

# Perceived HIV-related Stigma and HIV Disclosure to Relationship Partners after Finding Out about the Seropositive Diagnosis

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## Abstract

The present study examined how perceived HIV-related stigma (how much HIV-infected persons believe that the public stigmatizes someone with HIV) influences both reasons for and against HIV disclosure and self-reports of HIV disclosure to a friend, intimate partner and a parent. The research participants were 145 men and women living with HIV. They were asked to recall when they first learned about their HIV diagnosis. Then they indicated how much specific reasons might have influenced disclosing or not disclosing about the HIV diagnosis to a friend, intimate partner and a parent. Findings, based on the total sample, indicated that perceived HIV-related stigma was associated with the endorsement of various reasons against disclosing to a friend and a parent, including concerns about self-blame, fear of rejection, communication difficulties and a desire to protect the other person. Perceived HIV-related stigma was not associated with the endorsement of any reasons for disclosing to a friend, intimate partner or a parent, including catharsis, test other's reactions, duty to inform/educate, similarity and a close/supportive relationship with the other. In addition, perceived HIV-related stigma predicted self-reports of disclosure to a parent but not to a friend or intimate partner. Specific reasons for and against self-disclosure predicted HIV disclosure based on the type of relationship with the potential disclosure recipient. The data analyses were also stratified by gender; these results were, with some exceptions, consistent with the findings with the total sample. The research introduces scales that quantify individuals' reasons for HIV disclosure and/or nondisclosure.

## Keywords

*HIV disclosure, perceived HIV-related stigma, reasons for and against HIV disclosure, significant others*

PEOPLE WHO ARE living with HIV must cope not only with fears about a potentially life-threatening and debilitating disease, but also with being the target of stigma. Despite extensive public education about the causes of HIV in the 1980s and 1990s, there is still widespread prejudice (e.g. rejection by friends and family, being shunned by people generally) associated with HIV (Crawford, 1996; Herek, 1999a, 1999b; Rozin, Markwith, & McCauley, 1994). Our article focuses on how perceived HIV-related stigma, as seen by individuals living with the disease, influences decision making about why and to whom to disclose about the HIV-positive diagnosis. In particular, we examine how the perception of HIV-related stigma influences the endorsement of reasons for and against HIV disclosure to friends, intimate partners and parents. We also examine how perceived HIV-related stigma, together with the endorsement of specific reasons for and against disclosure, influence self-reported HIV disclosure. This research is important because there is widespread stigma in the general public directed at persons with HIV and AIDS compared to other illnesses (Crawford, 1996; Herek, 1999a, 1999b), many persons with HIV perceive themselves to be stigmatized by the disease (Alonzo & Reynolds, 1995; Crandall & Coleman, 1992; Fife & Wright, 2000) and perceptions of HIV-related stigma are likely to influence decision making about who to tell about being HIV positive (e.g. Agne, Thompson, & Cusella, 2000; Lie & Biswalo, 1996; Limandri, 1989). Decisions about HIV disclosure, in turn, may affect physical and mental health (Pennebaker, 1995), access to social support (Serovich, Brucker, & Kimberly, 2000) and the risk for HIV transmission to sexual and needle-sharing partners (Kalichman, 2000; Melchert & Patterson, 1999; Stein, Freedberg, Sullivan, Savetsky, Levenson, Hingson, & Samet, 1998). First, we review the literature on perceptions of HIV-related stigma and HIV disclosure, and then we describe our research.

### Prior research on HIV-related stigma and HIV disclosure

There is a growing body of evidence that perceptions of stigma associated with HIV and AIDS may influence the psychosocial coping of individuals who are HIV positive. Fife and

Wright (2000), for instance, found that persons with HIV, compared to those living with cancer, suffered more social rejection, financial insecurity, internalized shame and social isolation due to their condition. HIV and cancer patients, who perceived more social rejection and social isolation linked to their illnesses, also had lower self-esteem. Miles, Burchinal, Holditch-Davis, Wasilewski and Christian (1997) conducted a related study about the effects of perceptions of HIV-related stigma on depression among women infected with HIV. The women provided ratings on an HIV stigma scale tapping items such as, 'Felt blamed by others for illness', 'Feared I would lose my job if someone found out' and 'Feared my family would reject me if they learned about my illness'. The greater the HIV stigma felt by the women, the greater their self-report of depressive symptoms such as loneliness, difficulty concentrating and problems with sleeping and eating.

Perceptions of HIV-related stigma may play a major role in decisions about HIV disclosure. Consider that negative attitudes toward HIV and AIDS have been closely linked with prejudice directed at homosexuals and bisexuals (Derlega, Sherburne, & Lewis, 1998; Herek & Capitanio, 1999; Pryor & Reeder, 1993). Gay and bisexual men with HIV, in anticipation of minimizing social rejection, are less likely to reveal their HIV infection to family, friends, lovers and employers who are unaware of their sexual orientation as opposed to those who know about it (Castro, Orozco, Eroza, Manca, Hernandez, & Aggleton, 1998; Marks, Bundek, Richardson, Ruiz, Maldonado, & Mason, 1992; Mason, Marks, Simoni, Ruiz, & Richardson, 1995; Simoni, Mason, & Marks, 1997).

Other research indicates that HIV stigma linked to homosexuality is associated with HIV disclosure. For instance, seropositive Hispanic men in the USA are especially likely to withhold information about their HIV status from their fathers in contrast to significant others such as their mothers, male or female friends and intimate partners (Marks et al., 1992; Mason et al., 1995). If Hispanic gay men perceive that their fathers value *machismo*, which incorporates strongly negative attitudes toward homosexuality and bisexuality, they may avoid revealing their seropositive status to these traditional fathers (Marks et al., 1992).

Concerns about HIV stigma and HIV disclosure are not limited to gay and bisexual men with HIV. The possible impact of perceived HIV-related stigma on disclosure of HIV seropositive status is reported regardless of how individuals may have contracted the HIV infection, including hemophiliacs (Markova, Wilkie, Naji, & Forbes, 1990; Norman, Kenndy, & Parish, 1998), homosexuals and bisexuals (Simoni et al., 1997), heterosexual women (Sowell, Lowenstein, Moneyham, Demi, Mizuno, & Seals, 1997) and serodiscordant heterosexual couples where one of the partners is HIV infected (Van Der Straten, Vernon, Knight, Gomez, & Padian, 1998). HIV stigma occurs world-wide and the perception of HIV-related stigma is likely to influence HIV decision making and social interactions at the various stages of HIV disease progression (Alonzo & Reynolds, 1995; Herek, 1999b; Leary & Schreindorfer, 1998; Lie & Biswalo, 1996; Limandri, 1989).

There is considerable research on whether or not HIV-infected persons reveal their seropositive status to others. However, relatively few studies focus on how the perception of HIV-related stigma influences HIV disclosure decision making, that is, the endorsement of reasons for and against disclosing to significant others. (For exceptions, see Hays, McKusick, Pollack, Hilliard, Hoff, & Coates, 1993; Mason et al., 1995; Stempel, Moulton, & Moss, 1995.)

Our qualitative (Derlega, Lovejoy, & Winstead, 1998) and quantitative (Derlega, Winstead, & Folk-Barron, 2000) research conducted among men and women with HIV in southeastern Virginia illustrates the range of reasons attributed for disclosing or not disclosing about one's HIV seropositive status to significant others. We found that reasons for disclosure included: *catharsis* or the opportunity to ventilate feelings by talking to someone and *seeking help* (focusing on the self); *duty to inform* the other and the *desire to educate* others about HIV and AIDS (focusing on the other); and being in an *emotionally close and supportive relationship* with someone, *similarity* with another person and a *desire to test someone's reactions* (focusing on the relationship). The reasons for nondisclosure included: *right to privacy*, *self-blame/self-concept difficulties*, *fear of rejection* (focusing on the self); *protecting the other person* (focusing on

the other); and a *superficial relationship* (focusing on the relationship). *Communication difficulty* was also a reason for nondisclosure; but it may involve self (e.g. 'I don't feel ready to disclose to anyone'), other ('I don't know how to tell this person') or relationship considerations ('There is something going on between us when we are together that makes it hard for me to disclose to him about my HIV status'). In our view, we can better understand the impact of perceived HIV-related stigma on HIV disclosure by examining the association between the perception of HIV-related stigma and how people rate the importance of these reasons in deciding whether or not to disclose about their HIV positive status.

