



Anger Within an HIV+ Population in Relation to Stigma & Anxiety

Mark Pierson

Eliot J. Lopez, M.S.

Mark Vosvick, Ph.D.

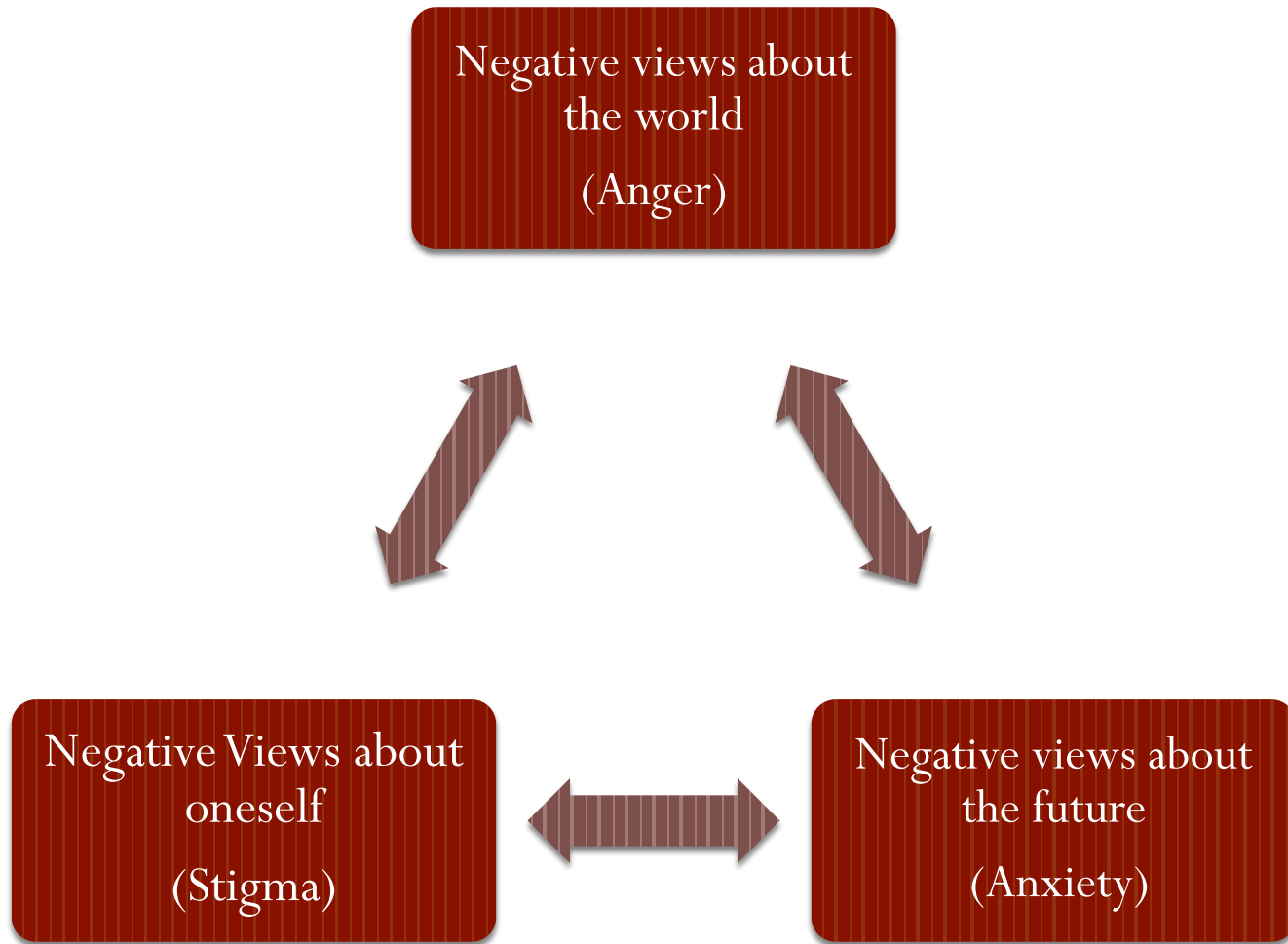
Department of Psychology



Why Anger?

- HIV+ individuals' immune functioning is negatively associated with stress-related anger (Gill, 2001).
- Both anxiety and anger are associated with self-labeling (Vie, Glaso & Einarsen, 2010); a behavior indicative of HIV-related stigma.
- HIV-related stigma, conversely, is related to high levels of anxiety and psychological distress (Wagner et al., 2010).

Theory: Beck's Cognitive Triad (1976)



Hypotheses

- 1. Stigma is positively associated with anger.
- 2. Anxiety is positively associated with anger.
- 3. Stigma and anxiety explain a significant proportion of variance in anger.

Participants

- Participants with HIV were recruited from the Dallas /Fort Worth area.
 - 18 years or older
 - Fluent in English
- Participants signed informed consent forms for our Institutional Review Board (IRB) approved study.
- We used computer-based questionnaires.
- Participants were provided an incentive of \$25 upon completion of the questionnaire.

