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ADHERENCE



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# ASSOCIATION BETWEEN INTERNALIZED HIV STIGMA AND VISIT ADHERENCE: DOWNSTREAM EFFECTS ON ART ADHERENCE

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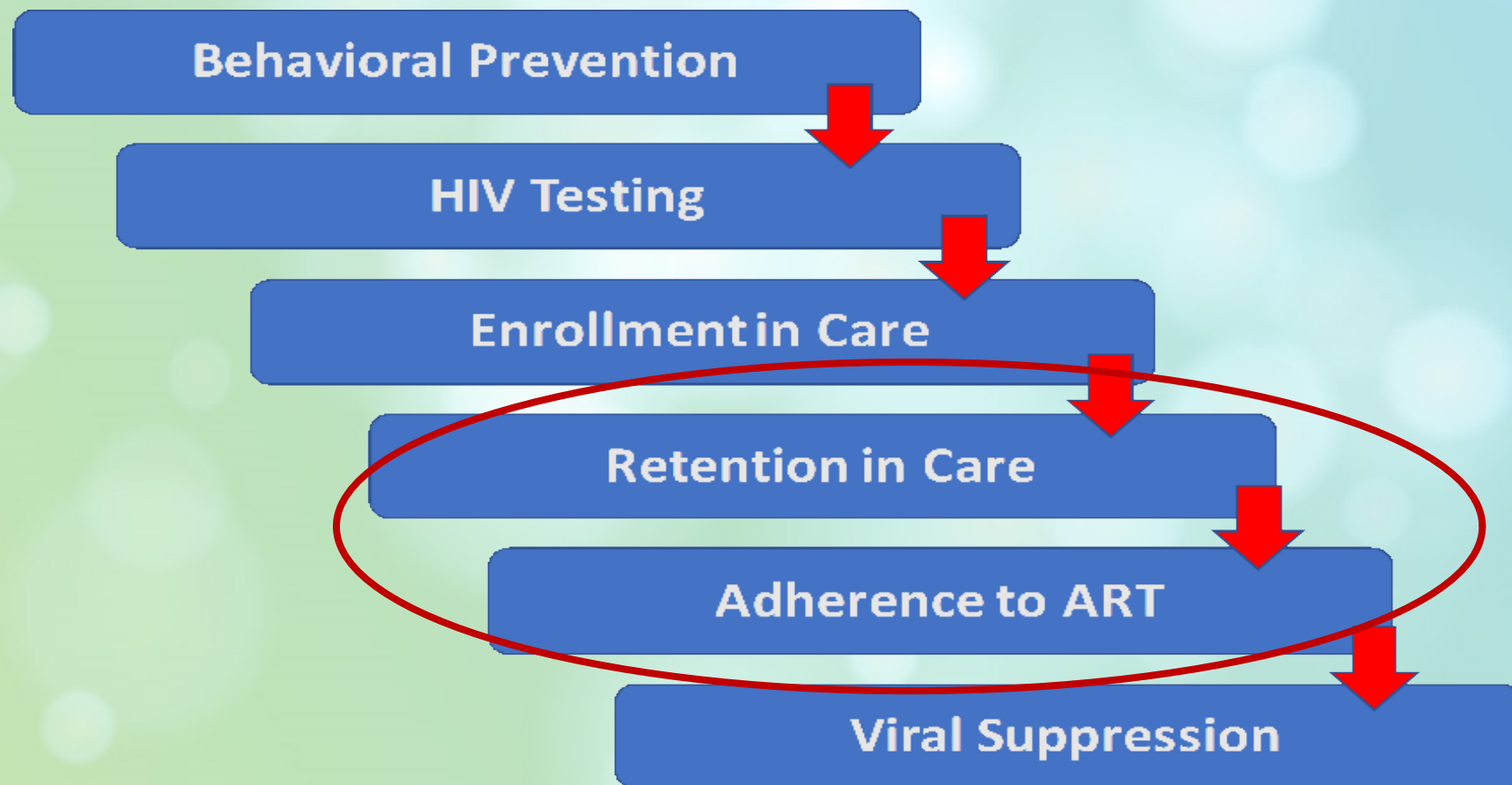
# HIV-related stigma