The study is organized around a test of two research questions dealing with: the impact of perceived HIV-related stigma on reasons for and against HIV disclosure (Research Question 1), and the impact of perceived HIV-related stigma and reasons for and against disclosure on self-reports of HIV disclosure (Research Question 2). There is considerable evidence that decision making about HIV disclosure (Derlega et al., 1998; Hays et al., 1993; Marks et al., 1992; Mason et al., 1995) and the disclosure of stigmatizing conditions generally (Cioffi, 2000) occur in the context of specific relationships. We examined these research questions by asking research participants about HIV disclosure decisions with specific relationship targets, including a friend, intimate partner and a parent when they first learned about their diagnosis. Our research focuses on decision making about HIV disclosure *when individuals first found out about their HIV disease*.

*Research Question 1:* Does the perception of HIV-related stigma correlate with reasons for disclosure and nondisclosure to a friend, intimate partner or a parent?

Our first research question examines whether the perception of HIV-related stigma is associated with the endorsement of reasons for and against HIV disclosure to various target persons. Perceptions of HIV-related stigma may not be a salient issue in someone's mind when weighing some of the reasons for disclosing, such as catharsis or duty to inform. But perceptions of HIV-related stigma might be related to other reasons for disclosure, such as testing the other's

reactions ('Does the other person really like me or not after I tell her or him about my HIV diagnosis?') and the desire to educate as reasons for disclosure. If someone perceives that the public stigmatizes someone with HIV, they may disclose to find out if the other is still interested in being in a relationship or to educate them about living with HIV and/or AIDS.

The perception of HIV-related stigma may be a salient issue when weighing many of the reasons for *not* disclosing about the HIV diagnosis. Someone who perceives a high degree of HIV stigma might be particularly concerned about the negative ramifications of HIV disclosure for privacy, self-blame, fear of rejection, protecting the other, superficial relationships and communication difficulties. In particular, the association between the perception of high HIV-related stigma and the endorsement of reasons for not disclosing about the diagnosis may be stronger when a parent rather than a friend or intimate partner is the target person. Relationships with friends and intimate partners, compared to relationships with parents, are more likely to be voluntary and based on mutual trust, attraction, acceptance and common interests (Fehr, 1996; Rawlins, 1992). Stigma may have less impact on reasons for not disclosing in a voluntary relationship (friends, intimate partners) than in a relationship of mutual obligation (parents). Individuals who believe HIV is stigmatizing may be more concerned about how a parent would react to them or how a parent would be upset if he or she knew about the diagnosis.

**Research Question 2:** How are the perception of HIV-related stigma and the reasons for and against disclosure related to self-reports of HIV disclosure to a friend, intimate partner and a parent?

The research allows us to examine if the perception of HIV-related stigma, along with the endorsement of reasons for and against disclosure, are related to self-reports of HIV disclosure to a friend, intimate partner and a parent. The perception of HIV-related stigma in particular might be more negatively related to HIV disclosure in relationships with a parent than with a friend or intimate partner. The perception of HIV-related stigma may play a bigger role in HIV disclosure for involuntary

relationships (with parents) than in voluntary relationships (with friends and intimate partners).

## Method

### Participants

There were 145 participants in the study, including 105 men and 39 women. One person did not identify her or his sex. The participants were recruited from HIV and AIDS research sites and service organizations in Virginia ( $n = 45$ , 31.3 percent), North Carolina ( $n = 17$ , 11.8 percent), Ohio ( $n = 45$ , 31.3 percent) and Texas ( $n = 37$ , 25.7 percent). (This information was missing for one participant.) Each person was paid five dollars for participating in the study.

**Recruitment of research participants** The research was described individually to prospective participants by case managers at either HIV and AIDS service organizations in Virginia, Texas and North Carolina or by investigators at HIV and AIDS research sites in Texas and Ohio. The study was presented as a research project on 'Weighing the pros and cons about the HIV diagnosis to a relationship partner'. Prospective participants read the first page of the questionnaire that included the following rationale for the study.

There is much discussion about the 'pros' and 'cons' of disclosing information about being HIV positive to other people. That is, what are the benefits or concerns someone might have about disclosing this information? Very little is known, however, about the reasons people have for making these decisions. We are conducting a study to find out how people decided whether or not to tell significant others (including a romantic or sexual partner, a friend and a parent) about being HIV seropositive.

The completed questionnaires were sent, via prepaid mail, to the first author by the research participants. The instructions asked the participants not to provide their names when completing the questionnaires. Postage information was used to identify the research participants' geographic location. Participants were paid in cash at their local HIV and AIDS organization when they indicated to the case manager or research

director that they completed the questionnaire. The data collection occurred during 1998.

We did not ask the case managers or research directors at the HIV and AIDS organizations to keep a record of the number of individuals approached who actually participated in the research. Hence, we do not have information about the completion rate for filling out the questionnaires. Feedback from counselors suggests that the majority of those approached participated.

**Demographic information about the research sample** The average age for the male participants was 37.46 ( $SD = 7.42$ ), whereas the average age for the female participants was 35.31 ( $SD = 8.03$ ). This gender difference in ages was not significant,  $t(142) = 1.76$ , *ns*. For the combined sample the average age was 36.83 ( $SD = 7.62$ ). Among the male participants who described their race/ethnic identity, 38 (37.3 percent) were African American, 59 (57.8 percent) were Caucasian, two (2 percent) were Hispanic/Latino and three (2.9 percent) were 'other'. Among the female participants, 27 (69.2 percent) were African American, nine (23.1 percent) were Caucasian, two (5.1 percent) were Hispanic/Latino and one (2.6 percent) were 'other'. The association of gender with race/ethnicity was significant,  $\chi^2(3) = 14.34$ ,  $p < .01$ .

Males, on the average, had known about their HIV diagnosis for 86.54 months ( $SD = 51.47$ ), whereas females had known about their diagnosis for 62.57 months ( $SD = 48.32$ ),  $t(122) = 2.37$ ,  $p < .05$ . For the combined sample, research participants had known for an average of 79.77 months ( $SD = 51.56$ ) about their HIV positive diagnosis. Twenty-two (17.7 percent) of the research participants had known about their HIV diagnosis for less than two years, 27 (21.8 percent) for two through four years, 27 (21.8 percent) for five through seven years and 48 (38.7 percent) for eight or more years.

Among the male participants, 84 (80.8 percent) indicated they acquired the HIV infection via sexual relations, one (1.0 percent) from a blood transfusion, four (3.8 percent) from intravenous drug use and 15 (14.4 percent) didn't know. Among the female participants, 27 (71.1 percent) indicated they acquired the HIV infection via sexual relations, two (5.3 percent) from a blood transfusion, three (7.9 percent)

from intravenous drug use and six (15.8 percent) didn't know. The association of gender with mode of transmission was not significant,  $\chi^2(3) = 3.73$ , *ns*.

Participants were asked to describe their sexual orientation by selecting one of three categories: 'homosexual', 'heterosexual' or 'bisexual'. Among the male participants who described their sexual orientation, 79 (76.7 percent) identified themselves as homosexual, five (4.9 percent) as heterosexual and 19 (18.4 percent) as bisexual. Among the female participants, four (11.4 percent) identified themselves as homosexual, 30 (85.7 percent) as heterosexual and one (2.9 percent) as bisexual. The association of gender with sexual orientation was significant,  $\chi^2(2) = 90.23$ ,  $p < .001$ .

