangover severity, general health and perceived immune fitness, sleep quality and duration, and mood (both baseline in Fiji, and during drinking) were assessed with VAS scales, and neuroticism was assessed with the Eysenck personality questionnaire.

Results

No significant correlations of hangover severity with mood and stress (baseline or during drinking) were observed. However, hangovers are accompanied by mood changes such as increased acute levels of stress, fatigue, and feelings of guilt about drinking. A regression analysis revealed a model with 38.6% predictive validity including 'level of subjective intoxication' as best predictor of hangover severity (21.1%), followed by perceived immune fitness (5.7%). Other factors (fatigue, days in Fiji, weekly alcohol intake, sleep quality) contributed less than 5% to the model.

VARIABLES
Gender
Age
BMI
Weekly alcohol consumption
Days abroad
Days in Fiji
Work versus holiday
Perceived immune fitness (ISQ)
General health rating
Stress (baseline, during drinking, during hangover)
Anxiety (baseline, during drinking)
Depression (baseline, during drinking)
Anger, hostile (baseline, during drinking)
Being active (baseline)
Fatigue (baseline, during hangover)
Guilt about drinking (during hangover)
Neuroticism (baseline)
Number of alcoholic drinks consumed on drinking occasion
Estimated BAC (on drinking occasion)
Subjective intoxication (being drunk rating)
Number of cigarettes smoked (on drinking occasion)
Hours of sleep (after drinking occasion)
Sleep quality (after drinking occasion)

Harburg et al. 1993

Variables	Model	Contribution
Being drunk	21.1%	21.1%
Perceived immune fitness	26.8%	5.7%
Fatigue (baseline)	30.2%	3.4%
Days in Fiji	33.1%	2.9%
Weekly alcohol consumption	35.9%	2.8%
Sleep Quality	**38.6%**	2.7%

Conclusions
Mood during drinking does not significantly impact next day hangover severity.
However, the alcohol hangover state is accompanied by various mood changes and increased stress levels.

References

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