Demographics		n=118
Gender:		
Female	58	(48.2%)
Male	60	(50.8%)
Ethnicity:		
African American	81	(68.6%)
European American	29	(24.6%)
Latino	4	(3.4%)
Other	4	(1.6%)
Sexual Orientation:		
Heterosexual	59	(50%)
Gay	38	(32.2%)
Bisexual	20	(17.8%)
Asexual	1	(.008%)



	Mean	Standard deviation	Range
Age (Years)	47	8.9	23-66
Years of education	12	2.6	3-18

Methodology

- Cross-sectional correlational design
- Hierarchical Linear Regression analysis

Dependent variable: Anger Expressed Inward

Independent variables: Negative Self Image

& Trait Anxiety

Measure: Anger

Anger: State-Trait Anger Expression Inventory (STAXI)

- Cronbach's $\alpha = .72-.89$ (Buss & Perry, 1992; Harris, 1997)
- Convergent validity: (MMPI: Overt Hostility Scale)
- 57 Likert-type items 1 (strongly disagree) - 4 (strongly agree)
- Higher scores denote more anger

“When I get frustrated, I feel like hitting someone”

Measure: Stigma

Stigma: HIV-related Stigma Scale (HSS)

- Cronbach's $\alpha = .96$ (Berger, Ferrans, & Lashley, 2001)
- Construct validity with related variables (i.e. social conflict)
- 40 Likert-type items: 1 (strongly disagree) - 4 (strongly agree)
- Higher scores denote more HIV-related Stigma

“I feel I am not as good a person as others because I have HIV”

Measure: Anxiety

Anxiety: State-Trait Anxiety Inventory (STAI)

- Cronbach's $\alpha = .89-.94$ (Spielberger et al., 1983)
- Convergent validity : Taylor manifest anxiety scale ($r = .80$)
- 40 Likert-type items: 1 (strongly disagree) - 4 (strongly agree)
- Higher scores denote more (state/trait) Anxiety

“I feel that difficulties are piling up so that I cannot overcome them”

Data Analysis

Univariate	M (SD)	Possible range	Actual range	α	
Anger expressed in	16.1 (4)	0-30	9-30	.86	
Negative self image (Stigma)	25.2 (6)	13-52	13-47	.82	
Trait Anxiety	24.1 (7)	0-40	9-36	.84	
Bivariate	1.	2.	3.	4.	5.
1.Age	1	-	-	-	-
2.Years of education	.18*	1	-	-	-
3.Anger express in	-.15	-.08	1	-	-
4.Negative self image	-.07	-.04	.42**	1	-
5.Trait Anxiety	-.01	-.05	-.35**	-.45**	1
Note: * $p < .05$ ** $p < .01$					

Data Analysis

- Dependent Variable: Anger Expressed Inward.
- Variables were entered simultaneously.
- No variables controlled for.

Multivariate	β	t	Tolerance	VIF
Negative Self Image	.31	3.33***	.79	1.27
Trait anxiety	.21	-2.30*	.79	1.27

Note: * $p < .05$ ** $p < .01$ *** $p < .001$
(Adj. $R^2 = .20$, $F(2, 115) = 8.26$, $p < .001$)

Discussion

- 1. Stigma is positively associated with anger: **Supported**
 - 2. Anxiety is positively associated with anger: **Not Supported**
 - 3. Stigma and anxiety explain a significant proportion of variance in anger: **Supported**
-
- **Conclusion:** Our goal to elucidate the relationship between Stigma & Anxiety on Anger has been completed; however, trait anxiety was negatively associated with expressed anger.

Discussion

Clinical Implications: Results from our study support interventions aimed at reducing HIV-related stigma in hopes of promoting healthy immune functioning (Gill, 2001) by reducing stress-related anger.

Through such self image interventions, therapy could promote psychological health (Wager et al, 2010) and perhaps reduce HIV-related stigma.

By working with clients on anger and anxiety, self labeling can be affected (Vie, Glaso & Einarsen, 2010), hopefully minimizing negative self image.

Discussion continued...

Limitations: Our cross-sectional correlation design inhibited our ability to infer causal relationships.

Self-report style scales used are vulnerable to participants giving socially desirable answers restricting validity.

Lastly, convenience sampling techniques limit our ability to generalize our findings.

Future research: Anger, Stigma, and Anxiety measures could be given to participants before and after a therapy intervention in aims of predicting and reducing anger.

Acknowledgements

- Center for Psychosocial Health Research
 - Members & Faculty
- Dallas Resource Center
- Samaritan House in Fort Worth
- HIV Community
- Ronald E. McNair Program

Questions?

- Beck, A.T. (1976) *Cognitive therapy and the emotional disorders*. New York: International University Press.
- Berger, B. E., C. E. Ferrans, and F. R. Lashley FR. 2001. "Measuring stigma in people with HIV: Psychometric assessment of the HIV stigma scale," *Research in Nursing and Health* 24: 518–529.
- Buss, A, & Perry, M. (1992). On the dimensionality of the buss/perry aggression questionnaire . *Personality Processes and Individual Differences*,
- Gill, S. (2001). An ericksonian hypnosis intervention on psychological distress and immune functioning in hiv-1 seropositive patients. US: ProQuest Information & Learning,
- Harris, J. (1997). A further evaluation of the aggression questionnaire: issues of validity and reliability . *Behavioral Research & Medicine* ,
- Spielburger, C, Sydeman, S, Owen, A, & Marsh, B. (1999). measuring anxiety and anger with the state-trait anxiety inventory (stai) and the state-trait anger expression inventory (staxi). *The use of psychological testing for treatment planning and outcomes assessment (2nd ed.)*,
- Wagner, A, Hart, T, Mohammed, S, Ivanova, E, Wong, J, & Loutfly, M. (2010). Correlates of hiv stigma in hiv-positive women. *Archives of Women's Mental Health*,
- Vie, T, Glaso, L, & Einerson, S. (2010). Does trait anger, trait anxiety or organizational position moderate the relationship between exposure to negative acts and self-labeling as a victim of workplace bullying?. *Nordic Psychology, Vol 62(3)*.