

Gender and Blackouts

- Females do not metabolize alcohol as quickly due to body weight, proportion of body fat, and levels of key enzymes. (White 2002, Dettler, 2009, Jones 2010). Water content varies from person to person. Obese individuals have less water per pound of body weight than individuals of average build because fat cells contain little water. Females tend to have a higher proportion of body fat than males. **About 68% of an average male's body weight is due to body water, while the percentage is 55% for average females.** In general, the heavier a person is, the greater the amount of alcohol that must be consumed to reach a specific alcohol concentration in the body.
- There is also evidence that females are more susceptible than males to milder forms of alcohol-induced memory impairments. (Mumenthler 1999).
- Binge drinking has a greater effect on memory encoding and retrieval for females. A recent study examined the effects of binge drinking in emotional episodic memory from a gender perspective. Intoxicated subjects aged 18-20 completed an emotional list-learning task. In females, binge drinking was associated with an emotional memory bias in favor of negative information and lower recall of positive and neutral words. In addition, females showed more false alarms for negative distractors. Whereas in males, no alcohol-related effects were found. The researchers concluded that young female binge drinkers had greater difficulties with *“negative memory bias, poor learning and delayed episodic recall linked to the interference of negative content, which suggests difficulties in disengaging attention to salient negative stimuli and a reduction of inhibitory capacities. This might result in greater vulnerability to alcohol-related emotional disturbances among women.”* (Carbia, 2020)

Research Abstracts Regarding Gender and Blackouts

Emotional memory bias in binge drinking women.

Carbia, C., Corral, M., Caamaño-Isorna, F., & Cadaveira, F. (2020).
Drug and alcohol dependence, 209, 107888.

Abstract:

Background: Heightened emotionality and overrepresentation of memories are typical features of adolescence. Binge drinking (BD) during emerging adulthood has been linked to cognitive difficulties such as deficits in episodic memory. Despite that impairments in emotional functioning have been associated with the development of alcohol use disorders, particularly in females, the emotional sphere has been relatively unexplored in BDs. Therefore, the purpose of this study is to examine the effects of BD in emotional episodic memory from a gender perspective.

Methods: One hundred and eighty (96 females) university students were followed during two years (18–20 years old) and their alcohol use was recorded. In the last assessment, participants completed an emotional list-learning task. Generalized linear mixed models were applied separately for males and females, in accordance with sex differences in the development of emotion circuitry.

Results: In females, BD was associated with an emotional memory bias in favour of negative information and lower recall of positive and neutral words. In addition, females BDs showed more false alarms for negative distractors. Whereas in males, no alcohol-related effects were found.

Conclusions: Female BDs present a negative memory bias, poor learning and delayed episodic recall linked to the interference of negative content, which suggests difficulties in disengaging attention to salient negative stimuli and a reduction of inhibitory capacities. This might result in greater vulnerability to alcohol-related emotional disturbances among women. Further research is needed to understand the role of emotional regulation in the escalation of alcohol abuse from a gender perspective.

Gender differences in the epidemiology of alcohol use in the United States.

White, Aaron M.

Alcohol Research: Current Reviews, Vol 40(2), 2020. pp. 1-13.

Abstract:

Over the past century, differences in alcohol use and related harms between males and females in the United States have diminished considerably. In general, males still consume more alcohol and experience and cause more alcohol-related injuries and deaths than females do, but the gaps are narrowing. Among adolescents and emerging adults, gaps in drinking have narrowed primarily because alcohol use among males has declined more than alcohol use among females. Among adults, alcohol use is increasing for women but not for men. Rates of alcohol-related emergency department visits, hospitalizations, and deaths all have increased among adults during the past two decades. Consistent with the changing patterns of alcohol use, increases in these outcomes have been larger for women. Recent studies also suggest that females are more susceptible than males to alcohol-induced liver inflammation, cardiovascular disease, memory blackouts, hangovers, and certain cancers. Prevention strategies that address the increases in alcohol consumption and unique health risks for women are needed.