- is *negative social evaluation* based on a person's (real or perceived) HIV-status
- threatens a person's social status
- can cause stress and have other social, psychological, and health consequences for people living with HIV





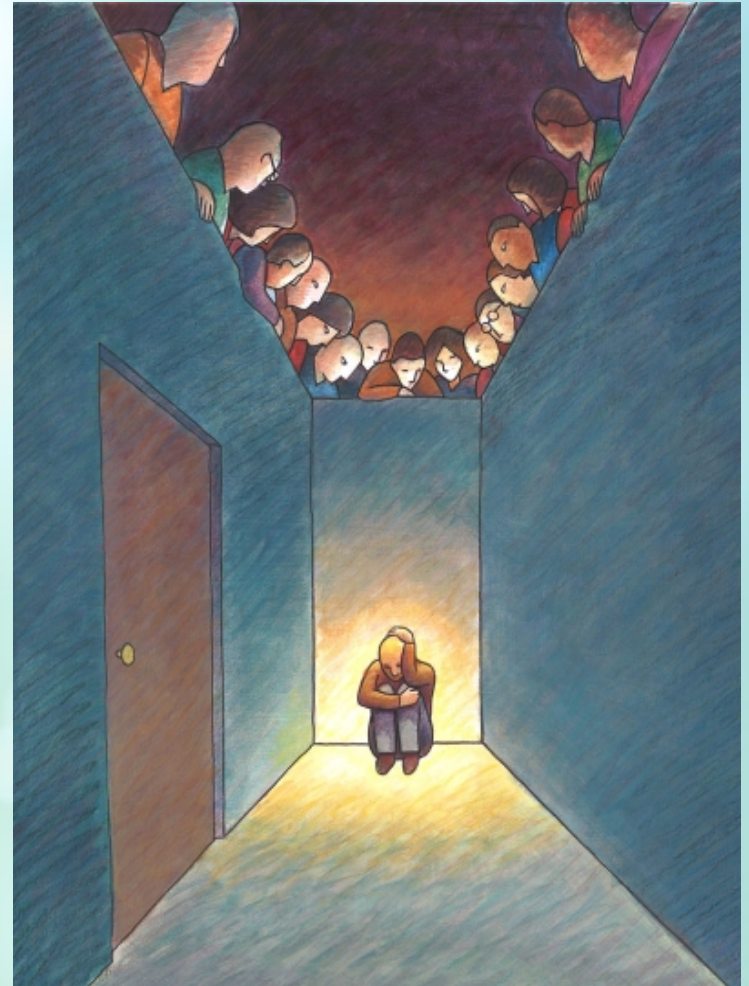
# Series of steps required to reduce HIV transmission





