

Characteristics of Individuals with Significant Depressive Symptoms among People Living with HIV in British Columbia

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Background

- Depressive symptoms are one of the most common psychological symptoms associated with people living with HIV (PLWH)¹.
- Clinical depression has been associated with worse health outcomes, HIV progression, and increased mortality among PLWH².
- Using the validated **10-item Center for Epidemiologic Studies Depression Scale (CES-D 10)**³, we identified prevalence and characteristics of baseline depressive symptoms in a cohort of PLWH in British Columbia (BC).

1) Gonzalez, J. S., Batchelder, et al. (2011). Depression and HIV/AIDS Treatment Nonadherence: A Review and Meta-analysis <https://doi.org/10.1097/QAI.0B013E31822D490A>

2) Rabkin, J. G. (2008). HIV and depression: 2008 review and update. <https://doi.org/10.1007/s11904-008-0025-1>

3) Zhang, W., O'Brien, N., Forrest, J. I., Salters, et al. (2012). Validating a Shortened Depression Scale (10 Item CES-D) among HIV-Positive People in British Columbia, Canada. <https://doi.org/10.1371/journal.pone.0040793>



Methods

- Between January 2016 and September 2018, we used purposive sampling to enroll PLWH aged ≥ 19 who reside in BC in the [STOP HIV/AIDS Program Evaluation \(SHAPE\) study](#) (n=644).
- **CES-D 10**: 10-item self-reported measure of individual's depressive feelings in the past week.
 - Score ≥ 10 : presence of significant depressive symptoms³.
- Chi-square, Fisher's Exact test or Wilcoxon Rank Sum test was used to test the association between key demographic groups and CES-D 10 scores ≥ 10 .
- Multivariable logistic regression modelled whether key demographic groups were associated with depressive symptoms.

Results

- Of 644 participants who completed the baseline survey, 627 participants completed the full CES-D 10
 - 310 (49.4%) had a CES-D 10 score ≥ 10 , 134 (21.4%) were female, 130 (20.7%) reported injection drug use in the past year, 371 (59.2%) identified as MSM.
- The variables included in the final multivariable model are highlighted in red in **Table 1**.
 - Other variables including gender, education, IDU, homelessness were included but not selected in the final model.

Variable	aOR (95% CI)	Variable	aOR (95% CI)
Age at interview		Food sufficiency	
Less than 40	1.0	Sufficient/Sufficient but not diverse	1.0
40 to 49	1.02 (0.61-1.71)	Insufficient and not diverse	2.00 (1.27-3.16)
50 to 59	0.76 (0.47-1.24)	Mental health diagnosis ever	
60 or more	0.52 (0.28-0.94)	No	1.0
Personal annual gross income		Yes	2.51 (1.72-3.66)
Less than 15000	1.0	Violence ever	
15000 to 29999	0.51 (0.34-0.78)	No	1.0
30000 to 59999	0.59 (0.35-1.00)	Yes	1.78 (1.15-2.76)
60000 or more	0.49 (0.27-0.90)		

Table 1: Multivariable logistic regression modelling the probability of CES-D 10 scores ≥ 10



Conclusion

- Food insufficiency, ever having a mental health disorder diagnosis, and experiences of lifetime violence were positively associated with depressive symptoms.
- Ages ≥ 60 and higher personal gross income were negatively associated with depressive symptoms
- Identifying key characteristics associated with depressive symptoms can help screen for depressive symptoms earlier and strengthens previous research linking depression in PLWH specifically to a population in BC

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