

# Improving usage of PHQ-9 to increase depression screening among HIV patients.

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## Introduction and Background

- Depression is highly prevalent among HIV patients (20-40%) and is associated with negative health outcomes.
- It is underrecognized and undertreated by healthcare providers.
- Current HIV guidelines recommend depression screening at least annually and as needed using the PHQ-9.
- The HIV clinic had no standardized tool and protocol to screen patients for clinical depression, and PHQ-9 was not embedded in the EHR.
- Most HIV providers at the site screened patients verbally.

## Purpose and Aims

The purpose of this project was to assist a city HIV clinic standardize depression using the PHQ-9 screening tool and to integrate and sustain a depression screening protocol.

**Aim 1:** To increase clinic staff's knowledge and attitudes on depression screening through an educational intervention.

**Aim 2:** Increase identification and treatment of depressed patients through usage of PHQ-9 and developing a depression screening protocol.

## Methods

**Design:** a pre- and post-intervention quality improvement project implemented over 12-week period.

**Setting:** Infectious disease outpatient HIV clinic located in an urban Health Department in the Mid-Atlantic

**Sample:** 8 HIV clinic staff (NPs, RNs & advocates).

**Intervention:** Power point educational module on depression and HIV delivered via email to participants

## Results

Table 1.

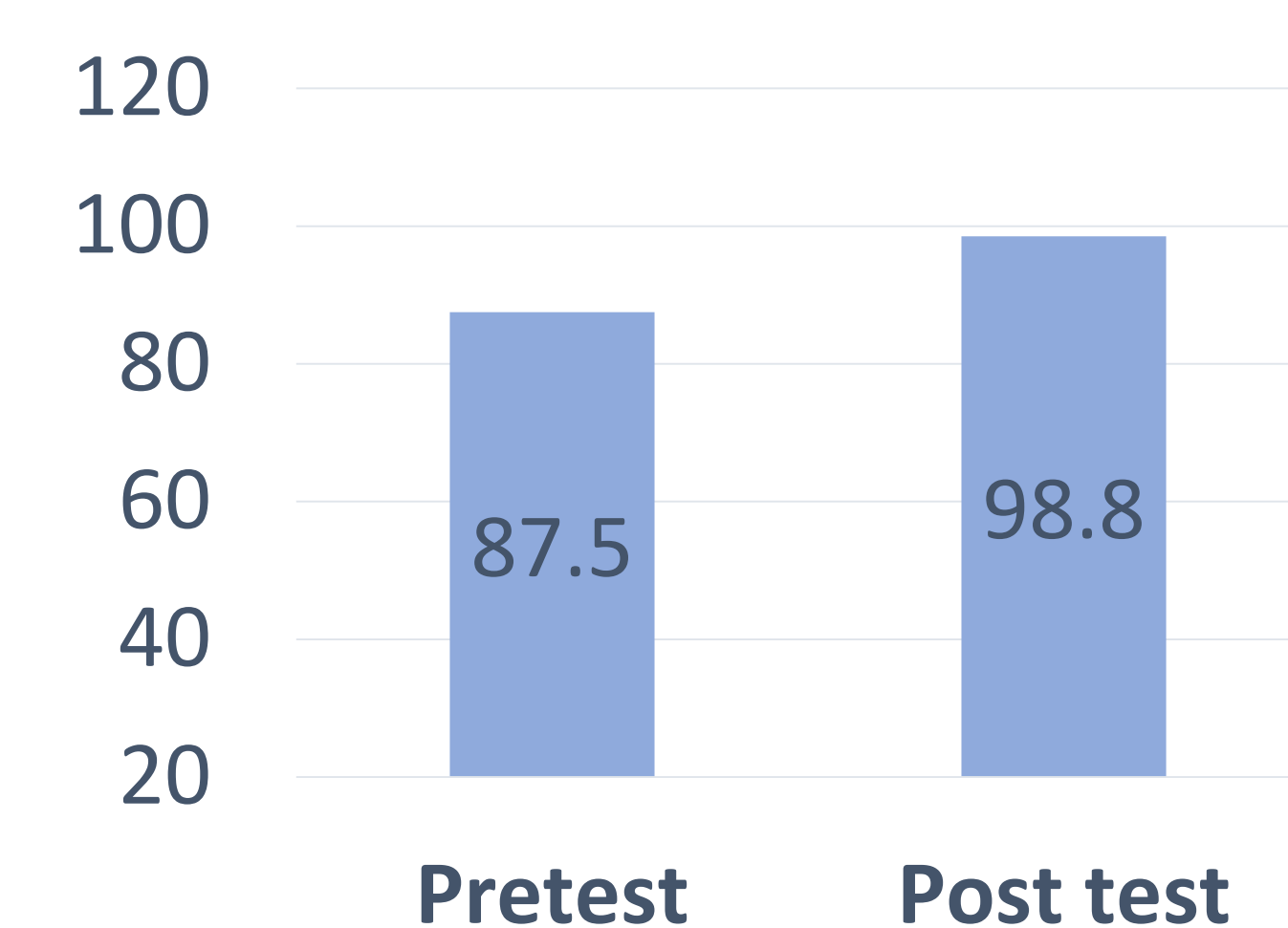
Demographic Characteristics	N=8
Sex n (%)	
Male	2 (25.0)
Female	6 (75.0)
Years of practice (Mean, SD)	10 (3.96)
Title/Role n (%)	
Patient advocates	3 (37.5)
Registered Nurses	2 (25)
Nurse Practitioners	3 (37.5)

### Aim 1:

#### a) Knowledge- pre and posttest scores

Results from Wilcoxon Signed Rank Test: Scores increased from **87.5%** to **98.8%**, an **11.3%** increase and a **p > .0067**.

Fig. 1 Pre & Post test scores



#### b) Attitudes scores

The R-DAQ showed an overall positive attitude towards depression with a **Cronbach's alpha value of .841**.

Scores showed **66% professional confidence**, **79% on optimism** about depression treatment and **80 %** showed positive **general perspective** on depression.

### Aim 2:

Retrospective chart review (**N=50**) revealed **6%** usage of PHQ-9 pre intervention vs **54%** post intervention.

	Pre-intervention	Post intervention
Charts reviewed	N=50	N=50
PHQ - 9		
Total screened	3 (6 %)	27 (54 %)
(+) PHQ-9	1	12 (44%)
(-) PHQ-9	2	15 (56%)
Depression severity		
Mild (PHQ-9: 5-9)		2 (17%)
Moderate (PHQ-9:10-19)	1	8 (66 %)
Severe (PHQ-9: 20-27)		2 (17%)
Treated/Referred (n=11)	1	7 (58%)

- Depression screening increased by **48%** with a Pearson Chi square significance of **.650**.
- Depression positivity rate was **44 %** and referral/ treatment rate **58 %**.
- **42%** of patients with depression were neither treated or referred.
- Documentation of PHQ-9 scores incorporated in the EHR
- A depression screening protocol was developed and will be sustained to guide and standardize screening at the site.

## Conclusions

- Early identification of depression among PLWHA enhances timely treatment and limits the negative impact of depression on patient outcomes
- Depression screening by use of a valid standardized tool (PHQ-9) in HIV care can improve identification and management of depressed patients in HIV settings.
- Developing and adhering to a screening protocol can standardize care among providers and ensure accurate diagnosis, effective treatment, and appropriate follow-up of patients.

**References available upon request.**