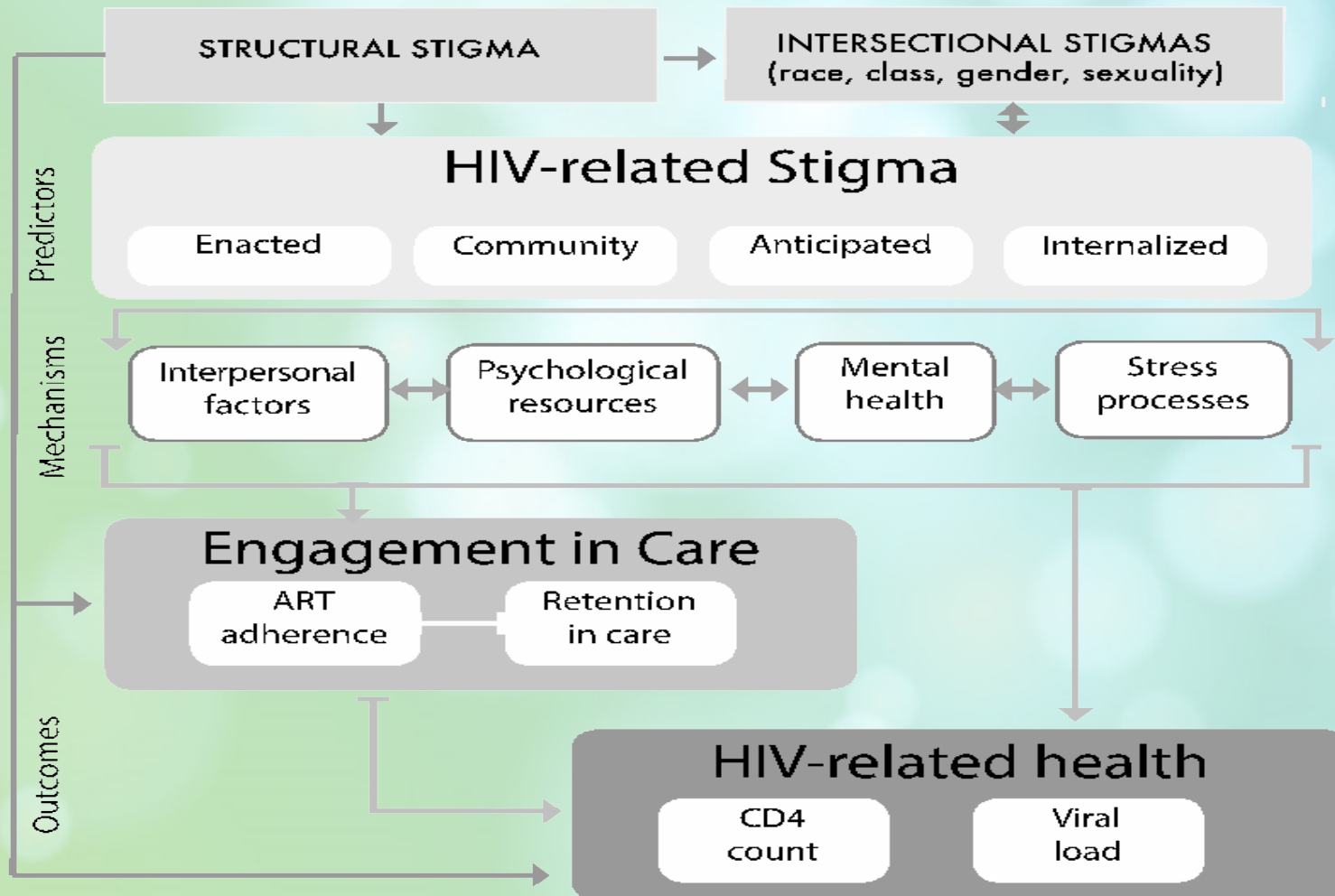
# HIV-related stigma and treatment adherence

- A systematic review and meta-synthesis of 75 studies conducted globally reported:
  - HIV stigma and ART non-adherence were associated in 24 cross-sectional studies.
  - HIV stigma undermined ART adherence by compromising coping, social support and other psychosocial factors in 34 qualitative studies.





