The impact of HIV-related stigma on HIV Care and Prevention providers.

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Abstract:

Very little is known about the extent to which HIV care and prevention providers who work for U.S. community-based organizations are affected by the types of stigma that have been well documented as impacting those living with HIV and those who provide direct care to these individuals. To explore the existence and characteristics of this phenomenon, the HIV Provider Stigma Scale was developed and administered to 795 HIV service providers in 47 U.S. states. Stigma levels were higher among those whose sexual orientation was reported as heterosexual and those who had worked in the HIV field for less than 5 years. Those with the highest levels of stigma also reported decreased levels of social and occupational functioning. The extent to which the social stigmas of HIV and AIDS impact those who work professionally in the field could have important implications for the continued sustainability of the workforce, particularly in areas of the world with still developing HIV service infrastructures.

Article:

INTRODUCTION

As the pandemic of Human Immunodeficiency Virus (HIV) and Acquired Immune Deficiency Syndrome (AIDS) continues to impact communities throughout the world, much attention by both researchers and service providers has been focused on its stigmatizing nature and the impact that stigma has on those infected and affected. It has been well documented that stigma associated with HIV takes on a range of forms and targets, often dependent on epidemiological trends and cultural norms (Herek, 1999). To that end, researchers and those who provide HIV-related care and prevention services continue to work to understand the varying forms of stigma associated with HIV and the mechanisms that are effective for reducing their impact.

The earliest conceptualizations of stigma were offered by Goffman (1959, 1963) who described concepts such as "spoiled identities," and "undesired differentness" as being among those that negatively impact individuals and that create confusion between one's actual and perceived social identities. Since Goffman's early conceptualizations of stigma, researchers have articulated the foundations and manifestations of stigma across a wide range of social- and health-related issues; this has particularly been the case with HIV and AIDS.

In the earliest discussions of the notion of "AIDS-related stigma," some described it as being more intense than that experienced by other forms of illness given the pre-existing marginalized status of many of those being impacted, such as gay men, injection drug users, and others from oppressed communities (Herek & Glunt, 1988; Poindexter & Linsk, 1999). Additionally, others have offered unique characteristics of HIV and AIDS that further increase the extent to which levels of stigma associated with it have been considered more intense, including (1) that infection is perceived to be the responsibility of the individual living with the virus, (2) that infection is perceived as being permanent, (3) that infection is contagious, and (4) that results of infection are apparent to others (Emlet, 2005; Green & Platt, 1997; Herek, 1999). Following a 1996 meeting organized by the National Institute of Mental Health's Office on AIDS to establish a better understanding of stigma resulting from HIV and AIDS, a group of researchers (Herek et al., 1998) described it as the "prejudice, discounting, discrediting, and discrimination that are directed at people believed to have HIV or AIDS and the individuals, groups, and communities with which these individuals are associated."

Over the course of the pandemic, there has been general agreement that stigma presents, or is at least associated with, issues that challenge the global fight against HIV and AIDS. In an extensive review of the literature on HIV-related stigma, Parker and Aggleton (2003) conceptualized it as having been described as a phenomenon that generally takes on one of three forms: (1) As highly emotional in nature, often linked to harmful and unnecessary social policies (Herek, Capitanio&Widaman, 2003; Herek & Capitanio, 1998; Crawford, 1996), (2) as relating to attitudes that are associated with misunderstanding of different aspects of HIV (Herek & Capitanio, 1997; Herek & Glunt, 1991), and (3) as a result of negative attitudes directed at groups most commonly associated with the epidemic (Herek, Capitanio & Widaman, 2002; Pryor, Reeder, Vinacco, & Kott, 1989).

Much of the work on HIV-related stigma has focused on its impact on those living with the virus. Previous studies have found associations between stigma and the behaviors of individuals living with HIV, such as one's decision to seek testing or enter medical care following a diagnosis (Fortenberry et al., 2002; Chesney & Smith, 1999; Herek et al., 1998), one's likelihood of remaining in HIV-related care (Reece, 2003a), one's likelihood of suffering from emotional or psychological distress (Lewis, 1998; Novick, 1997), an increased likelihood that an individual will participate in behaviors likely to result inHIV transmission (Wenger, Kusseling, Beck&Shapiro, 1994) and avoid disclosure of their HIV infection or other co-morbid infections to sexual partners (Fortenberry, 2004).

