Diagnostic Accuracy of the BDI-II and its Relationship to Direct-Acting Antiviral Adherence: Implications for Hepatitis C treatment Among People Who Inject Drugs on Medications for Opioid Use Disorder

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INTRODUCTION

Depression is overrepresented among people who inject drugs (PWID) and those infected with the hepatitis C virus (HCV) (28.7% and 29.3%, respectively). 1,2 When treating HCV with early interferon-based regimens, depressive symptoms were exacerbated and associated with poor adherence and treatment failure. Thus, having a major depressive disorder (MDD) or other depressive diagnoses was considered a contraindication to interferon-based regimens. 3

The advent of highly effective direct-acting antiviral (DAA) regimens with shorter treatment periods and fewer side effects has revolutionized antiviral (DAA) regimens with shorter treatment periods and fewer side effects. Thus, having a major depressive disorder (MDD) or other depressive diagnoses was considered a contraindication to interferon-based regimens. 3

AIMS

The primary aim of the current study was to test the association between both MDD diagnosis and depressive symptoms measured by the BDI-II and adherence to DAAs among a sample of HCV-infected PWID on MOUD. A secondary aim was to examine the diagnostic accuracy of the BDI-II as a screening tool for MDD.

METHODS

Secondary analyses of a randomized clinical trial (PREVAIL; NCT01857245) 4 evaluating the effectiveness of 3 models of HCV care among PWID on MOUD.

PARTICIPANTS

141 HCV-infected PWID

Inclusion criteria:

✓ ≥ 18 years old
✓ Currently receiving MOUD
✓ HCV genotype 1

RESULTS

➢ A negative association between BDI scores at baseline and adherence rates weeks 1 through 4 (p=.004) was found.
➢ No association between BDI scores at weeks 4, 8, and 12 and adherence rates between weeks 4 and 12 was found.
➢ No association was found between MDD at baseline and adherence rates though the 12 weeks of treatment

DISCUSSION

➢ Only higher depressive symptoms at baseline were associated with lower adherence rates during the first 4 weeks of treatment. Depressive symptoms during weeks 8 to 12 or MDD at baseline were not associated with poor adherence.
➢ Neither depressive symptoms nor MDD diagnosis should be used as justification to withhold treatment for HCV among PWID
➢ Utilizing a specific BDI cutoff score for HCV-infected PWID would allow us to accurately identify those PWID with depression.

MEASURES

• Sociodemographics: Age, gender, education, income
• Depressive symptoms: Beck depression Inventory (BDI-II)
• MDD diagnosis: The MINI was used as the gold standard.
• DAAs adherence: electronic blister packs that captured and recorded the time and date upon pop-up of a blister for a medication retrieval.

DATA ANALYSES

Receiver operating characteristic (ROC) curve and area under the curve (AUC) via the non-parametric method was conducted. BDI-II’s optimal cut-off value was determined by visually inspecting the AUC. Association between adherence and both BDI and MDD was tested using various linear regressions.

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REFERENCES

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