Disentangling Roles of Internalized Stigma and Depression in Women's Linkage to Care

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Background and Significance

Postpartum depression (PPD) among women with HIV has negative consequences for both mother and infant. Linkage to HIV care may improve mental health outcomes by reducing depression and internalized stigma. However, the role that stigma reduction plays in reducing depression remains unclear.

Objectives

1) To investigate the relationship between linkage to HIV care, PPD, and internalized stigma in newly diagnosed, HIV-positive pregnant women in rural sub-Saharan Africa.
2) To examine the relationships between ART vs. Pre-ART treatment, stigma, and depression

Methods

Setting: Eight antenatal clinics in rural Nyanza Province, Kenya.

Sample: 135 pregnant women newly diagnosed with HIV

Methods: Participants were interviewed during pregnancy and subsequently six weeks after delivery (follow-up interviews).

Measures

- Linkage to Care: Documented enrollment in an HIV care program obtained though clinic enrollment records
- PPD: Edinburgh Postnatal Depression Scale, (EPDS)
- Stigma: Self-stigma subscale of HIV/AIDS Stigma Instrument–PLWA (HASI-P)

Statistical Analysis:

- Generalized estimating equations (GEE)
- Exploratory mediation analyses (ml_mediation)

Results

Linkage to HIV care and PPD:

- Women who had not linked to HIV care had higher levels of depression compared to women who had linked to care.

Linkage to HIV care and Internalized Stigma:

- Linkage to HIV care was a significant predictor of internalized stigma. Women who had not linked with HIV care had higher levels of stigma at the time of the postpartum interview, compared to women who had linked to care.

The Mediating Role of Stigma:

- Significant indirect effect of linkage to HIV care on depression, mediated by stigma (coefficient = -.61, p < .05, 95% bias-corrected confidence interval = -1.22 to -.11).

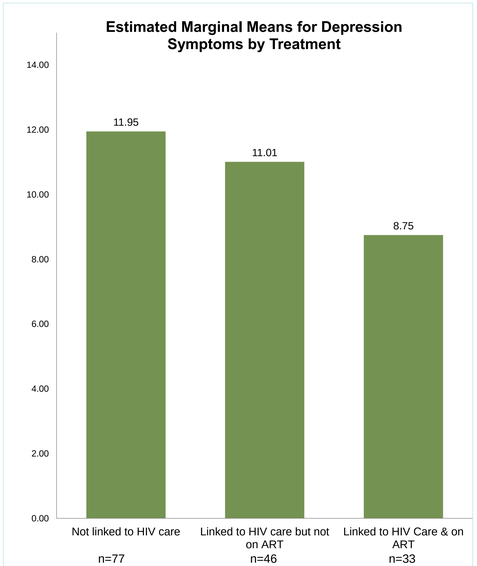
Generalized Estimating Equations Analysis Predicting Depression and Stigma (n = 135).

	DV = Post Partum Depression	DV = Internalized Stigma	DV = Post Partum Depression
Variable	***Unstandardized B (Std. Error)***	***Unstandardized B (Std. Error)***	***Unstandardized B (Std. Error)***
Age	.08 (0.14)	0.02 (0.02)	0.03 (0.10)
Marital Status (Ref: Not currently married)			
Currently married	-0.01 (0.94)	0.05 (0.21)	-0.15 (0.48)
Educational Level (Ref: More than primary)			
Primary or less	-1.82 (1.76)	-0.43 (0.33)	-0.57 (0.85)
Mobile phone ownership (Ref: yes)			
No	-.59 (1.05)	-0.12 (0.07)	-0.24 (0.92)
Pre/Post-partum intimate partner violence (Ref: None)			
Yes	**4.67 (0.84) *** **	**0.35 (0.14)** **	**3.67 (0.87)*** **
Unknown	**2.26 (0.77) ** **	**0.26 (0.16)***	**1.50 (0.51)** **
Infant health problems after birth (Ref: No)			
Yes	**3.47 (0.72)*** **	0.15 (0.13)	**3.03 (0.83)*** **
Number of births	**-0.66 (0.28)** **	**-0.10 (0.05)***	-0.38 (0.23)
Family knows about HIV status (Ref: Yes)			
No	**1.35 (0.66)***	**0.37 (0.19)***	-0.28 (0.88)
Spousal communication about birthplace (Ref: No)			
Yes	**-2.31 (0.61)*** **	**-0.25 (0.12)***	**1.60 (0.43)*** **
Linked to care (Ref: No)			
Yes	**-1.85 (0.91)***	**-0.34 (0.15)***	-0.86 (0.713)
HASI-P internalized HIV-related stigma	--	--	**2.88 (.570)*** **

*$p \leq .05$; **$p \leq .01$; ***$p \leq .001$

The Role of ART:

Those "not linked to HIV care" and "linked but not on ART" had significantly more PPD symptoms than those "linked and on ART" (p = .02 and p = .01, respectively)



Conclusions

- HIV-positive pregnant women who linked with HIV care had significantly lower levels of depression symptoms at postpartum, compared to HIV-positive women who did not link with HIV care.
- Linkage to HIV care results in reductions in internalized HIV-related stigma, which in turn help to prevent postpartum depression.
- ART seems to be an important component of the effect of HIV care on depression, with depression levels lowest in women who were both linked to HIV care and on ART.

Linkage to HIV care, especially when combined with ART, and associated reductions in internalized stigma, may help to prevent PPD among pregnant and postpartum women living with HIV. Thus, along with other health benefits, these interventions may help to protect the mental health of pregnant and childbearing women in sub-Saharan Africa.

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