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Beyond negative attitudes: Examining HIV/AIDS stigma behaviors in clinical encounters

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Abstract

HIV/AIDS related stigma remains a major global health issue with detrimental consequences for the treatment and health of people with HIV/AIDS (PWHAs), especially when manifested by health professionals. Research on HIV/AIDS stigma has successfully documented negative attitudes towards PWHAs among health professionals. However, fewer studies have examined how stigma is manifested behaviorally by health professionals during clinical interactions. Therefore, this study aimed to: (1) examine the behavioral manifestations of HIV/AIDS stigma among physicians in training during clinical interactions, and (2) document the interrelation between HIV/AIDS stigma attitudes and behaviors. We implemented an experimental design using Standardized Patient (SP) simulations, observational techniques, and quantitative questionnaires. The sample consisted of 66 physicians in training in Puerto Rico who engaged in SP encounters with two scenarios: (1) PWHAs infected via illegal drug use (experimental condition), and (2) a person with a common cold (control condition). Results evidenced statistically significant differences between both simulations ($p = .047$), with a higher number of stigma behaviors manifested in the experimental condition. HIV/AIDS stigma attitudes were not correlated with stigma behaviors. Negative emotions associated with drug use were positively associated with drug-related stigmatizing behaviors.

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Keywords

HIV/AIDS; drugs; stigma; behaviors; physicians

Disparities in AIDS case numbers among Latinos are significant (Centers for Disease Control and Prevention, 2015; Kaiser Family Foundation, 2014). Puerto Ricans living on the island account for a substantial proportion of AIDS cases in the Caribbean (UNAIDS, 2015). HIV/AIDS stigma continues to be an important driver of the epidemic among Latinos in the United States (Zúñiga, Brennan, Scolari, & Strathdee, 2008) and in Puerto Rico. Research shows that HIV/AIDS stigma continues to be present among health care professionals who are the first line of action to impact the growing epidemic (Parker & Aggleton, 2003; Rivera, Varas-Díaz, Reyes-Estrada, Suro, & Coriano, 2012).

People who feel stigmatized during physician/patient interactions may avoid testing for HIV (Valdiserri, 2002) and may have problems accessing quality healthcare (Davies, Bindman, & Washington, 2002). In Puerto Rico, people living with HIV/AIDS (PWA) have reported sometimes experiencing HIV/AIDS stigma during physician visits (Varas Díaz, Malavé Rivera, & Cintron Bou, 2008). Health professionals who hold stigmatizing attitudes towards PWA commonly manifest them in clinical encounters (Nyblade, Stangl, Weiss, & Ashburn, 2009). However, while research in this area has focused on documenting negative attitudes and relied on self-reports or accounts from third parties (Zarei, Joulai, Darabi, & Fararouei, 2015), there is a need for research that simultaneously documents actual behaviors during the clinical encounter.

Understanding how stigma manifests behaviorally in clinical encounters remains challenging, partly because documenting HIV/AIDS stigma behaviors can be methodologically difficult and time consuming. Still, the interrelation of stigma attitudes and their behavioral manifestations needs attention because of how they can be manifested or inhibited in clinical scenarios. Thus, our study aimed to: (1) examine the behavioral manifestations of HIV/AIDS stigma among physicians in training during simulated clinical interactions, and (2) explore the interrelation between HIV/AIDS stigma attitudes and behaviors. We hypothesized that stigma behaviors would be higher among physicians-in-training exposed to an HIV/AIDS patient than to a comparable control patient. We also hypothesized that HIV/AIDS stigma behaviors would be positively associated with more stigmatizing attitudes and emotions regarding HIV/AIDS, while drug-related stigma behaviors would be positively associated with more negative attitudes and emotions towards drug users. We further expected that self-efficacy for treating HIV and drug addiction would be negatively associated with stigmatizing behaviors towards those conditions.

Method

Design and participants

We implemented an experimental design using Standardized Patient (SP) Technology, observational techniques and quantitative questionnaires. The sample consisted of 66 fourth-year physicians in training in Puerto Rico (Table 1). Each participant engaged in two SP

simulation conditions: (1) HIV-infected through intravenous drug use, and (2) the common cold. These two SP conditions were randomly interspersed amidst other SP cases that participants complete throughout their yearly training. We selected an HIV-infected SP through intravenous drug use as an experimental case as this is the most prevalent means of infection in Puerto Rico (Varas-Díaz et al., 2010). The control condition was a SP with a common cold. All patients reported a uniform health concern (i.e., symptoms of a common cold) as part of this simulated encounter in order to reduce variance between the two conditions. Each encounter was video-recorded for posterior analysis.