### Questionnaire format

The research questionnaire focused on HIV-decision making when the research participants first learned about their HIV diagnosis. We asked the participants to recall the time when they learned about their HIV positive status. Then individuals were asked in a counter-balanced order to rate their reasons for disclosing or not disclosing to a friend, an intimate partner and a parent. In identifying a 'friend' for the purposes of completing the questionnaire, participants were asked to 'think of a friend whom you knew very well when you learned about your HIV diagnosis'. In identifying an 'intimate partner', participants were asked to 'think of the first person with whom you started a romantic or dating or sexual relationship after you learned about the diagnosis or someone with whom you were in a romantic or dating or sexual relationship when you learned about your HIV diagnosis'. In identifying a 'parent', they were asked to 'think of one of your parents at the time when you learned about the HIV diagnosis'.

Participants completed two separate questionnaires focusing on their reasons for and against disclosing about their HIV positive status, after first learning about the diagnosis, to each of three target persons—their friend, intimate partner and parent. See Table 1 for a description of the statements in the questionnaires along with internal reliability estimates and the mean scores for the scales tapping particular reasons for and against disclosure.

The Reasons for Disclosure Questionnaire included 24 statements, measuring five reasons for disclosing:

1. catharsis (e.g. 'I didn't want to have to carry this information around inside me all by myself');
2. duty to inform/educate (e.g. 'I felt obligated

3. testing the other person's reactions (e.g. 'I wanted to see how my [friend] would feel about me after I told him or her');
4. close/supportive relationship (e.g. 'We had a close relationship'; 'My [friend] would be able to provide support'); and

Table 1. Statements tapping reasons for and against self-disclosure

Reasons for HIV Disclosure

<p>1. Catharsis</p> <p>I didn't want to have to carry this information around inside me all by myself I would be able to get the information off my chest It would be 'cathartic' (releasing pent-up feelings) to be able to tell my friend Cronbach's alphas: Friend, .81; Intimate Partner, .75; Parent, .80 Friend (<math>M = 3.51, SD = 1.32</math>); Intimate Partner (<math>M = 3.28, SD = 1.30</math>); Parent (<math>M = 3.39, SD = 1.34</math>)</p> <p>2. Duty to Inform/Educate</p> <p>I felt obligated to tell my friend I didn't want to risk any health problems for me or my friend This person had the right to know what is happening to me I felt a sense of duty to tell my friend I wanted to prepare my friend for what might happen to me I wanted to educate my friend about what the disease is like My goal was to teach my friend about the disease I wanted to make sure that my friend knew how serious this disease is Cronbach's alphas: Friend, .88; Intimate Partner, .88; Parent, .89 Friend (<math>M = 3.25, SD = 1.17</math>); Intimate Partner (<math>M = 3.65, SD = 1.08</math>); Parent (<math>M = 3.56, SD = 1.18</math>)</p> <p>3. Test the Other Person's Reactions</p> <p>I wanted to see how my friend would feel about me after I told him or her I wanted to find out if my friend still wanted to be with me after I told him or her I wanted to see how my friend would react when I told him or her the information Cronbach's alphas: Friend, .81; Intimate Partner, .77; Parent, .73 Friend (<math>M = 2.91, SD = 1.41</math>); Intimate Partner (<math>M = 3.18, SD = 1.37</math>); Parent (<math>M = 2.71, SD = 1.39</math>)</p> <p>4. Close/Supportive Relationship</p> <p>We loved one another We had a mutually supportive relationship We had a close relationship I trusted my friend My friend could be of help My friend would be able to provide support My friend would provide me with assistance Cronbach's alphas: Friend, .85; Intimate Partner, .90; Parent, .90 Friend (<math>M = 3.53, SD = 1.05</math>); Intimate Partner (<math>M = 3.42, SD = 1.21</math>); Parent (<math>M = 3.56, SD = 1.22</math>)</p> <p>5. Similarity</p> <p>We had a lot in common We both had similar types of experiences We tended to think alike about things Cronbach's alphas: Friend, .60; Intimate Partner, .69; Parent, .67 Friend (<math>M = 3.28, SD = 1.08</math>); Intimate Partner (<math>M = 3.23, SD = 1.21</math>); Parent (<math>M = 2.46, SD = 1.67</math>)</p>	<p>to tell my [friend]'; 'I want to make sure that my [friend] knew how serious this disease is');</p>
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Table 1. Continued

Reasons for Nondisclosure

<p>1. Privacy</p> <p>Some people have big mouths and my friend might go running around telling people Information about the diagnosis is my own private information I don't have to tell my friend if I don't want to I have a right to privacy Cronbach's alphas: Friend, .75; Intimate Partner, .78; Parent, .79 Friend (<math>M = 3.17, SD = 1.22</math>); Intimate Partner (<math>M = 2.83, SD = 1.28</math>); Parent (<math>M = 2.60, SD = 1.29</math>)</p> <p>2. Self-Blame/Self-Concept Difficulties</p> <p>I had difficulty accepting that I was HIV positive I felt ashamed about being HIV positive I felt bad about myself Cronbach's alphas: Friend, .85; Intimate Partner, .86; Parent, .84 Friend (<math>M = 2.92, SD = 1.45</math>); Intimate Partner (<math>M = 2.81, SD = 1.49</math>); Parent (<math>M = 2.82, SD = 1.47</math>)</p> <p>3. Communication Difficulties</p> <p>I would get tongue-tied when I tried to say what happened I didn't know how to start telling my friend about the diagnosis I didn't know how to put into words what happened to me I just couldn't figure out how to talk about the diagnosis Cronbach's alphas: Friend, .87; Intimate Partner, .88; Parent, .83 Friend (<math>M = 2.51, SD = 1.37</math>); Intimate Partner (<math>M = 2.52, SD = 1.34</math>); Parent (<math>M = 2.45, SD = 1.25</math>)</p> <p>4. Fear of Rejection</p> <p>I was concerned that my friend wouldn't understand what I was going through I worried that my friend would no longer like me if he or she knew about my HIV diagnosis I was concerned about how my friend would feel about me after hearing the information I didn't feel my friend would be supportive Cronbach's alphas: Friend, .81; Intimate Partner, .71; Parent, .77 Friend (<math>M = 2.72, SD = 1.24</math>); Intimate Partner (<math>M = 2.87, SD = 1.22</math>); Parent (<math>M = 2.53, SD = 1.22</math>)</p> <p>5. Protecting the Other</p> <p>I didn't want my friend to have to make sacrifices for me I didn't want to put my friend's life into an uproar I didn't want my friend to worry about me I didn't want my friend to experience any pain over things I was going through Cronbach's alphas: Friend, .84; Intimate Partner, .81; Parent, .91 Friend (<math>M = 2.81, SD = 1.31</math>); Intimate Partner (<math>M = 2.86, SD = 1.32</math>); Parent (<math>M = 3.25, SD = 1.46</math>)</p> <p>6. Superficial Relationship</p> <p>My friend didn't know me very well Our relationship wasn't very serious We weren't very close to one another Our relationship was pretty casual Cronbach's alphas: Friend, .76; Intimate Partner, .77; Parent, .81 Friend (<math>M = 2.46, SD = 1.14</math>); Intimate Partner (<math>M = 2.42, SD = 1.15</math>); Parent (<math>M = 2.10, SD = 1.17</math>)</p>	<p>to tell my [friend]'; 'I want to make sure that my [friend] knew how serious this disease is');</p>
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Note: Research participants completed three versions of this questionnaire, with friend, intimate partner and a parent as target persons. This version illustrated the statements with a friend as target person. Research participants in the study rated how much each reason may have influenced whether or not they disclosed to a particular target person. The means and standard deviations are based on the endorsement of reasons for HIV disclosure and nondisclosure on a five-point continuum, ranging from 1 ('not at all a factor') to 5 ('very likely a factor')

Continued

5. similarity (e.g. 'We had a lot in common', 'We both had similar types of experiences').