In addition to work that has sought to understand the impact of stigma on those living with HIV, there has also been a considerable amount of effort to understand the forms of stigma that impact those individuals who are associated with those who are living with HIV, often referred to as "courtesy stigma." Goffman (1963) provided the earliest descriptions of those who, through some "special situation," are likely to share some form of that which is experienced by the stigmatized individual. He described two types of individuals that could be impacted in this manner, including: (1) those who share a special, often familial, relationship with the stigmatized person, such as husbands, wives, and children, and (2) those working in an environment that addresses the needs of the stigmatized individual or the actions of society that facilitate stigma.

Consistent with Goffman's conceptualizations, HIV-related courtesy stigma has been explored among those who constitute informal caregiving networks, such as family members, friends, and significant others who provide support and care to an individual living with HIV. This work has demonstrated that some caregivers, particularly those who are family members and significant others, may occasionally suffer from intense forms of stigma that impact their daily lives that often leads to complex social interactions with others in their lives and the resulting likelihood that they will subsequently withdraw socially and avoid discussions of HIV altogether (Poindexter & Linsk, 1999; Crawford, 1996; Lesar, Gerber, & Semmel, 1995; Mellins & Ehrhardt, 1994). These effects of stigma on caregivers can create a form of secondary illness among the caregivers, while they are committed to providing support for a loved one, they often find it difficult to seek support for themselves (Jankowski, Videka-Sherman, & Laquidara-Dickinson, 1996; Mellins & Ehrhardt, 1994).

In Goffman's early descriptions of courtesy stigma (1963), he also suggested that it could extend to those who work with stigmatized individuals or those who work to address the social structures from which stigma evolves. As described previously, this has been considered in the context of informal care providers. However, little attention has been paid to whether HIV-related stigma has had an impact on those who work professionally within the frontline community-based social service organizations, most often called AIDS service organizations (ASOs) that are dedicated to preventing HIV and responding to the needs of those affected by HIV. Typically these organizations exist to provide support services that complement more formal systems of medical care and that support the needs of other community-based and familial caregivers. Often, those who work in these organizations have training in such fields as social work, health education, and counseling. Consistent with Goffman's conceptualizations of courtesy stigma and given the manner in which the HIV-related prevention and care infrastructures in the United States have evolved, it is reasonable to consider whether HIV-related stigma has had an impact on these individuals.

Much of the response to the HIV/AIDS epidemic in the United States has been undertaken by these ASOs. They serve important functions in many communities throughout the country, providing services ranging from prevention activities such as education, condom distribution, and services related to HIV testing, to care activities such as treatment education, case management, and mental health care.

While much of the first decade of HIV saw the formation of organizations committed to responding to the epidemic among gay men and drug users, the trends in organizational responses to HIV in the United States have been consistent with its epidemiology. As shifts in the communities impacted by HIV changed, the infrastructure changed in response. For example, the decade of the 1990s saw a rapid increase in the number of organizations dedicated specifically to ethnic minority populations and increased funding opportunities for these organizations and their programs. Today, there exists a large number of organizations that offer a range of HIV-related prevention and care programs, many of which are focused on specific populations or segments of the community in which they are situated.

These trends in the organizational responses to HIV and AIDS have also been validated, and perhaps influenced by, the governmental entities that guide and fund the majority of HIV

prevention and care efforts (i.e., the U.S. Centers for Disease Control and Prevention and the U.S. Health Resources and Services Administration). Across multiple planning, policy development, and funding mechanisms associated with large federal funding initiatives, there are provisions to ensure that the individuals delivering services share some social, cultural, or ethnic similarity with those who will be the ultimate recipients of those services. Additionally, there exists empirical evidence that some of the more effective responses to the epidemic have been those where affected communities havemobilized themselves to fight stigma, discrimination, and oppression (Parker & Aggleton, 2003).

As a result, it is often the case that many of those who work in these organizations, although certainly not all, share some social and cultural characteristics with those for whom the organization's services are designed. Therefore, consistent with the concept of courtesy stigma, it may be that some of those who work in these organizations are faced with similar stigmas related to HIV as their clients.

HIV service providers and the organizations in which they work often have among their goals to confront the social stigmas associated with HIV and AIDS and to help individuals who turn to them for care and prevention services cope with the challenges of HIV. However, while this may be the case in terms of the roles of these unique professionals, relatively nothing is known about the extent to which they are individually faced with, and able to address, the impact of stigma on their professional and personal lives.