Measures

After engaging in the simulations participants completed several measures, including: (1) a demographic data questionnaire, (2) the Stigma and HIV/AIDS Scale (Varas-Díaz & Neilands, 2009), (3) the Attitudes towards Drug Users Scale (Albizu-García et al., 2015), (4) the Emotions Associated with AIDS Inventory (Varas-Díaz & Marzan-Rodriguez, 2007), and (5) the HIV/AIDS Skills and Self-efficacy Assessment Inventory. All video recorded interactions were later coded by our team with the Behavioral Manifestations of HIV/AIDS Stigma Inventory (BMHASI; Rivera-Díaz, Varas-Díaz, Reyes, Sánchez, & Suro, 2011) which includes 26 non-verbal and verbal behaviors identified by PWHA as manifestations of HIV/AIDS stigma via focus groups (Table 2). The inventory assesses behaviors applicable to both the experimental and control conditions (General Behaviors) and behaviors specific to the experimental simulation (HIV/AIDS and Drug use). Behaviors are assessed using a three-point scale with the following values: manifested (2), unsure (1), and not manifested (0).

Data analysis

One-way frequency tables were used to characterize the sample and the percentage of each observed stigmatizing behavior. The total of general stigma behaviors was compared for the common cold control condition to the HIV drug user condition using a two-group repeated measures comparison of means estimated via restricted maximum likelihood (REML) with an unstructured covariance matrix in Stata 14 via the `-mixed-command`. HIV and drug-related stigma behaviors were measured only in the HIV drug user condition and their totals were regressed onto HIV and drug user stigma attitudes scales, respectively, while controlling for participant age and gender, importance placed on religion, and social desirability. Non-drug-related emotions were included in the HIV regression model and emotions regarding drug use were included in the drug use stigma behaviors model. In addition, self-efficacy for treating HIV and drug addiction were respectively included in the HIV and drug stigma behavior regression models. Due to missing data for the explanatory variables in the regression models (listwise $N_s = 59$ and 56 for HIV and drug use models, respectively), regression models were estimated using full-information maximum likelihood (FIML) under the missing-at-random assumption with Stata 14's `-sem-command`. To guard against possible model assumption violations, robust standard errors were used. For each regression analysis we report the unstandardized regression coefficient B , its 95% confidence interval, the Z -value and corresponding p -value to test that $B = 0$, and the standardized regression coefficient β .

Results

Stigma behaviors

For behaviors applicable to both conditions (General Behaviors), participants had the necessary physical contact (95.5%) and providers-in-training offered specific recommendations to the patient (79.5%). However, 47.7% manifested a condescending attitude towards the patients and less than half (40.9%) explained to the patient the purpose of the procedures to be conducted. For HIV/AIDS related behaviors, although 93.9% asked about HIV treatment adherence, only 45.5% informed patients about the need to carry out blood tests to examine CD4 cells and 27.3% to examine viral load.

Regarding drug related behaviors, lower back pain was one of the major symptoms revealed by the SP during the clinical encounter. Almost half the participants (48.5%) in the experimental case denied medication to treat the patient's pain complaint. Furthermore, only 22.7% explored if the patients were receiving treatment for their drug addiction. An important number of participants (25.8%) mentioned the need to abandon all drug use immediately without providing a treatment alternative. A more detailed description of these behaviors is presented in Table 2.

Comparison of general stigma behaviors across the two target conditions

Repeated measures analysis comparing the common cold control condition ($M=5.67$) to HIV drug user simulated patient condition ($M=6.41$) found a statistically significant difference in the two groups' means ($p=.047$), with a higher number of stigma behaviors being reported in the HIV drug user condition.

Correlates of HIV and drug use stigma behaviors

Given the significantly higher amount of stigmatizing behaviors occurring with an HIV drug using simulated patient, we sought to identify whether stigma attitudes, self-efficacy, and emotions could explain HIV or drug use stigma behaviors while controlling for participants' age, gender, and importance placed on religion. As shown in Table 3, none of these factors were associated with HIV-related stigmatizing behaviors (all $ps > .17$). However, negative emotions associated with drug use were positively associated with drug-related stigmatizing behaviors ($B = .56$, $p = .001$; $\beta = .30$) such that stigmatizing behaviors regarding drug use increased as negative emotions about drug use increased.

