Published in final edited form as:

AIDS Care. 2017 February ; 29(2): 168–176. doi:10.1080/09540121.2016.1204419.

Stigma and Disease Disclosure Among HIV+ Individuals: The Moderating Role of Emotion Dysregulation

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Abstract

Increased disclosure of HIV status has been shown to reduce disease transmission among persons living with HIV (PLHIV). HIV-related stigma has been shown to reduce HIV disclosure; however, little is known about factors that may underlie the relation between HIV-related stigma and HIV disclosure. The current study examined emotion dysregulation (i.e., maladaptive generation, processing, and modulation of one's emotions) in the relation between HIV-related stigma, sub-facets of HIV-related stigma, and HIV disclosure among PLHIV seeking psychological treatment [$n=80$; 61.3% male; 56.3% African-American (non-Hispanic); $M_{age}=48.25$, $SD=7.39$]. Results indicated past experiences of rejection due to one's HIV status (i.e., enacted stigma), as well as subjective beliefs regarding how PLHIV are evaluated by others (i.e., public attitudes stigma), are significantly related to HIV disclosure. Additionally, these relations are moderated by emotion dysregulation. Specifically, greater HIV-related stigma is associated with reduced HIV disclosure for individuals with greater emotion dysregulation. However, emotion dysregulation did not moderate the relations between negative self-image (e.g., shame, guilt) or disclosure concerns and HIV disclosure. Findings suggest emotion dysregulation may play a moderating role for certain types of HIV disclosure.

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Conflict of Interest

Authors of the present study declare that there are no conflicts of interest to report regarding this project.

Keywords

Stigma; Emotion; Disclosure; HIV; AIDS

HIV disclosure is defined as revealing one's HIV status to other persons (Adejumo, 2011). Increased HIV disclosure is generally associated with reduced HIV transmission and better mental health (Chaudoir, Fisher, & Simoni, 2011). Despite the importance of increasing HIV disclosure for both persons living with HIV (PLHIV) and sero-negative individuals, estimated HIV disclosure rates among PLHIV remain alarmingly low in the United States (52–59%; Sullivan, 2009) and across international settings (see Obermeyer & Osborn, 2007; Ssali et al., 2010).

One construct shown to be related to HIV disclosure is HIV-related stigma (Brent, 2016). Stigma is a multifaceted construct referring to one's social identity (Goffman, 2009; Herek, 2014; Nyblade, 2006). HIV-related stigma is a global (i.e., higher-ordered, overarching) factor theorized as a combination of four distinct sub-factors including 1) negative self-image – feeling inferior, shameful or guilty; 2) enacted stigma – experiences of rejection or discrimination in the past; 3) concerns with public attitudes – subjective beliefs regarding how others view PLHIV; 4) disclosure concerns – perceptions that one's HIV status needs to be concealed (Bunn, Solomon, Miller, & Forehand, 2007). Each of these stigma sub-factors have been inversely related to HIV-status disclosure (Brent, 2016; Catona, Greene, Magsamen-Conrad, & Carpenter, 2016; Elope et al., 2016; Rwemisisi, Wolff, Coutinho, Grosskurth, & Whitworth, 2008). Further, the negative association between HIV-related stigma and HIV disclosure is evident across various cultures and age ranges (DeAlmeida, 2009; Emlet, 2006). Yet, despite consistent evidence that HIV-related stigma is related to HIV disclosure (French, Greeff, Watson, & Doak, 2015; Obermeyer, Baijal, & Pegurri, 2011; Steward et al., 2008), there remains a need to explicate moderators of this relation to better identify individuals 'at-risk' for non-disclosure.

One factor potentially impacting HIV-related stigma and HIV-disclosure is emotion dysregulation. Emotion dysregulation encompasses deficiencies in one's awareness, understanding, and modulation of affective arousal (Gross, 1998; Gross & Jazaieri, 2014). Among PLHIV, emotion dysregulation has been shown to mediate the relations between perceived distress tolerance and anxiety/depressive symptoms, such that the relations between distress tolerance and anxious/depressive symptom severities were better explained via emotion regulation difficulties (Brandt, Gonzalez, Grover, & Zvolensky, 2013). Other work has found higher emotion dysregulation in conjunction with greater depressive symptoms is associated with greater severity of HIV-related symptoms, greater likelihood of avoidant coping strategies, poorer HIV medication adherence, and lower tolerance of distress (Brandt, Bakhshaie, Zvolensky, Grover, & Gonzalez, 2015).