STUDY PURPOSE

The primary purpose of this study was to assess the extent to which HIV care and prevention providers at community-based social service agencies in the United States were impacted by the social stigmas associated with HIV. While stigma among informal caregivers has been explored, the concept of stigma among those who work in community based organizations and provide routine prevention and care programs has not been previously explored in the scientific literature. An understanding of this phenomenon may have important implications for the continued development and sustainability of the global workforce that is charged with developing and implementing effective responses to the epidemic.

METHODS

Participant Recruitment and Data Collection

This study sought to collect data from individuals who worked professionally in HIV-related community-based organizations in the United States. To access these individuals, a search of the U.S. Centers for Disease Control and Prevention's (CDC) National Prevention Information Network (NPIN) was conducted to identify HIV-related organizations in the United States that met three criteria: (1) services related to HIV defined the primary mission of the organization, (2) the organizations were nongovernmental community-based organizations, and (3) the agency published an e-mail address that could be used to contact at least one staff member.

An electronic message was sent to the published e-mail address for the primary contact at each of 742 HIV service organizations. At least one organization was sent this E-mail in each of 50 states. The e-mail included a description of the purpose of the study and invited the contact to forward information about the study to each of the agency's staff members. Each message also contained a link to the study Internet site and all data were subsequently collected using an Internet-based instrument. Protocols for this study were approved by the Institutional Review Board of Indiana University-Bloomington.

Measures

Participant Demographics and Work-Related Variables. Participants reported on routine demographic variables including age, gender, sexual orientation, ethnicity, and also were asked to provide information related to their personal HIV serostatus. Participants also provided details related to the nature of their HIV-related work, including the length of time that they had been working as an HIV professional, their position within their current organization, and the primary mission of their HIV organization (HIV prevention, HIV care, or both).

HIV Provider Stigma Scale. The existence of stigma among care and prevention providers was assessed using a scale developed for this study and based upon descriptions of stigma that evolved from discussions with providers in a previous study (Reece, 2003b). Prior to collecting data, the items on this scale were reviewed for their face validity by a group of 102 individuals who worked in community-based HIVrelated organizations from throughout the United States and who were attending a national HIV-related conference.

Prior to conducting analyses described later in the results section of this paper, factor analyses of the items on the HIV Provider Stigma Scale using oblimin rotation yielded three interpretable factors and a total of eight items with 69.2% of the total variance explained. Factor one, perceived assumptions of others, included two items to measure the extent to which providers perceived that others held beliefs about them as a nature of their work, (i.e., related to sexual orientation and HIV serostatus). In this sample, the item-factor correlations for this factor ranged from .82 to .90 and accounted for 42.61% of the variance. Factor two, perceived expectations of others, included two items to measure the extent to which providers had felt as though others held expectations of them to justify their commitment to the HIV epidemic and to individuals living with HIV. Item-factor correlations ranged from .83 to .85 and accounted for 17.72% of the variance. Factor three, personal embarrassment, included four items to measure the extent to which individuals had experienced feelings of embarrassment related to the HIV specific nature of their job and the characteristics of behavior that are associated with the epidemic by some in society (i.e., risky sexual behaviors, drug use). In this sample, item-factor correlations ranged from .82 to .88 and this factor accounted for 8.87% of the variance.

Confirmatory factor analyses were also conducted. The Root Mean Square Error of Approximation (RMSEA) and Tucker-Lewis Index (TLI) were calculated to assess the relative fit of the scale. The RMSEA for the model was 0.035 (upper bound: 0.017, lower bound: 0.052) and the TLI value was .998, indicating an acceptable fit for the model.

Internal consistency of the scale was high (= 0.91) and all item total correlations ranged from 0.64 to 0.83. Participants were asked to indicate the extent to which the scale items had applied to them within the past 30 days. Endorsement of the items was measured by a four response option Likert-type scale (i.e., 4 = Always applied tome, 1 = Never applied to me). Table 1 provides an overview of the HIV Provider Stigma Scale and its psychometric properties.

Social Function. Consistent with the concept of stigma management (Goffman, 1963) and based upon actions in response to stigma described by service providers in a previous study (Reece, 2003b) a measure of social function was also constructed and used for this study. In the preliminary work, participants described that one impact of the stigma that they faced was that it had become challenging to interact with others due to the extent to which it was perceived that the others held opinions about the nature of the participant's work. Participants in the earlier

study explained that they often were dishonest about the nature of their profession when the topic arose during routine conversation.