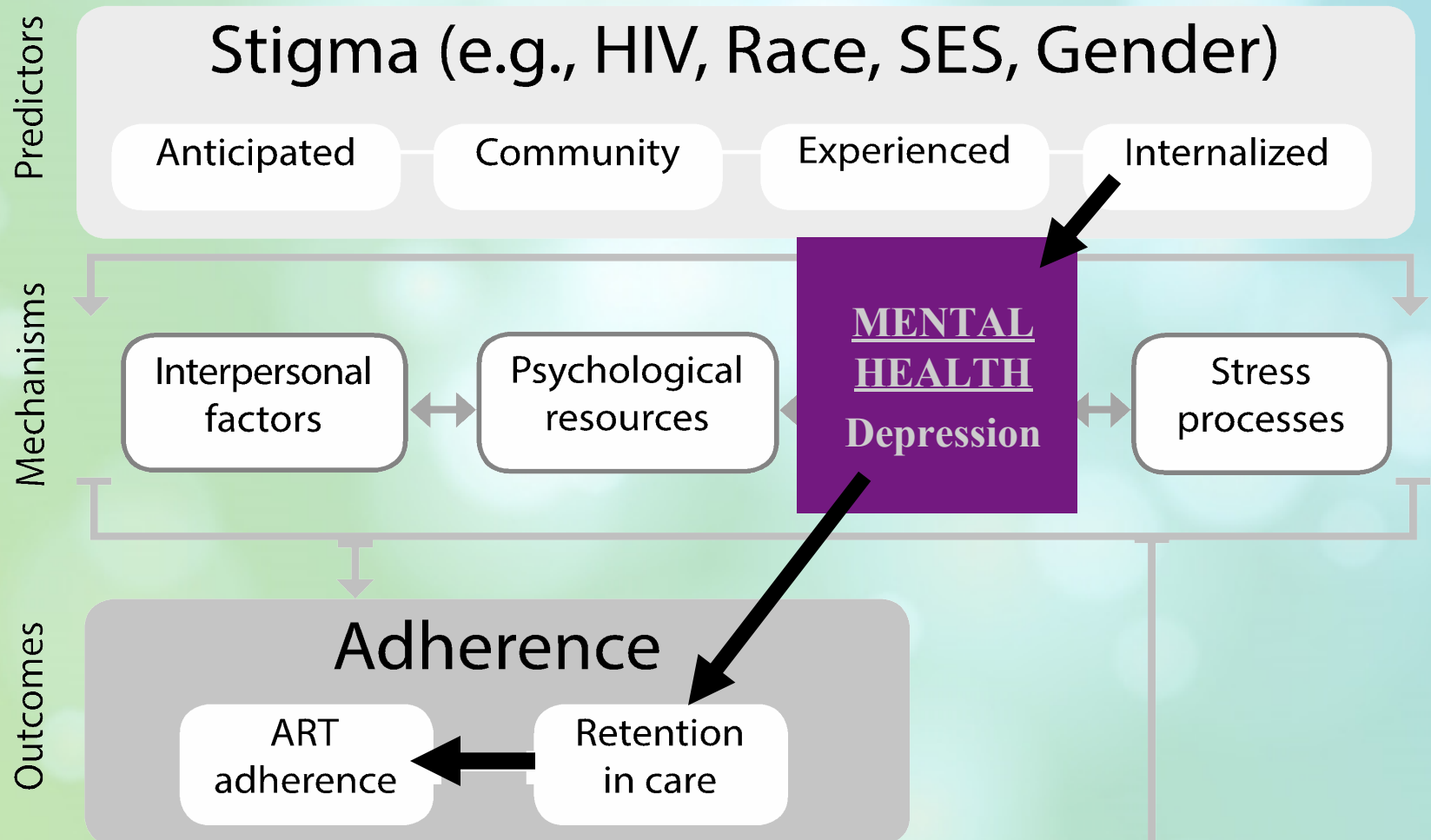
# Conceptual Framework







# Current Hypothesis





# Methods – Data Collection

- **Participants:** 196 patients from the UAB 1917 clinic
- **Inclusion criteria:** use of ART and substance non-use
- **Independent variable:**
  - Internalized stigma: 7-item negative self-image subscale of the revised HIV Stigma Scale (Berger, 2001); Sample item - “I feel I’m not as good as others because I have HIV/AIDS.”
- **Potential mediator:**
  - Depressive symptom severity: The 9-item Patient Health Questionnaire (PHQ)-9
- **Outcome measures:**
  - Visit adherence: extracted from clinic record, proportion of attended out of total scheduled visits
  - ART adherence: self reported, dichotomized at excellent vs. all other response options





# Methods – Statistical Analysis

- Multiple regression analysis to assess the association between internalized stigma and visit adherence
- Using bootstrapping with Process, we tested the following indirect effects:
  - The mediating role of depressive symptoms in the association between internalized stigma and visit adherence
  - The mediating role of visit adherence in the association between internalized stigma and ART adherence
- The following demographic and clinical variables were included as covariates in all analyses:
  - Age, gender, race, socioeconomic status, and duration on ART



**Table 1. Descriptive Statistics for the Study Sample**

Variable	n (%)	
<b>Race</b>		
White	72 (36.7)	
Black	124 (63.3)	
<b>Gender</b>		
Male	124 (63.3)	
Female	72 (36.7)	
<b>Medication adherence</b>		
Excellent	128 (71.5)	
Less than excellent	51 (28.5)	
	Mean (SD)	Range
Age (years)	44.90 (11.02)	—
Months on ART	96.36 (63.09)	—
Internalized HIV-related Stigma	1.98 (0.67)	1 - 4
Depressive symptom severity	3.66 (4.73)	0 - 27
HIV visit adherence	0.89 (0.16)	0 - 1