Interestingly, emotion dysregulation has not been explored in relation to HIV-related stigma and HIV disclosure among PLHIV. Although HIV disclosure is not universally related to positive outcomes (Gielen et al., 2000; Pachankis, 2007), emotion dysregulation may be associated with less disclosure, thereby serving to maintain unhealthy mental health outcomes. As an (theoretical) example, an HIV+ individual with greater emotion regulation

difficulties may be more reactive when experiencing stigmatization (e.g., discrimination, violence) relative to an HIV+ individual with lower levels of emotion dysregulation. Accordingly, the emotionally dysregulated HIV+ individual may be less likely to risk encountering consequential reactions of others via disclosure, and in turn, perpetuating and/or amplifying their own emotional distress.

Together, the current study examined whether emotion dysregulation moderated the associations between HIV-related stigma and HIV disclosure among PLHIV. It was hypothesized that greater levels of emotion dysregulation with concurrently high levels of HIV-related stigma – as a global index and across all stigma sub-factors – would be associated with lower rates of HIV disclosure. Further, as HIV-related stigma has been shown to be multifaceted (Bunn et al., 2007), we planned follow-up analyses examining associations between each stigma sub-factor and disclosure and the moderating role of emotion dysregulation across each of the proposed models (see Figure 1).

Method

Participants

Participants in the current study included 80 adults with a self-reported diagnosis of HIV/AIDS (61.2% male, 37.5% female, 1.3% transgender; $M_{\text{age}}=48.25$, $SD=7.39$). The sample was recruited from an urban area located in southwestern Texas and was ethnically diverse (32.5% White/Caucasian, 56.2% Black/Non-Hispanic, 5% Black/Hispanic, 3.8% Hispanic, and 2.5% 'Mixed/Other'). Approximately 66% of participants reported obtaining a high school degree or completing 'some college' as their highest level of education. The majority (78.8%) of our sample reported being currently unemployed, with over half (58.8%) having an annual income of \$10,000 or less. Nearly half (48.7%) of the sample identified as heterosexual, 32.5% as homosexual, 16.3% as bisexual, and 2.5% identifying as transgendered. Regarding HIV status, 43.8% of participants reported a diagnosis of HIV, 48.7% reported a diagnosis of AIDS, while 7.5% did not know their status. On average, participants within our sample reported living with an HIV diagnosis for 17 years ($SD=8.43$). Further, participants reported an average CD4 T-cell count of 573.25 ($SD=283.1$), ranging from 28–1,300, and 71.1% reported an undetectable viral load. Eighty-five percent of our sample met criteria for having a psychological disorder (for specific diagnostic prevalence rates see Table 1). There was also a high rate of comorbidity within our sample ($M_{\text{diagnoses}}=2.36$, $SD=1.98$), with 53.7% meeting criteria for multiple disorders.

Individuals deemed eligible for participation were between the ages of 18 and 65, had a positive diagnosis of HIV/AIDS, and capable of providing informed written consent. Participants were excluded from study participation if they were unable to provide informed consent, could not answer questions accurately due to illiteracy, or could not reliably attend scheduled appointments. Five participants were not included in analyses due to insufficient completion of key measures or random response patterns.

Procedure

For the current study, cross-sectional baseline data was taken from a larger project examining the effectiveness of an anxiety-reduction program developed for PLHIV (F31 MH099922). Potential participants responded to flyers posted at local HIV/AIDS Service Organizations (ASO's). Interested individuals contacted research staff and were screened for eligibility via phone, and if deemed eligible, were scheduled for a baseline appointment. Upon completion of the appointment, participants were compensated with a \$20 gift card to a regional grocery store. The University of Houston's Institutional Review Board (IRB) approved all study procedures.