Separate scales were initially constructed to measure 'closeness and emotional support' and 'help', as well as to measure the 'duty to inform' and the 'desire to educate'. However, a preliminary analysis indicated high correlations between the 'closeness and emotional support' and the 'help' scales as well as between the 'duty to inform' and the 'desire to educate' categories, regardless of the target person being a friend, intimate partner or parent. Hence, we combined the items from the 'closeness and emotional support' and the 'help' scales into a single scale—the 'close/supportive' reason scale, and the items from 'duty to inform' and 'desire to educate' into the 'duty to inform/educate' scale.

The Reasons for Nondisclosure Questionnaire had 23 items measuring six reasons for not disclosing:

1. privacy (e.g. 'Information about the diagnosis is my own private information');
2. self-blame/self-concept difficulties (e.g. 'I felt ashamed about being HIV positive');
3. communication difficulties (e.g. 'I would get tongue-tied when I tried to say what happened');
4. fear of rejection (e.g. 'I was concerned about how my [friend] would feel about me after hearing the information');
5. protecting the other (e.g. 'I didn't want to put my [friend's] life into an uproar'); and
6. superficial relationship (e.g. 'We weren't very close to one another').

Participants rated how much the various reasons influenced disclosing about the HIV diagnosis to the various target persons on a five-point continuum, ranging from 1 ('not at all') to 5 ('very likely'). Cronbach's alphas computed for the scales tapping various reasons for and against self-disclosure were mostly in the .70s and .80s, indicating acceptable reliabilities. The lowest alphas were for the similarity subscales, which were in the .60s.

Along with completing the questionnaires about the reasons for and against HIV disclosure to the relationship partners when research participants learned about their HIV, we also asked research participants if they had told the friend, intimate partner and the parent

about being HIV positive. They answered either 'Yes', 'No' or 'Not Sure'.

Participants also completed a 24-item, perceived HIV-related stigma scale, constructed by Bauman, Camacho, Forbes-Jones and Westbrook (1997), measuring how much they believed that the public stigmatized someone with HIV or AIDS. Participants read the following: 'The general public has a wide range of beliefs about people who have AIDS or HIV. Here is a list of some examples of these beliefs and attitudes'. Then they indicated, on a five-point scale, ranging from 1 ('strongly agree') to 5 ('strongly disagree'), how much they agreed or disagreed with various statements about 'What do you think *other* people's beliefs and attitudes are about HIV?'. We reversed the scoring of the stigma scale in the data analyses so that higher scores on the perceived HIV-related stigma scale represent a higher belief that the public stigmatizes someone with HIV. Typical items included: 'Most people believe that if you have HIV, you must have done something to deserve it', 'Most people feel that how you get HIV is something to be ashamed about' and 'Most people think that people with HIV are of good moral character' (R). The Cronbach's alpha for the perceived HIV-related stigma scale was .89. The average score for the combined sample on the stigma scale was 3.34 ( $SD = .65$ ). The minimum score was 1.58, and the maximum score was 5.00. There was no significant difference between the male (Mean = 3.30,  $SD = .66$ ) and the female (Mean = 3.44,  $SD = .61$ ) research participants in their scores on the perceived HIV-related stigma scale,  $t(142) = -1.142, ns$ .

## Results

### *Gender effects on endorsement of reasons for and against HIV disclosure*

Before reporting the results for the research questions, it is worthwhile noting that some gender differences occurred in endorsing various reasons for and against HIV disclosure. Among the reasons for HIV disclosure, there were six statistically significant effects out of a total of 15 comparisons as a function of the research participant's gender. In these significant comparisons, females were always more likely than males to endorse a particular reason

for HIV disclosure. Females were more likely than males to endorse catharsis as a reason for disclosing to a friend (Mean = 4.04,  $SD = 1.09$ , versus Mean = 3.32,  $SD = 1.34$ ,  $t(140) = -3.00, p < .01$ ), an intimate partner (Mean = 3.86,  $SD = 1.09$ , versus Mean = 3.06,  $SD = 1.31$ ,  $t(134) = -3.32, p < .01$ ) and a parent (Mean = 3.78,  $SD = 1.24$ , versus Mean = 3.25,  $SD = 1.35$ ,  $t(120) = -2.00, p < .05$ ). Females were more likely than males to endorse testing the other's reactions as a reason for disclosure to a friend (Mean = 3.48,  $SD = 1.45$ , versus Mean = 2.71,  $SD = 1.34$ ,  $t(140) = -3.00, p < .01$ ) and an intimate partner (Mean = 3.58,  $SD = 1.22$ , versus Mean = 3.05,  $SD = 1.41$ ,  $t(135) = -2.02, p < .05$ ); however, there was no significant difference between the females and the males in the endorsement of testing the other's reactions for disclosure to a parent. Also, females were more likely than males to endorse similarity as a reason for disclosing to a parent (Mean = 2.85,  $SD = 1.09$ , versus Mean = 2.29,  $SD = 1.17$ ,  $t(121) = -2.43, p < .01$ ). There were no gender differences in the endorsement of duty to inform/educate and close/supportive relationship as reasons for HIV disclosure for any relationship target.

Among the reasons for not disclosing, there were seven statistical significant effects out of a total of 18 possible comparisons as a function of the participants' gender. In these significant comparisons, females were always more likely than males to endorse a particular reason for not disclosing. Females were more likely than males to endorse self-blame/self-concept difficulties as a reason for not disclosing to a parent (Mean = 3.36,  $SD = 1.42$ , versus Mean = 2.60,  $SD = 1.44$ ,  $t(122) = -2.67, p < .01$ ) but not to a friend or an intimate partner. Females were also more likely to endorse fear of rejection as a reason for not disclosing to an intimate partner (Mean = 3.22,  $SD = 1.27$ , versus Mean = 2.74,  $SD = 1.18$ ,  $t(128) = -2.01, p < .05$ ), but not to a friend or a parent. Females were more likely than males to endorse communication difficulty as a reason for not disclosing to each of the relationship targets: friend (Mean = 3.12,  $SD = 1.40$ , versus Mean = 2.27,  $SD = 1.30$ ,  $t(138) = -3.42, p < .01$ ); intimate partner (Mean = 3.03,  $SD = 1.35$ , versus Mean = 2.34,  $SD = 1.30$ ,  $t(129) = -2.69, p < .01$ ); and parent (Mean = 2.99,  $SD = 1.26$ , versus Mean = 2.225,  $SD = 1.19$ ,  $t(122) = -3.06, p < .01$ ). Females were also more likely to endorse protecting the other for not

disclosing to a parent (Mean = 3.82,  $SD = 1.22$ , versus Mean = 3.02,  $SD = 1.50$ ,  $t(122) = -2.80, p < .01$ ) but not to a friend or an intimate partner. There was no gender difference in the endorsement of superficial relationship as a reason for not disclosing for any relationship target.

We did not predict that gender would moderate the findings associated with the first and second research questions. However, given the gender differences in the endorsement of reasons for and against HIV disclosure as well as the demographic differences between males and females on race/ethnicity, length of time living with HIV and sexual orientation, we report the tests of the research questions for the combined sample and separately for the male and female research participants.

### *Research Question 1: Does perceived HIV-related stigma correlate with reasons for and against disclosure to a friend, intimate partner or a parent?*

Bivariate correlations were computed between the perceived HIV-related stigma scores and the endorsement of reasons for and against disclosure for a friend, intimate partner and parent, respectively. (Note that  $p < .05$  was chosen as the level of statistical significance for these analyses.) These analyses are reported for the combined sample and for the male and female research participants. There were no significant correlations between perceived HIV-related stigma and the reasons for disclosure, regardless of the disclosure target: friend, intimate partner or parent. These results held for the combined sample, the male participants and the female participants. On the other hand, there were a number of significant correlations of perceived HIV-related stigma with the endorsement of reasons for nondisclosure. See Table 2.