# Visit Adherence

- Higher internalized stigma was associated with lower visit adherence

$B = -0.04, SE = .02, t = -2.06, p = .04$

(controlling for sex, race, age, SES, time on ART)

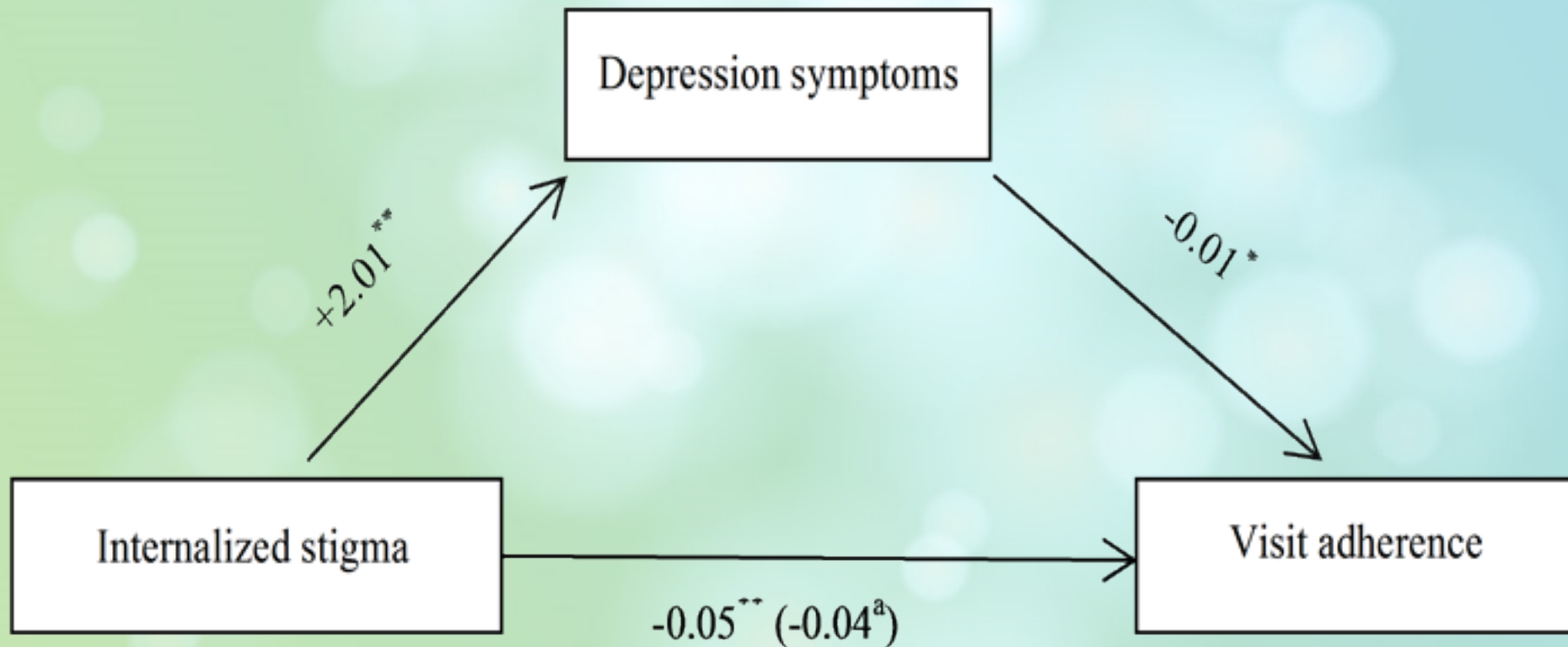
- Race and depressive symptoms were associated with visit adherence

Black PLWH had lower visit adherence than white PLWH ( $B = -0.08, SE = .03, t = -0.22, p < .01$ ).

Depressive symptoms negatively predicted visit adherence ( $B = -0.01, SE = .00, t = -2.09, p = .04$ ).