Measures

MINI International Neuropsychiatric Interview (MINI; Lecrubier et al., 1997)—

The MINI is a semi-structured diagnostic interview developed to assess a wide range of psychological disorders (emotional disorders, substance use disorders, psychosis, etc.). The MINI used in the current study evaluated all symptoms endorsed by participants based on disorder criteria from the DSM-IV. The diagnostic interview specifically assessed current diagnoses - lifetime diagnoses were only considered if clinically relevant to the present diagnosis (e.g. recurrent major depressive disorder). The MINI has been utilized in prior studies examining HIV+ samples (e.g. Breuer et al., 2014) and is psychometrically sound (see Lecrubier et al., 1997). In the current study, 12.5% of MINI diagnostic interviews were checked for reliability by a trained doctoral-level rater; no discrepancies were noted.

HIV/AIDS Stigma Scale (HASS)—The HASS (Bunn et al., 2007) is a self-report assessment of HIV/AIDS related stigma. The HASS comprises of 32 items on a Likert-type scale ranging from 1 ('strongly disagree') to 4 ('strongly agree'). The HASS measures global HIV related stigma via the aggregate of four sub-types of stigma including: Enacted Stigma (HASS-E), Public Attitudes (HASS-P), Negative Self-Image (HASS-N), and Disclosure Concerns (HASS-D). The HASS-E subscale assesses personal experiences of rejection in the past. The HASS-N subscale pertains to internalized concerns such as feelings of shame or guilt. The HASS-P subscale measures the infected person's beliefs of what other people think about PLHIV. HASS-D is related to perceived obligations to hide one's HIV status from others. The HASS has demonstrated strong psychometric properties (Bunn et al., 2007). In the current study, internal consistency values for the HASS subscales ranged from adequate ($\alpha=.76$) to excellent ($\alpha=.94$).

Difficulties in Emotion Regulation Scale (DERS)—The DERS (Gratz & Roemer, 2004) is a multidimensional self-report measure used to assess global emotion dysregulation as well as a variety of emotion dysregulation sub-facets. The DERS consists of 36 items on a 5-point Likert-type scale 1 ('almost never') to 5 ('almost always'). Domains of affect regulation assessed include: non-acceptance of emotional responses, limited access to emotion regulation strategies, difficulties in engaging in goal-directed behaviors, impulse control difficulties, lack of emotional awareness, and lack of emotional clarity. Higher scores on these dimensions indicate greater degrees of difficulty. For the current study, the global emotion dysregulation composite was utilized ($\alpha=.95$).

Positive Affect Negative Affect Schedule (PANAS)—The PANAS (Watson, Clark, & Tellegen, 1988) is a widely used self-report measure consisting of 20 items measuring trait negative and positive emotional states, as measured by positive affect (PA) and negative affect (NA) subscales. The PANAS was developed such that these two subscales can be used as independent measures, depending on the affective-valence of interest. Past studies indicate the psychometric properties of the PANAS are acceptable in both anxious and depressive samples (Brown et al., 1998; Watson et al., 1988), as well as HIV+ samples (e.g. Gonzalez, Zvolensky, Solomon, & Miller, 2010). Trait rather than state instructions for the negative affect subscale (PANAS-NA) were used and the internal consistency in the current sample was good ($\alpha = .87$).

HIV Disclosure Status—Disclosure status was determined via self-report. Specifically, participants were asked how many people to whom they have disclosed their HIV status. This item indexed good variability ($R^2 = 0.873$), with 1.3% reporting ‘nobody,’ 16.3% reporting ‘hardly anybody,’ 36.3% reporting ‘a few people,’ 35% reporting ‘almost anyone,’ and 11.3% reporting ‘everyone.’