With a friend as the target person, using the combined sample's data, the greater the perceived HIV-related stigma, the greater the endorsement of self-blame, fear of rejection, communication difficulties and protecting the other as reasons for nondisclosure. For the males the positive correlation between greater perceived stigma and greater endorsement of self-blame was also significant and, albeit non-significant, in the same direction for the females. For the males there was a positive correlation of

Table 2. Bivariate correlations between perceived HIV-related stigma and reasons for not disclosing to a friend, intimate partner and parent

	Friend			Intimate partner			Parent		
	Total Sample	Males	Females	Total Sample	Males	Females	Total Sample	Males	Females
Privacy	.115 (141)	.219* (101)	-.274 (39)	-.007 (131)	.000 (94)	-.058 (36)	.114 (125)	.232* (89)	-.212 (35)
Self-blame	.221** (141)	.203* (101)	.253 (39)	-.141 (130)	.135 (94)	.134 (35)	-.409** (125)	.335** (89)	.550** (35)
Fear of rejection	.164* (141)	.194 (101)	.049 (39)	-.017 (131)	.008 (94)	-.019 (36)	.273** (125)	.265* (89)	.283 (35)
Communication difficulty	.154* (141)	.131 (101)	.150 (39)	-.000 (132)	-.066 (95)	.097 (36)	.253** (125)	.166 (89)	.452** (35)
Protecting other	.156* (141)	.122 (101)	.197 (39)	-.025 (131)	-.024 (94)	.126 (36)	.363** (125)	.340** (89)	.421* (35)
Superficial relationship	.032 (141)	.016 (101)	.062 (39)	-.131 (131)	-.126 (94)	-.217 (36)	-.012 (125)	-.078 (89)	-.203 (35)

Note: Results are presented for the total sample, male research participants, and female participants. The number of research participants used in computing each bivariate correlation is in parentheses. \* $p < .05$ ; \*\* $p < .01$ .

perceived stigma with endorsement of privacy as a reason for nondisclosure; for the females, greater perceived stigma was associated, albeit nonsignificantly, with a lower endorsement of privacy as a reason for not disclosing.

With a parent as the target, using the combined sample's data, the same significant correlations as occurred with the combined sample's data on the friend as the target person, were observed. Perceived HIV-related stigma was positively correlated with the endorsement of self-blame, fear of rejection, communication difficulties and protecting the other as reasons for not disclosing. These correlations between perceived HIV-related stigma and reasons for nondisclosure were generally higher with the parent than the friend as target.

The positive correlation between perceived HIV-related stigma and self-blame as a reason for not disclosing to a parent was also replicated separately with the male and female research participants. The positive correlation between perceived stigma and protecting the other as a reason for not disclosing to a parent was also replicated separately with the male and female participants. For males, the positive correlation between perceived HIV-related stigma and fear of rejection was also significant; for females, this correlation was in a positive direction but it was not significant. The positive correlation between perceived HIV-related stigma and communication difficulty was statistically significant for the females but not for the males. For the males there was a positive correlation between perceived HIV stigma and privacy as a reason for not disclosing to a parent; for the females, this correlation was negative, albeit nonsignificant.

There were no significant correlations between perceived HIV-related stigma and the endorsement of reasons for nondisclosure with an intimate partner based on the combined sample, the male participants or the female participants.

**Research Question 2: How are perceived HIV-related stigma and the reasons for and against disclosure related to self-reports of HIV disclosure to a friend, intimate partner and a parent?**

We asked research participants in the questionnaire to think about the time when they learned

about the HIV diagnosis and if they recalled disclosing this information to a friend, intimate partner and parent. A majority of the participants reporting disclosing to each of these target persons, and the pattern of disclosure was similar for both the male and female participants. Eighty-four (80 percent) male participants and 26 (70.3 percent) female participants reported disclosing about the HIV diagnosis to their friend, whereas 18 (17.1 percent) male participants and nine (24.3 percent) female participants reported not disclosing to their friend; three (2.9 percent) male participants and two (5.4 percent) female participants were not sure ( $\chi^2(2) = 1.58, ns$ ). Seventy-two (71.3 percent) male participants and 21 (60 percent) female participants reported disclosing to their intimate partner, whereas 23 (22.8 percent) male participants and 12 (34.3 percent) female participants reported not disclosing to their intimate partner; six (5.9 percent) male participants and two (5.7 percent) female participants were not sure ( $\chi^2(2) = 1.83, ns$ ). Sixty-five (71.4 percent) male participants and 20 (55.6 percent) female participants reported disclosing to their parent, whereas 24 (26.4 percent) male participants and 13 (36.1 percent) female participants reported not disclosing to their parent; two (2.2 percent) male participants and three (8.3 percent) female participants were not sure ( $\chi^2(2) = 4.28, ns$ ).

We used logistical regression to examine the effects of perceived HIV-related stigma and the endorsement of reasons for and against disclosure on self-reported disclosure to the various target persons. Using the combined sample, six separate logistical regressions were conducted. Three models—run separately for friend, intimate partner and parent, respectively—used HIV stigma and the five scales tapping the reasons for disclosure (including catharsis, duty to tell/educate, close relationship, similarity and testing other's reactions) as the predictor variables. The dichotomous dependent measure was participants' self-report of HIV disclosure ('Yes' = 1; 'No' or 'Not Sure' = 0). See Table 3. Another three models—again run separately for friend, intimate partner and parent, respectively—used HIV stigma and the six scales tapping the reasons for nondisclosure (including privacy, self-blame, fear of rejection, communication difficulties, protecting the other and superficial relationship) as the predictor variables. See

Table 4. A summary of these same analyses that were run separately for the male and female participants is given in footnote 3. The results of the logistical analyses for the male sample overlapped considerably with the findings from the total sample; and the logistical analyses for the females were mostly nonsignificant, which reflects in part the small power associated with the logistical analyses of the females' data.<sup>3</sup>

Based on the combined sample, the logistical models testing the effects of perceived HIV-related stigma and the reasons for disclosure on HIV disclosure (see Table 3) revealed that only

close/supportive relationship was a significant predictor of self-reported HIV disclosure with the friend and the intimate partner as the target persons. There was a higher likelihood of disclosing to a friend or an intimate partner if someone indicated that a close/supportive relationship was influential in their decision to disclose to these target persons. With the parent as the target person, both perceived HIV-related stigma and duty to inform/educate were significantly associated with HIV disclosure. There was a higher likelihood of disclosing to a parent if someone perceived lower HIV-related stigma

and they indicated that duty to inform/educate was highly influential in their decision to disclose to the parent.

Using the combined sample, the logistical models testing the effects of perceived HIV-related stigma and the reasons for nondisclosure (Table 4) revealed that only protecting the other was significantly associated with HIV disclosure with a friend. There was a lower likelihood of disclosing to a friend if someone indicated that a desire to protect was influential in the decision to not disclose to this friend. Both privacy and communication difficulty were significantly associated with disclosure with an intimate partner. There was a lower likelihood of disclosing to an intimate partner if privacy and communication difficulties were endorsed as influential in the decision to not disclose to this intimate partner. With the parent as the target person, both perceived HIV-related stigma and communication difficulty, as predictor variables, were negatively associated with HIV disclosure.

**Discussion**

Based on the data analyses with the entire sample, the perception of HIV-related stigma was related to the endorsement of reasons against HIV disclosure to certain relationship partners. With a friend and a parent as the possible disclosure targets, the greater the belief that the public stigmatizes someone with HIV, the greater the endorsement of self-blame, fear of rejection, communication difficulties and protecting the other as reasons for not disclosing to them about the diagnosis. Also, perception of HIV-related stigma predicted disclosure to the parent, but not to the friend or intimate partner. We will consider the effects of stigma on weighing reasons for and against disclosure (Research Question 1), and then the effects of HIV stigma and reasons for and against HIV disclosure on self-reported disclosure (Research Question 2).

