

**THE UNDER-EXPLORED ROLE OF TIREDNESS IN
ALCOHOL USE AND SEXUAL RISK-TAKING AMONG GAY AND BISEXUAL MEN**

by

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Abstract

Numerous factors have been shown to increase the likelihood of risk-taking in the realms of alcohol use and sexual behavior— and many studies have focused on these behaviors among gay and bisexual men (GBM), given the health disparities that exist in substance use and HIV/STI infections. After a brief review of the person- and situation-level variables that have already been identified, I will argue for the relevance of also considering a previously under-explored situation-level factor in alcohol use and sexual risk-taking: sleep-related fatigue, referred to here as tiredness. While tiredness has been shown, in the sleep science literature, to impair cognition, emotion, and decision-making in a wide range of behaviors and tasks, it has yet to be considered in-depth as a risk in the realms of alcohol and sexual behavior. The role of tiredness has only received scant attention in alcohol use research as either a consequence of intoxication or a global person-level characteristic. Aside from a small number of studies on adolescent drinking, the situational influence of tiredness on alcohol use decisions and behaviors has been largely neglected. Tiredness has been even more neglected as a risk factor in relation to sexual risk-taking—perhaps due, in part, to the assumption that being tired would impede the performance of active, effortful behaviors such as drinking and having sex. However, it will be argued that, exempting severe exhaustion, more moderate levels of tiredness may actually *increase* the

likelihood of engaging in alcohol use or sex via two pathways: one in which tiredness impairs self-regulation and thus raises the odds of engaging in a behavior, given sleep science evidence showing that tiredness peaks at night and given studies suggesting that most alcohol use and sexual behavior occur at night, and; one in which tiredness may actually motivate desire for the behavior. The evidence reviewed generates a rubric of three questions that are applied here to alcohol use and sexual risk-taking among GBM (and perhaps to other risk-taking behaviors and in other populations): (1) when does the behavior occur? (2) might tiredness be motivating the behavior? and (3) are there event-level associations between sleep quality and the behavior? This dissertation analyzed three separate datasets—a brief online survey of 2,814 GBM recruited from online sites and apps, a more detailed online survey of 1,113 HIV-negative GBM, and a daily diary study of 52 HIV-positive GBM—to provide evidence in response to each of the three questions, applied to the two behaviors in turn. Both alcohol use and sex with casual partners was found to most commonly occur at night, with differences according to age and chronotype; and tiredness was shown to motivate alcohol use (both with and without energy drink mixers) and sexual desire, as well as increasing the likelihood of engaging in receptive positioning in anal sex. However, event-level associations between sleep quality and subsequent alcohol use or sexual behavior were not observed. These findings highlight the importance of considering tiredness as a risk factor associated with alcohol use and sexual risk-taking among GBM, with evidence indicating that tiredness impairs self-regulation while simultaneously motivating both behaviors.