Analytic Strategy

Using SPSS 22.0, bivariate correlations among study variables were examined and moderation tests were conducted using hierarchical linear regression. In hierarchical regression-based moderation models, the unstandardized regression coefficients are estimated for associations between HIV-related stigma (HASS total; X) and emotion dysregulation (DERS; Z) with the outcome (HIV disclosure; Y) while setting the other equal to zero. Both the X and Z were mean-centered. For each model, study covariates (age, race, gender, sexual orientation, education, and negative affect) were entered in step 1 of a hierarchical linear regression, followed by the mean-centered values for X and Z in step 2, and the interaction variable (i.e., the product of the mean-centered X and Z variables) in step 3. To probe the interaction, regions of significance were determined using the Johnson-Neyman technique (Bauer & Curran, 2005), calculated by the PROCESS macro (Hayes, 2013). In contrast to other interaction probing methods, the Johnson-Neyman technique estimates exact values of Z which yield the critical value used to determine statistical significance (Bauer & Curran, 2005).

Results

Descriptive Data and Bivariate Relations

For bivariate correlations of all variables, see Table 2. HIV disclosure was significantly negatively associated with HASS total ($r = -.39, p < .001$) and all four HASS subscales (r 's $< -.26, p$'s $< .03$) but not DERS ($r = -.10, p = .371$). HASS subscales were significantly positively correlated with each other (r 's $> .55, p$'s $< .001$). With the exception of HASS-D ($r = .17, p = .127$), HASS subscales were significantly positively associated with DERS (r 's $> .30, p$'s $< .006$).

Moderation Analyses: Stigma Total Score

As a set, covariates entered in the first step did not account for a significant amount of variance in HIV disclosure [$R^2=.07$, $F(6, 73)=0.88$, $p=.516$; See Table 3]. Emotion dysregulation was not significantly associated with disclosure ($\beta=.03$, $t=0.16$, $p=.872$), whereas the global index of HIV-related stigma (HASS-Total) was significantly and negatively associated with disclosure ($\beta=-.42$, $t=-3.56$, $p<.001$; Table 3). Contrary to hypotheses, there was not a significant interaction of emotion dysregulation and HIV-related stigma ($\beta=-1.10$, $t=-1.63$, $p=.108$). However, post-hoc examination of the pattern of findings using the Johnson-Neymann (J-N) revealed a trend consistent with hypotheses. Specifically, increased HIV-related stigma was significantly associated with reduced disclosure for those with greater emotion dysregulation (DERS = 71.7), which applied to 77.5% of the sample (see Figure 2, top left), but not to those with less emotion dysregulation.

Moderation Analyses: Stigma Sub-Factors

Due to the multi-faceted nature of HIV-related stigma, separate analyses were conducted with each of HASS sub-factors as the X variable, moderated by emotion dysregulation (Figure 1).

In the first model, which examined the associations of enacted stigma (HASS-E) and emotion dysregulation on HIV disclosure, emotion dysregulation was not significantly associated with disclosure ($\beta=.01$, $t=0.04$, $p=.968$; Table 3). HASS-E, however, was significantly related to lowered disclosure ($\beta=-.25$, $t=-2.01$, $p=.049$). Further, there was a significant interaction between emotion dysregulation and enacted stigma ($\beta=-1.46$, $t=-2.34$, $p=.022$); post-hoc analyses using the J-N technique were used as recommended by Hayes (2013). Results indicated the stigma-disclosure association was only significant when emotion dysregulation scores were ≥ 92.3 (42.5% of the current sample; Figure 2 top right), indicating that as emotion dysregulation scores increase, the association of HASS-E with disclosure becomes significant, and increases in strength with greater emotion dysregulation.

In the public attitudes model (HASS-P), emotion dysregulation was not significantly associated with disclosure ($\beta=-.04$, $t=-0.23$, $p=.816$; Table 3), whereas HASS-P was significantly associated with disclosure ($\beta=-.29$, $t=-2.37$, $p=.020$), indicating that HASS-P and disclosure are inversely related. There was a significant interaction between emotion dysregulation and public attitudes ($\beta=-1.24$, $t=-2.06$, $p=.043$). The J-N technique revealed that the association of HASS-P with disclosure is only significant when emotion dysregulation scores are ≥ 84.0 (60.0% of current sample; Figure 2 bottom left), indicating that the association between HASS-P and HIV disclosure is significant only for those with greater emotion dysregulation, with the strength of the association increasing as emotion dysregulation increased.