For the entire sample of research participants, a heightened perception of HIV-related stigma was associated with greater sensitivity to the potential negative consequences of disclosing to a friend or parent. Perceived HIV stigma was associated with beliefs that there might be negative consequences of disclosure, not only for oneself (fear of rejection) but also for others (need to protect other). Perceived HIV stigma

was also associated with self-blame and a belief that telling others would be difficult. It is worthwhile noting that the size of correlations between HIV stigma and endorsement of reasons for not disclosing was generally higher for the parent than the friend. The higher association between perceived HIV stigma and endorsement of reasons for not disclosing for parents versus friends is consistent with the notion that the perception of HIV-related stigma plays a larger role in HIV decision making in involuntary (based on obligation) relationships than in voluntary relationships (based on trust and attraction). The absence of any association between HIV and reasons for and against disclosure with an intimate partner (another example of a voluntary relationship) also supports this notion. It may be that when individuals achieve a high level of trust and affection with their partners (which we assume is more likely to occur in voluntary relationships between friends and intimate partners), they are less affected by and/or more tolerant of a potentially stigmatizing characteristic in one another (see Gaines, 2001; Levinger, 1980; Levinger & Snoek, 1972).

The perception of HIV-related stigma was not correlated with any of the reasons for HIV disclosure in the data analyses. We had speculated in the introduction that the perception of HIV-related stigma might be associated with the endorsement of testing the other's reactions and duty to inform/educate as reasons for HIV disclosure to relationship targets. But this association did not occur. Perhaps the perception of HIV-related stigma has more impact on testing others' reactions and duty to inform/educate when individuals are still becoming acquainted than when they know one another quite well. The impact of acquaintance (e.g. length of time in a relationship, degree of attraction and love) on the association between perception of HIV-related stigma and disclosure decision making deserves additional research.

For the combined sample, the perception of HIV-related stigma was negatively associated with HIV disclosure to a parent, but it was not associated with disclosure to a friend or an intimate partner. If HIV-infected persons believed that society shunned or stigmatized someone with HIV, then they were less likely to report disclosing about their own diagnosis to a parent.

Table 3. Logistical regressions predicting HIV disclosure to a friend, intimate partner and parent based on perceived HIV-related stigma and endorsement of reasons for disclosing

Predictor variables	B coefficients (S.E.)		
	Friend as target	Intimate partner as target	Parent as target
Perceived HIV-related stigma	-.635 (.364)	-.214 (.317)	-1.349** (.400)
Catharsis	-.218 (.222)	-.205 (.208)	-.090 (.227)
Test other's reactions	-.336 (.225)	.171 (.211)	-.149 (.201)
Duty/educate	.037 (.335)	.057 (.297)	1.026** (.364)
Similarity	-.151 (.251)	.046 (.216)	.159 (.244)
Close/supportive relationship	.985** (.339)	.680* (.284)	-.262 (.319)
Nagelkerke R <sup>2</sup> =	.195	.189	.316
Model χ <sup>2</sup> (6 df) =	18.795;	19.093;	30.689;
	p < .01	p < .01	p < .001

Note: Nagelkerke R<sup>2</sup> is a 'pseudo' R<sup>2</sup> measure of variance accounted for by each model, analogous to R<sup>2</sup> in multiple regression, with a maximum value of one  
\*\*p < .01

Table 4. Logistical regressions predicting HIV disclosure to a friend, intimate partner and parent based on perceived HIV-related stigma and endorsement of reasons for not disclosing

Predictor variables	B coefficients (S.E.)		
	Friend as target	Intimate partner as target	Parent as target
Perceived HIV-related stigma	-.558 (.385)	-.063 (.347)	-1.223** (.385)
Privacy	-.273 (.261)	-.912** (.236)	-.307 (.224)
Self-blame	.365 (.231)	.231 (.208)	.176 (.236)
Fear of rejection	-.600 (.341)	.176 (.297)	.191 (.309)
Communication difficulty	-.239 (.256)	-.790** (.267)	-.715* (.282)
Protecting the other	-.654* (.264)	.398 (.228)	.082 (.216)
Superficial relationship	-.443 (.280)	.313 (.247)	.100 (.260)
Nagelkerke R <sup>2</sup> =	.331	.291	.270
Model χ <sup>2</sup> (7 df) =	33.952	29.805	26.339
	p < .001	p < .001	p < .001

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

On the other hand, the perception of HIV-related stigma was not significantly associated with self-reported disclosure to a friend or intimate partner. Given the view that friendships and intimate relations, compared to parent-child relations, are more likely to be freely chosen and based on mutual attraction (Fehr, 1996; Gaines, 2001; Levinger, 1980; Rawlins, 1994), then the perception of HIV-related stigma may play a lesser role in these relationships than in relationships with a parent.

We found, based on the combined sample, that endorsement of the close/supportive nature of the relationship with a friend or intimate partner as a reason for disclosure was associated with reported HIV disclosure to these target persons. These findings are consistent with the view that emotional closeness is particularly important for HIV disclosure in voluntary (friends and intimate partners) relationships where mutual attraction may be an important relationship factor. On the other hand, the endorsement of duty to inform/educate as a reason for disclosure was only associated with self-reported HIV disclosure to a parent. This finding is consistent with the view that a sense of obligation is an important motivator for HIV disclosure in involuntary relationships. Adherence to culturally defined prescriptions about 'a family's right to know' may be salient in interactions with a parent (Derlega et al., 1998; Greene & Serovich, 1996).

In the combined sample, the desire to protect someone from having to worry was a significant factor in not disclosing to a friend, but it played no role in disclosing to a parent or an intimate partner. The more individuals felt that they did not want to burden their friend, the less likely they were to disclose to him or her. On the other hand, concern about privacy was a factor in not disclosing to an intimate partner but it was not associated with disclosing to a friend or a parent. Thus, concerns about burdening someone and one's right to privacy influenced self-reports of HIV disclosure based on the type of relationship. It would be useful to conduct additional research on expectations and obligations associated with various kinds of close relationships, and how they affect self-disclosure and support seeking in coping with illness (see Greene & Serovich, 1996; Serovich, Kimberly, & Greene, 1998).

Examining the results in the context of the type of relationship, the self-report of HIV disclosure to an intimate partner may be affected by tensions between closeness and the need for privacy. Greater feelings of closeness are related to a higher likelihood of HIV disclosure, but concerns about privacy are related to a lower likelihood of disclosure. The tensions between interdependence (wanting to get closer to someone) and independence (wanting to maintain one's autonomy) that occur in intimate relationships (Montgomery & Baxter, 1998; Rawlins, 1992) also influence whether information about one's HIV status is shared with an intimate partner. The perception of HIV-related stigma did not influence reasons for or against disclosure or the likelihood of disclosure with an intimate partner. In an intimate relationship (defined in our study as being with a romantic, dating or sexual partner) one may be less concerned about how the larger public views HIV and AIDS.

With a friend as the relationship target, perceived HIV-related stigma did influence the endorsement of reasons, not *for* disclosing, but *for not* disclosing. Perceived HIV-related stigma heightened the weight given to self-blame, fear of rejection, communication difficulty and protecting the other in considering not disclosing. In predicting self-reports of HIV disclosure to a friend, there was no association between HIV-related stigma and self-reports of HIV disclosure to a friend. But the endorsement of closeness was a positive predictor of HIV disclosure and protecting the other was a negative predictor of HIV disclosure to a friend. These results suggest that the perception of HIV-related stigma *per se* may not necessarily influence HIV disclosure with a friend, but the perception of HIV stigma increases concerns about the possible negative consequences of disclosure to this relationship target. It seemed, based on our results, that individuals were calculating how their friends might react to the discovery of the HIV diagnosis, perhaps not disclosing to them if there was a perceived need to protect their friends from the distress of knowing about the diagnosis.

Endorsement of reasons for not disclosing and self-reported HIV disclosure itself were most strongly correlated with the perception of HIV-related stigma with a parent as the relationship

target. Perception of HIV stigma, in the combined sample, was strongly related to endorsing self-blame, fear of rejection, communication difficulty and protecting the other as reasons considered for not disclosing. Perception of HIV-related stigma was also a negative predictor of disclosure to a parent, whereas duty to inform/desire to educate was a positive predictor. These results suggest that disclosing to a parent is affected by both feelings of need and obligation and a concern about the public perception of HIV as a factor influencing their parent's reaction to information about the diagnosis. A person living with HIV may or may not be in a close relationship with a parent and the possibility of parents having a judgmental as opposed to supportive reaction is a theme in qualitative data on self-disclosure (Castro et al., 1998; Derlega et al., 1998; Diaz, 1998; Winstead, Derlega, Barbee, Sachdev, Antle, & Greene, 2000).