Discussion

Participants manifested behaviors that can be interpreted by PWHA as stigma laden. Such behaviors during the clinical encounter are worrisome, as they could potentially have negative consequences for the health of the patient. Significantly, stigma related behaviors were more frequently manifested in our HIV case than in our control scenario.

Our exploration of correlates of stigma related behaviors indicated that these were not explained by HIV/ AIDS-related information, self-efficacy to treat PWHA or HIV/AIDS stigma attitudes. Only negative emotions related to PWHA was associated with stigma related behaviors. This finding points towards the need to continue exploring the complexity

of stigma-related behaviors in clinical encounters, an intricate task. In research with health professionals, it has been tacitly assumed that those who hold negative attitudes towards HIV/AIDS will at some point manifest them behaviorally. This assumption omits exploration of other scenarios in which the link between HIV/AIDS stigma behaviors and the subsequent manifestation is not clear-cut. This may include physicians that hold stigma attitudes and yet are careful not to enact them. It may also include scenarios in which patients could interpret physicians' behaviors as manifestations of underlying stigma attitudes even when the provider may not hold such negative attitudes. Both scenarios point to a complex dynamic in the relation between HIV/AIDS stigma attitudes and behaviors, which needs to be further explored.

Results suggest the need to better educate physicians in training on the consequences of HIV/AIDS stigma on physician/patient interaction and the intricacies of how physician behaviors, even when not motivated by negative attitudes, may be interpreted by patients as stigma. The use of SPS technology is an ideal mechanism to deliver this type of stigma reduction training, as it is already available in medical schools and allows physicians to practice stigma free behaviors.

Our study design is limited by participants' awareness that SP actors were not actual PWHA and this may have influenced their behaviors. Furthermore, since they were being observed as part of the study they may have inhibited stigma behaviors that could be more salient in real world scenarios. Despite these limitations, our results point to the need for further research to unpack the links between stigmatizing attitudes, emotions, and behaviors.

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Table 1

Sample characteristics.

Variable	N	%
Age		
25	23	34.8
26	22	33.3
27	11	16.7
28	5	7.6
29	4	6.1
31	1	1.5
Gender		
Male	35	53.0
Female	31	47.0
National origin		
Puerto Rican	62	93.9
Dominican	1	1.5
Cuban	2	3.0
Other	1	1.5
Racial origin		
White	34	52.3
African-American	2	3.1
Native American	1	1.5
More than one race	28	43.1
Civil status		
Married	7	10.6
Single	47	71.2
Divorced	1	1.5
Living with a partner	11	16.7
Religious affiliation		
Catholic	37	56.1
Protestant	3	4.5
Episcopal	1	1.5
Santeria	1	1.5
None	21	31.8
Other	3	4.5
Religion importance		
Not important	14	21.2
Somewhat important	21	31.8
Important	18	27.3
Very important	13	19.7
Religious activities		
Do not participate	34	51.5

Variable	N	%
Weekly	12	18.2
Several times a month	6	9.1
Several times a year	14	21.2
Annual income		
< \$10,000	28	42.4
\$10,001– \$20,000	4	6.1
\$20,001– \$30,000	8	12.1
\$30,001– \$40,000	1	1.5
\$40,001– \$50,000	1	1.5
\$50,001– \$60,000	2	3.0
> \$60,000	20	30.3
Employment status		
Employed	1	1.5
Not employed	65	98.5
Ever tested for HIV		
Yes	47	71.2
No	14	21.2
Perception of risk of HIV infection		
Not at all	21	31.8
A little	31	47.0
A regular amount	7	10.6
Knew someone with HIV		
0	43	65.2
1	6	9.1
2	3	4.5
3	2	3.0
4	3	4.5
5	1	1.5
>5	6	9.1
Taken a class where HIV was discussed		
Yes	65	98.5
No	1	1.5

Note: Percentages and N's will not always sum 100% due to small amounts of missing data.

Table 2

Physician/patient interaction behaviors.