Surprisingly, in the negative self-image model (HASS-N), emotion dysregulation was not significantly associated with disclosure ($\beta=.05$, $t=0.32$, $p=.752$; Table 3) whereas HASS-N yielded statistical significance ($\beta=-.39$, $t=-3.01$, $p=.004$). There was not a statistically significant interaction between emotion dysregulation and HASS-N ($\beta=-1.04$, $t=-1.58$, $p=.$

118). However, examination of the J-N test of significant regions revealed a similar pattern of results, such that HASS-N was significantly associated with disclosure when emotion dysregulation scores are high (≥ 72.4 , which includes 77.5% of current sample; see Figure 2 bottom right).

Finally, disclosure concerns (HASS-D) was significantly associated with status disclosure ($\beta = -.52$, $t = -5.16$, $p < .001$). Yet, when considering HASS-D, emotion dysregulation was not significantly associated with status disclosure ($\beta = -.08$, $t = -0.57$, $p = .572$; Table 3). No significant interaction was evident ($\beta = .15$, $t = 0.26$, $p = .796$). Additionally, the J-N technique provided no evidence of a moderating role of emotion dysregulation (i.e., HASS-D scores were associated with disclosure at nearly every value of emotion dysregulation).

Discussion

Results were partially consistent with predictions. Specifically, there were statistically significant interactions between emotion dysregulation and enacted stigma and perceptions of public attitudes. The observed significant interactions were evident above and beyond the variance accounted for by the main associations of stigma and emotion dysregulation, as well as an array of covariates (e.g., gender, race, sexual orientation, negative affectivity). The pattern of significant interactions indicated that greater levels of stigma were associated with reduced rates of HIV disclosure only for those with greater emotion dysregulation. The present results suggest that greater emotion dysregulation may exacerbate the associations of HIV-related enacted and/or public attitude stigma among PLHIV. Conversely, greater emotion regulation may serve as a protective factor against these associations, buffering PLHIV against the negative impact of HIV-related enacted and public attitude stigma. Future work could usefully examine whether psychotherapies targeting emotion regulation can help buffer PLHIV from such stressors, and whether such interventions can improve behaviors relevant to public health, such as disclosure of HIV status.

Contrary to our prediction, there were no significant interactions for emotion dysregulation and the composite index HIV stigma, as well as two of the sub-factors: negative self-image, and disclosure concerns. However, the pattern of findings (based on the Johnson-Neyman procedure) in all cases was conceptually similar to those obtained for the enacted and public attitude stigma. Thus, greater HIV related stigma was associated with lower disclosure, and this association was dependent upon greater levels of emotion dysregulation. Yet, there was no evidence of a moderating role of emotion dysregulation in terms of HIV-related stigma and disclosure. In the case of stigma related to disclosure concerns, HIV disclosure and HIV-disclosure concerns had more shared variance (28%) compared to the other three HASS sub-factors (shared variance ranged from 6.8%–10.2%). Thus, it is possible that the overlapping constructs prevented additional variance to be explained by emotion dysregulation and/or the interaction term. Moreover, statistical power due to the present sample size may have impacted the ability to isolate the interaction.

Although not primary study aims, a number of observations warrant brief comment. First, the sub-factors of HIV-related stigma and emotion dysregulation were differentially related to HIV disclosure. Specifically, enacted stigma, public concerns, negative self-image and

disclosure concerns were significantly negatively related to disclosure (range of β 's = -.26 to -.53). Second, there was no evidence that emotion dysregulation was significantly related to the dependent measure. Future research could usefully explore whether distinct aspects of emotion dysregulation (e.g. emotional awareness vs. non-acceptance) play differential roles in relation to HIV disclosure.

There are some study limitations. First, the cross-sectional design of the present study does not permit inferences regarding causality. Therefore, future investigations could build upon the present work and aim to test these relations by utilizing a longitudinal design. Second, our study utilized a small sample size, potentially reducing power. Thus, future work could replicate and extend the present results with larger sample sizes. Third, the current study's data were collected solely from individuals seeking treatment. Accordingly, disclosure rates in the current study may be inflated relative to the general HIV+ population (Medley, Garcia-Moreno, McGill, & Maman, 2004; Obermeyer et al., 2011; Sullivan, 2009). Fourth, temporal factors (i.e. length of time from initial seropositive diagnosis) should be considered in future research (Mansergh, Marks, & Simoni, 1995). Fifth, due to the monomethod measurement approach, method variance may influence the current findings. Thus, future work should consider multimethod assessment to index the primary independent and dependent variables. Lastly, the observed associations were generally small in size (Beta values .01–.11); examination of other factors that impact these relations may help to explain additional variance.