Our discussion has focused largely on the results obtained for the total sample of research participants. But the pattern of correlations based on the male and female samples and the logistical analyses (the latter with the larger sample of males) are mostly consistent with the major findings. It is important that our results be replicated with larger samples of men and women, but the findings suggest that there was a lot in common in how the men and women coped with the perception of HIV-related stigma in weighing decisions about HIV disclosure and nondisclosure. On the other hand, there was an interesting difference between the male and female participants incorporating privacy as a possible reason for not disclosing to a friend and parent. In the correlations between the perception of HIV-related stigma and the endorsement of privacy as a reason for not disclosing, this association was positive and statistically significant for the males with a friend and parent as the relationship targets. However, this association was negative (albeit not significant) for the females with a friend and parent as the relationship targets. The perception of HIV stigma may have increased the men's concerns about their right to privacy as a reason for not disclosing to a friend or parent. Conversely, the perception of HIV stigma may have undermined the women's belief about their right to privacy as a reason for not disclosing to these relationship targets. We

also found, based on the logistical analyses, that the endorsement of privacy was negatively related to HIV disclosure to a parent for the male participants. However, privacy was not related to HIV disclosure to a parent for the female or the combined sample. This finding suggests that, particularly for the male research participants, concerns about privacy with a parent inhibit HIV disclosure.

There are undoubtedly many differences in the issues faced by men and women who are living with HIV that deserve attention in future research on the perception of HIV-related stigma and decision making about HIV disclosure. For instance, in our sample most of the men identified themselves as homosexual or bisexual, and most of the women identified themselves as heterosexual. It is inevitable that the stigma that society places on homosexuality and bisexuality will add to the stress that many gay and bisexual men experience with HIV-related stigma (Herek & Capitanio, 1999). But being gay or bisexual may also offer advantages in coping with HIV stigma that might not be available to men and women who self-identify as heterosexual. For instance, gay-identified men with HIV may perceive that they have access to support from similar others in the gay community; whereas there may be much less perceived support among heterosexual HIV-infected women and men (Collins, 1998). Gay-identified individuals involved in close relationships with other gay-identified individuals may assume that these relationship targets are less likely to devalue them because of the HIV diagnosis.

Limitations of the present research must be noted. We asked individuals to remember what factors influenced self-disclosure decision making when they first learned about the diagnosis. The average participant had been living with HIV for a number of years, and there may be some distortion in their recall about to whom and why they disclosed about the HIV diagnosis. Also, participants' ratings of HIV-related stigma were based on their current impressions. Ideally, we would contact research participants when they first learned about their seropositive test results. It is only in a prospective study that we could draw firm conclusions about the causal effects of HIV stigma and endorsement of reasons for and against disclosure on HIV



disclosure. The scales tapping reasons for and against HIV self-disclosure are by no means exhaustive. For instance, we did not consider the impact of situational factors influencing decisions to disclose or not disclose. The role of situational factors influencing HIV disclosure was negligible in our interview research (Derlega et al., 1998). Nevertheless, we need to conduct additional research on the range of reasons that might be generated for HIV disclosure and how it contributes to HIV disclosure.

Despite the limitations, our research documented that the perception of HIV-related stigma is significantly associated with how much individuals weigh personal- (e.g. self-blame, fear of rejection, difficulty communicating) and other-related (e.g. protecting the other) as reasons for not disclosing to a friend or a parent. On the other hand, the perception of HIV stigma is not associated with how much individuals endorse reasons for disclosing to significant others—regardless of type of relationship. We also found that the perception of HIV stigma is strongly associated with self-reported HIV disclosure to a parent, but it is not associated with HIV disclosure to a friend or an intimate partner. Overall, we can conclude that—depending on the relationship target—the perception of HIV-related stigma shapes people's negative concerns about what might happen if they disclose; and the perception of HIV stigma and reasons for or against disclosure may affect whether or not someone actually discloses their diagnosis.

A final observation: perceptions of HIV-related stigma inhibit HIV self-disclosure to parents, leaving individuals with HIV reliant on others to provide social support and caretaking. Nondisclosure about the HIV diagnosis to a parent because of perceptions of stigma shields parents from being upset and reduces the risk of personal rejection but it may also decrease access to support. Individuals reluctant to disclose to parents might usefully examine the impact of stigma in their decisions. If parents cannot be trusted to receive information about HIV, then other sources of support and caretaking need to be identified.

## Notes

1. Demographic and other analyses are not always based on the total number of male and female research participants in the study because of missing data.
2. It is worth noting that male, compared to female, participants were significantly more likely to identify mother than father as the 'parent' they were focusing on in completing the survey,  $\chi^2(2) = 7.02, p < .05$ . Seventy-eight (87.6 percent) male participants and 23 (67.6 percent) female participants focused on their mother, whereas nine (10.1 percent) male participants and eight (23.5 percent) female participants focused on their father. Two (2.2 percent) male participants and three (8.8 percent) female participants focused on both their parents. However, there was no statistically significant effect of type of parent (father, mother or both) on self-reports of HIV disclosure to a parent for the male or the female participants.
3. The logistical analyses were run separately for the male and the female participants. For the females, all but one of the logistical models were not statistically significant. The one exception was based on perceived HIV-related disclosure and the reasons for not disclosing on HIV disclosure to an intimate partner as the predictor variables. But none of the predictor variables by themselves in this model was significantly associated with HIV disclosure. The logistical analyses for the female sample were based on a small sample, which reduced the power of these analyses. For the males, all six of the logistical models were significant. The models testing perceived HIV-related stigma along with reasons for HIV disclosure on HIV disclosure with the friend, intimate partner and parent as the target persons matched the results from the same logistical analyses for the combined sample reported in Table 3. Also, the model testing perceived HIV-related stigma along with reasons for not disclosing with the friend on HIV disclosure matched the results for the combined sample reported in Table 4. With the intimate partner as target, endorsement of privacy and protecting the other negatively predicted HIV disclosure. With the parent as target, perceived HIV-related stigma and endorsement of privacy both negatively predicted HIV disclosure.

## References

- Agne, R. R., Thompson, T. L., & Cusella, L. P. (2000). Stigma in the line of face: Self-disclosure of patients' HIV status to health care providers. *Journal of Applied Communication Research, 28*, 235–261.
- Alonzo, A. A., & Reynolds, N. R. (1995). Stigma, HIV