# Mediating role of depression

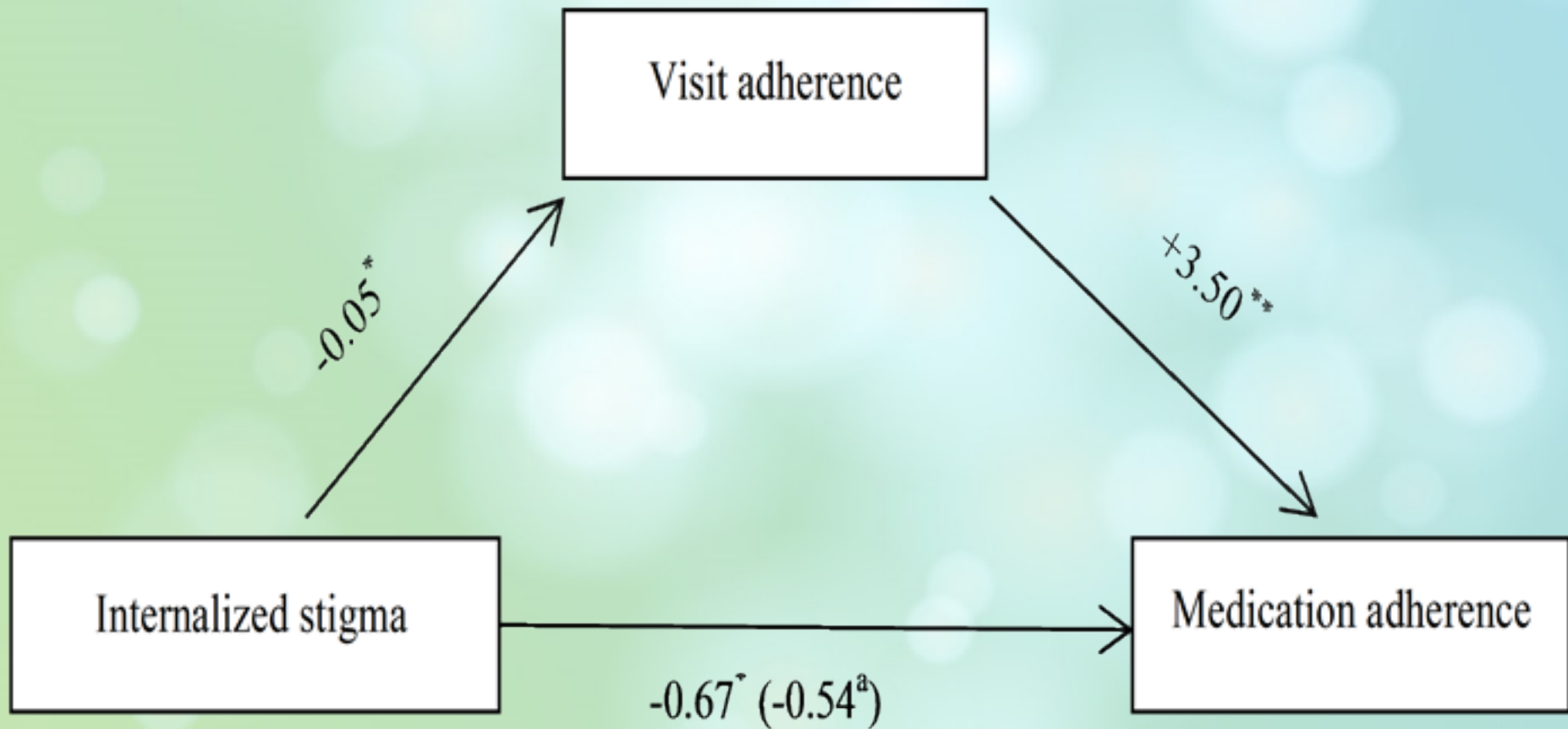


\*  $p < .05$ ; \*\*  $p < .01$





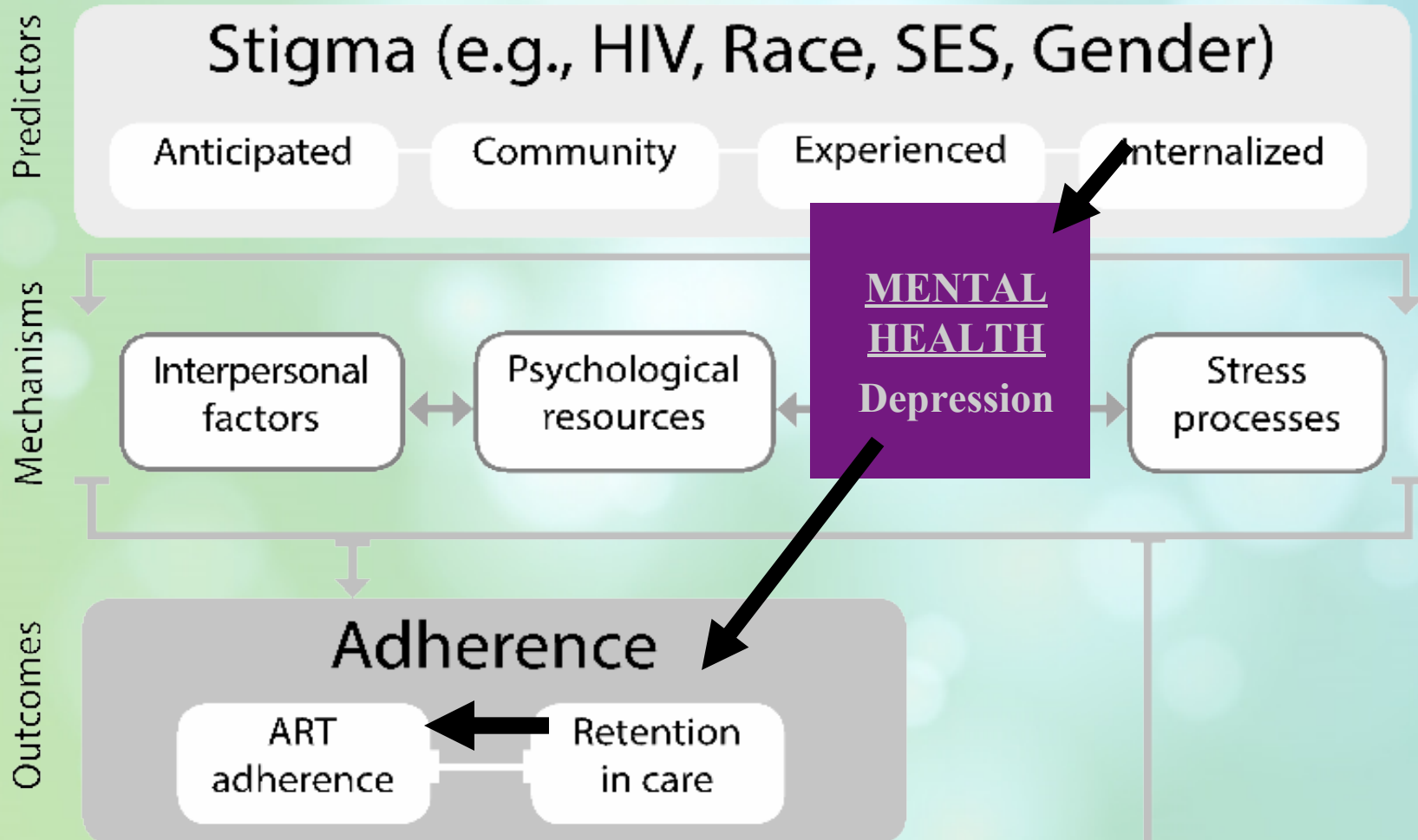
# Mediating role of visit adherence



\*  $p < .05$ ; \*\*  $p < .01$



# Conclusion





# Implications

- The present study points to:
  - the importance of addressing internalized HIV stigma to health care outcomes among people living with HIV
  - the potential to address the negative effects of internalized stigma on ART adherence by reducing depressive symptoms and promoting adherence consistent engagement in HIV care visits



# Limitations and Future Directions

- Self-report measures
- Cross-sectional design
- Limited generalizability
- Moderate sample size
- Exclusion of people living with substance use disorders







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# Thank You!

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