Together, the present study suggests emotion dysregulation may moderate the associations of stigma on disclosure for individuals experiencing enacted stigma and concerns regarding public attitudes towards PLHIV. Although future work is needed to further understand the nature of these relations, the present study provides novel empirical evidence regarding the mechanistic processes by which HIV-related stigma may deter disclosure of HIV status. Findings may have beneficial implications for current HIV treatment/prevention strategies in regard to reducing HIV-related transmission behavior among PLHIV.

Acknowledgments

This research project was supported by the National Institute of Mental Health, (F31 099922)

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Figure 1.
Hypothesized Model of HIV-Related Stigma (Global and Sub-Factors) in Relation to HIV Disclosure Moderated by Emotion Dysregulation

Figure 2.

Location of change in significance for the conditional associations of Stigma on HIV Disclosure

Note: The solid black lines illustrate the conditional association of the independent variable (HASS-T [top left], HASS-E [top right], HASS-P [bottom left], HASS-N [bottom right]) on HIV Disclosure at values of the moderator (DERS). Dotted lines represent the 95% confidence interval for the association. The grey area represents the regions of DERS scores where the association is significant.

TABLE 1

Diagnostic prevalence of psychological disorders within current sample (n=80)

Disorder Category	Disorder	Percentage of Sample
Mood Disorders		58.70%
	Major Depressive Disorder (MDD)	41.30%
	Dysthymia	16.30%
Anxiety Disorders		60%
	Generalized Anxiety Disorder (GAD)	30%
	Panic Disorder (PD)	20%
	Panic Disorder w/Agoraphobia (PDA)	18.80%
	Mania/Hypomania	17.50%
	Post-Traumatic Stress Disorder (PTSD)	15%
	Social Phobia (SOC)	12.50%
	Obsessive Compulsive Disorder (OCD)	2.50%
Substance Use Disorders		31.20%
	Alcohol Use Disorders	20%
	Other Substance Use Disorders	27.50%

TABLE 2

Means, standard deviations and bivariate correlations among variables (n=80)

Variable	Mean/N (SD/%)	Range	1	2	3	4	5	6	7	8	9	10	11	12
1. Age (years)	48.3 (7.4)	27–63	–											
2. Race (Black- Non/Hispanic)	45 (56.3)	–	–0.01	–										
3. Gender (Male)	49 (61.3)	–	0.18	–.31**	–									
4. Sexual Orientation (Heterosexual)	39 (48.8)	–	0.12	–0.12	.54**	–								
5. Education (High school+)	36 (45.1)	–	.26*	–0.21	.32**	.23*	–							
6. Negative Affectivity (PANAS-NA)	24.6 (9.2)	10–46	–0.16	0.08	–0.16	–0.18	–0.09	–						
7. Total Stigma (HASS-T)	78.1 (20.5)	33–120	–0.12	0.01	–0.03	–0.14	–.23*	.34**	–					
8. Enacted Stigma (HASS-E)	25.2 (8.7)	11–43	–0.07	0.02	0.04	–0.12	–0.2	.28*	.92**	–				
9. Public Concerns (HASS-P)	15.9 (4.7)	6–24	–0.08	0.11	–0.07	–0.12	–.24*	.31**	.89**	.79**	–			
10. Negative Self-Image (HASS-N)	15.4 (4.7)	7–26	–.29**	–0.06	–0.12	–0.19	–.27*	.38**	.80**	.64**	.63**	–		
11. Disclosure Concerns (HASS-D)	21.5 (5.7)	8–32	–0.03	–0.04	–0.02	–0.04	–0.09	.24*	.82**	.62**	.67**	.55**	–	
12. Emotion Dysregulation (DERS)	93.7 (28.7)	50–151	–0.1	0.01	–0.13	–.22*	–0.15	.70**	.38**	.38**	.30**	.46**	0.17	–
13. Disclosure	2.4 (0.9)	0–4	–0.1	0.03	0.09	0.19	0.1	–0.05	–.39**	–.26*	–.29*	–.32**	–.51**	–0.1