- and AIDS: An exploration and elaboration of a stigma trajectory. *Social Science and Medicine, 41*, 303–315.
- Bauman, L. J., Camacho, S., Forbes-Jones, E., & Westbrook, L. (1997). Correlates of personal and social stigma among women with HIV/AIDS. Paper presented at the annual meeting of the National Conference on Women and AIDS, Los Angeles, CA, May.
- Castro, R., Orozco, E., Eroza, E., Manca, M. C., Hernandez, J. J., & Aggiletto, P. (1998). AIDS-related illness trajectories in Mexico: Findings from a qualitative study in two marginalized communities. *AIDS Care, 10*, 583–598.
- Cioffi, D. (2000). The looking-glass self revisited: Behavior choice and self-perception in the social token. In T. F. Heatherton, R. E. Kleck, M. R. Hebl, & J. G. Hull (Eds.), *The social psychology of stigma* (pp. 184–219). New York: Guilford.
- Collins, R. L. (1998). Social identity and HIV infection: The experiences of gay men living with HIV. In V. J. Derlega & A. P. Barbee (Eds.), *HIV and social interaction* (pp. 30–55). Thousand Oaks, CA: Sage.
- Crandall, C. S., & Coleman, R. (1992). AIDS-related stigmatization and the disruption of social relationships. *Journal of Social and Personal Relationships, 9*, 163–177.
- Crawford, A. M. (1996). Stigma associated with AIDS: A meta-analysis. *Journal of Applied Social Psychology, 26*, 398–416.
- Derlega, V. J., Lovejoy, D., & Winstead, B. A. (1998). Personal accounts of disclosing and concealing HIV-positive test results: Weighing the benefits and risks. In V. J. Derlega & A. P. Barbee (Eds.), *HIV and social interaction* (pp. 147–164). Thousand Oaks, CA: Sage.
- Derlega, V. J., Sherburne, S., & Lewis, R. J. (1998). Reactions to an HIV-positive man: Impact of his sexual orientation, cause of infection, and research participants' gender. *AIDS and Behavior, 2*, 339–348.
- Derlega, V. J., Winstead, B. A., & Folk-Barron, L. (2000). Reasons for and against disclosing HIV-seropositive test results to an intimate partner: A functional perspective. In S. Petronio (Ed.), *Balancing the secrets of private disclosure* (pp. 53–69). Mahwah, NJ: Erlbaum.
- Diaz, R. M. (1998). *Latino gay men and HIV: Culture, sexuality, and risk behavior*. New York: Routledge.
- Fehr, B. (1996). *Friendship processes*. Thousand Oaks, CA: Sage.
- Fife, B. L., & Wright, E. R. (2000). The dimensionality of stigma: A comparison of its impact on the self of persons with HIV/AIDS and cancer. *Journal of Health and Social Behavior, 41*, 50–67.
- Gaines, S. O. (2001). Coping with prejudice: Personal relationship partners as sources of socioemotional

- support for stigmatized individuals. *Journal of Social Issues, 57*(1), 113–128.
- Greene, K., & Serovich, J. M. (1996). Appropriateness of disclosure of HIV testing information: The perspective of PLWAs. *Journal of Applied Communication Research, 24*, 1–16.
- Hays, R. B., McKusick, L., Pollack, L., Hilliard, R., Hoff, C., & Coates, T. J. (1993). Disclosing HIV seropositivity to significant others. *AIDS, 7*, 1–7.
- Herek, G. M. (1999a). AIDS and stigma. *American Behavioral Scientist, 42*, 1106–1116.
- Herek, G. M. (Ed.) (1999b). AIDS and stigma in the United States. *American Behavioral Scientist, 42*, 1101–1243.
- Herek, G. M., & Capitanio, J. P. (1999). AIDS stigma and sexual prejudice. *American Behavioral Scientist, 42*, 1130–1147.
- Kalichman, S. C. (2000). Couples with HIV/AIDS. In K. B. Schmaling & T. Goldman Sher (Eds.), *The psychology of couples and illness: Theory, research, and practice* (pp. 171–190). Washington, DC: American Psychological Association.
- Leary, M. R., & Schreindorfer, L. S. (1998). The stigmatization of HIV and AIDS: Rubbing salt in the wound. In V. J. Derlega & A. P. Barbee (Eds.), *HIV and social interaction* (pp. 12–29). Thousand Oaks, CA: Sage.
- Levinger, G. (1980). Toward the analysis of close relationships. *Journal of Experimental Social Psychology, 16*, 510–544.
- Levinger, G., & Snook, J. D. (1972). *Attraction in relationship: A new look at interpersonal attraction*. Morristown, NJ: General Learning Press.
- Lie, G. T., & Biswal, P. M. (1996). HIV-positive patient's choice of a significant other to be informed about the HIV-test result: Findings from an HIV/AIDS counseling programme in the regional hospitals of Arusha and Kilimanjaro, Tanzania. *AIDS Care, 8*, 285–296.
- Limandri, B. J. (1989). Disclosure of stigmatizing conditions: The discloser's perspective. *Archives of Psychiatric Nursing, 3*, 69–78.
- Markova, I., Wilkie, P. A., Naji, S. A., & Forbes, C. D. (1990). Self- and other-awareness of the risk of HIV/AIDS in people with haemophilia and implications for behavioural change. *Social Science and Medicine, 31*, 73–79.
- Marks, G., Bundek, N. I., Richardson, J. L., Ruiz, M. S., Maldonado, N., & Mason, R. C. (1992). Self-disclosure of HIV infection: Preliminary results from a sample of Hispanic men. *Health Psychology, 11*, 300–306.
- Mason, H. R. C., Marks, G., Simoni, J. M., Ruiz, M. S., & Richardson, J. L. (1995). Culturally sanctioned secrets? Latino men's nondisclosure of HIV infection to family, friends, and lovers. *Health Psychology, 14*, 6–12.

- Melchert, T. P., & Patterson, M. M. (1999). Duty to warn and interventions with HIV-positive clients. *Professional Psychology: Research and Practice, 30*, 180-186.
- Miles, M. S., Burchinal, P., Holditch-Davis, D., Wasilewski, Y., & Christian, B. (1997). Personal, family, and health-related correlates of depressive symptoms in mothers with HIV. *Journal of Family Psychology, 11*, 23-34.
- Montgomery, B. M., & Baxter, L. A. (Eds.) (1998). *Dialectical approaches to studying personal relationships*. Mahwah, NJ: Erlbaum.
- Norman, L. R., Kennedy, M., & Parish, D. (1998). Close relationships and safer sex among HIV-infected men with haemophilia. *AIDS Care, 10*, 339-354.
- Pennebaker, J. W. (Ed.) (1995). *Emotion, disclosure, and health*. Washington, DC: American Psychological Association.
- Pryor, J. B., & Reeder, G. D. (1993). Collective and individual representations of HIV/AIDS stigma. In J. B. Pryor & G. D. Reeder (Eds.), *The social psychology of HIV infection* (pp. 263-286). Hillsdale, NJ: Erlbaum.
- Rawlins, W. K. (1992). *Friendship matters: Communication, dialectics, and the life course*. New York: Aldine de Gruyter.
- Rozin, P. L., Markwith, M., & McCauley, C. (1994). Sensitivity to indirect contacts with other persons: AIDS aversion as a composite of aversion to strangers, infection, moral taint, and misfortune. *Journal of Abnormal Psychology, 103*, 495-504.
- Serovich, J. M., Brucker, P. S., & Kimberly, J. A. (2000). Barriers to social support for persons living with HIV/AIDS. *AIDS Care, 12*, 651-662.
- Serovich, J. M., Kimberly, J. A., & Greene, K. (1998). Perceived family member reaction to women's disclosure of HIV-positive information. *Family Relations, 47*, 15-22.
- Simoni, J. M., Mason, H. R. C., & Marks, G. (1997). Disclosing HIV status and sexual orientation to employers. *AIDS Care, 9*, 589-599.
- Sowell, R. L., Lowenstein, A., Moneyham, L., Demi, A., Mizuno, Y., & Seals, B. F. (1997). Resources, stigma, and patterns of disclosure in rural women with HIV infection. *Public Health Nursing, 14*, 302-312.
- Stein, M. D., Freedberg, K. A., Sullivan, L. M., Savetsky, J., Levenson, S. M., Hingson, R., Samet, J. H. (1998). Sexual ethics: Disclosure of HIV-positive status to partners. *Archives of Internal Medicine, 158*, 253-257.
- Stempel, R. R., Moulton, J. M., & Moss, A. R. (1995). Self-disclosure of HIV-1 antibody test results: The San Francisco General Hospital cohort. *AIDS Education and Prevention, 7*, 116-123.
- Van Der Straten, A., Vernon, K. A., Knight, K. R., Gomez, C. A., & Padian, N. S. (1998). Managing HIV among serodiscordant heterosexual couples: Serostatus, stigma and sex. *AIDS Care, 10*, 533-548.
- Winstead, B. A., Derlega, V. J., Barbee, A., Sachdev, M., Antle, B., & Greene, K. (2000). Impact of HIV on the close relationship of mothers living with HIV. Paper presented at the annual meeting of the American Psychological Association, Washington, DC, August.