Mental Health and Alcohol Use in People With and Without HIV Before and During COVID-19

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BACKGROUND

- Increases in the prevalence of mental health symptoms during global pandemics have been observed.[1]
- We hypothesized that people with HIV (PWH) and without HIV (HIV-) would experience an increase in mental health symptoms and alcohol use after the onset of the COVID-19 pandemic and that PWH would experience a greater increase than HIV- individuals.

METHODS

- Participants were recruited from two established cohorts of PWH and HIV- adults in Omaha, Nebraska
- Baseline data including mental health and alcohol use assessments were collected prior to the pandemic utilizing the Beck Depression Inventory- II (BDI-II), Beck Anxiety Inventory (BAI), Alcohol Use Identification Test (AUDIT), and Pittsburg Sleep Quality Index (PSQI). Participants were excluded from the original cohorts if they had any known psychiatric diagnosis or were taking antipsychotics or anticonvulsants.
- Participants were reassessed between February and April 2021.
- All outcomes were evaluated using generalized linear mixed models.

RESULTS

- Of the 95 participants who completed all questionnaires, 50 were PWH and 45 HIV-. Groups did not statistically differ in age, sex, race or ethnicity (overall mean age: 45.7 years; 69.5% male; 74% non-Hispanic white)
- Pre-pandemic mean BDI-II, BAI, AUDIT, and PSQI scores were higher in PWH versus HIV-.
- After the onset of the pandemic, mean BDI-II and AUDIT scores increased significantly in both groups (Table 1, Figure 1; p<.001 and p =0.003, respectively) and AUDIT scores were significantly higher in males than females (p=.002).

Screening for symptoms of mental health and alcohol use is critical during a pandemic, *especially in people with HIV*.

Table 1 Measures of Depression and Alcohol Use Pre- and Intra-Pandemic

Depression	Pre-pandemic (0) vs Intra-pandemic (1)					
	All (0)	All (1)	PWH (0)	PWH (1)	HIV- (0)	HIV- (1)
BDI-II score, mean (sd)	4.9 (5.3)	7.1 (7.5)	6.0 (6.2)	8.0 (8.5)	3.8 (3.9)	6.2 (6.0)
Minimal to mild depressive sx[a], n (%)	91 (96)	88 (93)	46 (96)	44 (88)	45 (100)	44 (98)
Moderate to severe depressive sx[b], n (%)	4 (4)	7 (7)	4 (8)	6 (12)	0 (0)	1 (2)
Alcohol use	Pre-pandemic (0) vs Intra-pandemic (1)					
	All (0)	All (1)	PWH (0)	PWH (1)	HIV- (0)	HIV- (1)
AUDIT score, mean (sd)	3.7 (3.1)	4.3 (3.9)	4.0 (3.7)	4.9 (3.9)	2.9 (2.8)	3.7 (3.9)
Binge drinking[c], n (%)	11 (12)	14 (15)	6 (12)	9 (18)	5 (11)	5 (11)
Alcohol misuse[d], n (%)	38 (40)	49 (52)	23 (46)	28 (56)	15 (33)	21 (47)

a. A score of ≤18 on the BDI-II
b. A score of >18 on the BDI-II
c. "Monthly or more" consumption 6 or more drinks on one occasion on the AUDIT tool
d. A score of ≥ 4 for males and ≥ 3 for females on the AUDIT tool
e. Abbreviations: sx = symptoms

- Measures of binge drinking and alcohol misuse as well as mean BAI and PSQI scores increased numerically intra-pandemic.
- Intra-pandemic mean BDI-II and AUDIT scores increased more among HIV– then PWH, but not significantly so.
- The percentage of PWH and HIV- participants who moved into a more severe category of depression as measured by the BDI-II (e.g., from minimal to moderate) after the onset of the pandemic was identical (18%).

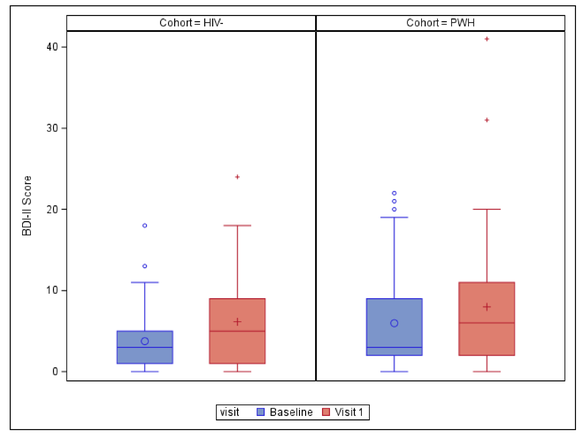


Figure 1. After the onset of the pandemic, mean BDI-II scores increased significantly for both groups (p<.001).

CONCLUSIONS

- Measures of depression and alcohol use increased significantly after the onset of COVID-19 pandemic in people with and without HIV.
- Although there were no significant differences in changes between the groups, PWH had higher baseline scores so the increases in this group may have more clinical impacts.
- Screening for symptoms of mental health and alcohol use is critical during a pandemic, especially in PWH.
- Future work will explore the longer-term impact of the pandemic on mental health symptoms and alcohol use.

REFERENCES

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