* p<.05,

**

p<.01; Note: PANAS-NA = Positive Affect Negative Affect Schedule, Negative Affectivity Subscale (Watson, Clark, & Tellegen, 1988); HASS-T=HIV/AIDS Stigma Scale – Total; HASS-E = HIV/AIDS Stigma Scale – Enacted; HASS-P = HIV/AIDS Stigma Scale – Public Concerns; HASS-N = HIV/AIDS Stigma Scale – Negative Self-Image; HASS-D = HIV/AIDS Stigma Scale – Disclosure Concerns (Bunn et al., 2007); DERS = Difficulties in Emotion Regulation Scale (Grazt & Roemer, 2004)

TABLE 3

Main and Interactive Effects of HIV Stigma (Total Scale and Sub-Factors) and Emotion Dysregulation in Predicting HIV Disclosure (n=80)

<i>[Model 1] Predictor: Total Stigma; Outcome: HIV Disclosure</i>				
	β	<i>t</i>	<i>p</i>	<i>R</i> ² Change
Step 1				
Age	−0.16	−1.35	0.182	
Race	0.07	0.61	0.541	
Gender	−0.01	−0.05	0.961	
Sexual Orientation	0.19	1.39	0.169	
Education	0.12	0.93	0.355	
Negative Affectivity	−0.03	−0.29	0.771	0.07
Step 2				
Emotion Dysregulation	0.03	0.16	0.872	
Total Stigma	−.42***	−3.56	<.001	.14**
Step 3				
Emotion Dysregulation*Total Stigma	−1.1	−1.63	0.108	0.03
<i>[Model 2a] Predictor: Enacted Stigma; Outcome: HIV Disclosure</i>				
	β	<i>t</i>	<i>p</i>	<i>R</i> ² Change
Step 1				
Age	−0.16	−1.35	0.182	
Race	0.07	0.61	0.541	
Gender	−0.01	−0.05	0.961	
Sexual Orientation	0.19	1.39	0.169	
Education	0.12	0.93	0.355	
Negative Affectivity	−0.03	−0.29	0.771	0.07
Step 2				
Emotion Dysregulation	0.01	0.04	0.968	
Enacted Stigma	−.25*	−2.01	0.049	0.05
Step 3				
Emotion Dysregulation*Enacted Stigma	−1.46*	−2.34	0.022	.06*
<i>[Model 2b] Predictor: Public Attitudes; Outcome: HIV Disclosure</i>				
				<i>R</i> ² Change
Step 2				
Emotion Dysregulation	−0.04	−0.23	0.816	
Public Attitudes	−.29*	−2.37	0.02	0.07
Step 3				
Emotion Dysregulation*Public Attitudes	−1.24*	−2.06	0.043	.05*
<i>[Model 2c] Predictor: Negative Self-Image; Outcome: HIV Disclosure</i>				

<i>[Model 1] Predictor: Total Stigma; Outcome: HIV Disclosure</i>				
	β	<i>t</i>	<i>p</i>	<i>R</i> ² Change
Step 2				
Emotion Dysregulation	0.05	0.32	0.752	
Negative Self-Image	-.39**	-3.01	0.004	.11*
Step 3				
Emotion Dysregulation*Negative Self-Image	-1.04	-1.58	0.118	0.03
<i>[Model 2d] Predictor: Disclosure Stigma; Outcome: HIV Disclosure</i>				
				<i>R</i> ² Change
Step 2				
Emotion Dysregulation	-0.08	-0.57	0.572	
Disclosure Concerns	-.52***	-5.16	<.001	.26***
Step 3				
Emotion Dysregulation*Disclosure Concerns	0.15	0.26	0.796	0.01

Note:

*
p<.05,

**
p<.01

p<.001.