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"The Associations of Stigma and Alcohol Use in an Alcohol Environment among People with HIV."

Background: Increasing rates of alcohol intake have led to negative health consequences among people with HIV (PWH) such as expediting the progression of the virus and the adherence to antiviral therapy. Research has shown that stigma which is the negative perception that individuals in a society stimulate to implement false information onto one's mind is highly associated with the misuse of alcohol. Although there have been numerous studies focused on the association between stigma and alcohol use, the contribution of alcohol outlet environment have not been associated with stigma and alcohol misuse. We hypothesized that stigma increases the use of alcohol in low socioeconomic neighborhoods among PWH.

Methods: For this study, data was analyzed from the New Orleans Alcohol Use in HIV (NOAH) Study. The study population included 390 HIV infected participants aged eighteen or older. The exclusion criteria included the following: acute illness within the last 6 weeks as defined by unscheduled healthcare utilization for a new or exacerbated illness, non-prophylaxis prescription of antibiotics, or pregnancy. Stigma measures were accessed through the HIV Stigma Measure questionnaire, which had 40 questions, including subscales of personalized stigma, disclosure stigma, and negative self-image stigma. Alcohol use was measured using the Alcohol Use Disorders Test (AUDIT: ≥8 = risk of alcohol misuse), the Timeline Followback (TLFB: >3 or 4 drinks per day for women/men in the past 30 days), and blood levels of Phosphatidylethanol (PEth). Alcohol environments were accessed using the total number of on-site (restaurants and bars) and off-site alcohol outlets (convenience and liquor stores). Spearman rank-correlations and multi-level logistic regression models were used to analyze the effects of stigma and on alcohol misuse and the modification by alcohol outlet density. Models were adjusted for age, race, sex, and education.

Results: This study consisted of females (68%), African Americans (84%), with an average age 48 years old (STD ±10.37).   Participants had a rate of 2.3 ±3.7 total alcohol outlets per 1,000 with mean of 65.2 (STD ±81.0) total alcohol outlets within 1 of a mile from their home. The mean stigma score for the female population was 105.80 (±17.02) whereas in the male population the stigma mean score was 99.56 (±17.01). The mean of the personalized stigma among the female population was 59.24 (±10.32) whereas in the male population it was 3.05 (±9.75). Total stigma and personalized stigma were shown to be associated and have a 3% increase odds of alcohol misuse while status discourse stigma had a protective association for alcohol misuse.

Conclusion: We found that social and environmental measures co-influence the association of HIV stigma and alcohol misuse. Additional social determinants were used to show the influence between the association of stigma and alcohol use. We plan to continue to further explore the data and provide additional insight for observing the interaction and impact of environment measures and alcohol misuse among PWH.