Variable	Not manifested		Manifested	
	N	%	N	%
<i>General behaviors</i>				
Did not answer patient's questions.	131	99.2	1	0.8
Showed a condescending attitude (i.e., infantilizing style).	69	52.3	63	47.7
Showed a condescending attitude (i.e., dictatorial style).	123	93.2	9	6.8
Used complex medical terms to explain the condition or treatment.	96	72.7	36	27.3
Explained the purpose of the procedure (i.e., physical examination).	78	59.1	54	40.9
Offered the patients specific treatment recommendations.	27	20.5	105	79.5
Explored the patient's social support sources.	113	85.6	19	14.4
Had the necessary physical contact.	6	4.5	126	95.5
Had little visual contact.	130	98.5	2	1.5
Shook the patient's hand to introduce himself/herself.	65	49.2	67	50.8
<i>HIV/AIDS related behaviors</i>				
Held the patient responsible for his infection.	65	98.5	1	1.5
Confused HIV and AIDS concepts.	62	93.9	4	6.1
Asked about HIV treatment adherence.	4	6.1	62	93.9
Informed patient about potential interactions between HIV medications and current treatment.	66	100.0	0	0.0
Informed patient about the need to carry out blood tests to examine viral load.	48	72.7	18	27.3
Informed patient about the need to carry out blood tests to examine CD4 cells.	36	54.5	30	45.5
Told the patient it was his responsibility to avoid infecting others.	49	74.2	17	25.8
Talked about social issues that could influence his condition.	59	89.4	7	10.6
Referred the patient to social services (i.e., government help, psychological services).	64	97.0	2	3.0
<i>Drug related behaviors</i>				
Explored if the patients was receiving drug addiction treatment.	51	77.3	15	22.7
Referred the patient to drug addiction treatment.	58	87.9	8	12.1
Mentioned the importance of starting or adhering to methadone treatment.	57	86.4	9	13.6
Mentioned that using methadone is the same as changing one drug for another.	66	100.0	0	0.0
Referred the patient to drug free treatment.	64	97.0	2	3.0
Mentioned the need to abandon all drug use.	49	74.2	17	25.8
Denied strong medication to treat pain.	34	51.5	32	48.5

Note: N's in the HIV/AIDS and drug use behaviors will not sum 132 as they were experimental conditions, thus only half of the sample ($n = 66$) was exposed.

Table 3
Multiple linear regression of HIV-related stigma behaviors and drug use-related stigma behaviors ($N = 66$).

Independent Variable	Dependent variable									
	HIV-related stigma behaviors					Drug use-related stigma behaviors				
	<i>B</i>	(95% CI)	<i>Z</i>	<i>p</i>	β	<i>B</i>	(95% CI)	<i>Z</i>	<i>p</i>	β
Stigma attitudes	-0.65	(-1.73, 0.43)	-1.18	.24	-0.19	-0.33	(-1.42, 0.76)	-0.59	.56	-0.09
Negative emotions	0.01	(-0.07, 0.08)	0.14	.89	0.02	0.56	(0.22, 0.91)	3.22	.001	0.30
Positive emotions	0.01	(-0.04, 0.07)	0.56	.58	0.07	-0.18	(-0.72, 0.35)	-0.66	.51	-0.08
Self-efficacy	-0.27	(-1.03, 0.50)	-0.69	.49	-0.08	-0.13	(-1.11, 0.85)	-0.26	.79	-0.04
Social desirability	-0.35	(-2.62, 1.93)	-0.30	.77	-0.04	1.00	(-1.20, 3.20)	0.89	.38	0.13
Gender	0.38	(-0.48, 1.22)	0.87	.38	0.10	0.68	(-0.29, 1.65)	1.37	.17	0.18
Age (years)	0.24	(-0.11, 0.60)	1.35	.18	0.16	-0.20	(-0.53, 0.14)	-1.15	.25	-0.13
Religion importance	-0.04	(-0.45, 0.38)	-0.17	.87	-0.02	0.06	(-0.35, 0.47)	0.29	.77	0.03
Constant	10.78	(5.02, 16.53)	3.67	<.001	5.81	6.59	(-0.22, 13.40)	1.90	.06	3.46

Notes: $N = 66$. *B* is the unstandardized regression coefficient; β is the standardized regression coefficient. Gender is coded 1 = male; 2 = female.