In this study, social function was measured to provide construct validity for the notion of courtesy stigma among service providers by assessing the extent to which a participant reported that he or she had been dishonest about the nature of their job when interacting with the following types of people: family members, friends, acquaintances, someone they had just met, someone they considered to hold potential as a future dating partner, and someone they considered to hold potential as a future sex partner. Participants were asked to report the frequency with which they had been dishonest about the nature of their job to each particular type of person within the past 30 days. This item was measured using a 5-point Likert-type scale (i.e., 5 = Always, 1= Never). Internal consistency of this scale was considered to be satisfactory (= .61).

Table 1 is omitted from this formatted document.

Occupational Function. As with social function, participants in a preliminary study reported that the social stigmas they faced were associated with a reduced feeling of accomplishment and satisfaction at work. Occupational function was measured by a 4-item scale assessing the participant's perceptions that their work was important, was making a difference, that the programs of their organization were effective and that their organization was respected in the community. This item was measured using a 5-point Likert-type scale (i.e., 5 = Strongly agree, 1 = Strongly disagree) that demonstrated a satisfactory level of internal consistency (= .75).

RESULTS

A total of 836 individuals responded to the e-mail and completed the majority of items on the study instrument. Analyses for this paper were limited to participants who completed each of the items on the HIV Provider Stigma Scale. These data included responses from 795 HIV service providers working in one of 47 U.S. states.

Participant Description

The majority of participants were women (60%, n = 477), described their ethnicity as Caucasian (67.6%, n = 535), identified as heterosexual (53.8%, n = 424), and reported that they were HIV

seronegative (75.2%, n = 590). With regard to the nature of their HIV-related work, 62% described the primary mission of their organization as being dedicated equally to both HIV prevention and HIV care (n = 493) and the largest proportion, 45.2%, identified their role in the workplace as program staff (n = 359). Slightly over one-fourth of participants had been working in the field for over 10 years (25.7%, n = 203). Table 2 provides an overview of the participant characteristics and the description of the HIV organizations with which they were affiliated.

Stigma Levels and Provider Characteristics

The scores on the HIV provider stigma scale ranged from 8 to 32, with a mean score of 13.51 (SD = 6.45). Analyses were conducted to assess the extent to which scores on the HIV provider stigma scale were associated with participant demographics and their work-related characteristics. To estimate the proportion of participants who would be classified as having lower versus higher levels of stigma, those with mean scores exceeding one standard deviation above the mean were classified into the higher stigma category. This resulted in 23.14% of the participants (n = 184) being classified as higher stigma and 76.9% (n = 611) being classified in the lower stigma category. On the measure of professional stigma, those in the higher stigma category had a mean score of 24.37 (SD = 3.36) and those in the lower stigma category had a mean score of 10.68 (SD = 3.28).

TABLE 2. Demographic, HIV and Work-Related Characteristics of Participants

HIV Provider Characteristics	N	%
Gender		
Female	477	60.00
Male	312	39.20
Transgender	6	0.80
Ethnicity (n = 792)		
Caucasian	535	67.60
African-American or Black	127	16.00

Hispanic or Latino	75	9.50
Other	30	3.80
Asian or Asian American	17	2.10
Native American or Pacific Islander	8	1.00
Sexual orientation (n = 786)		
Heterosexual	424	53.90
Gay or lesbian	299	38.00
Bisexual	50	6.40
Other	13	1.70
HIV serostatus (n = 785)		
HIV seronegative	590	75.20
HIV seropositive	111	14.10
Currently unsure	36	4.60
Never been tested	48	6.10
Primary mission of organization		
Both HIV prevention and care	493	62.00
HIV care	141	17.70
HIV prevention	108	13.60
Other	53	6.70
HIV agency role		
Program staff	359	45.20

Agency manager or director	184	23.20
Program manager or director	153	19.20
Administration	51	6.40
Volunteer	48	6.00
Years working in HIV field (n = 791)		
Less than 1 year	74	9.40
1-2 years	88	11.10
2-5 years	214	27.10
5-10 years	212	26.70
Over 10 years	108	13.70
Over 15 years	95	12.00

The only demographic characteristic associated with a higher score on the scale was related to sexual orientation. Those who reported their sexual orientation as heterosexual had a higher mean score on the scale (M = 14.6, SD = 6.8) than did those who identified as homosexual (M = 13.2, SD = 6.3), t(723) = 2.94, p = 0.003. There were no significant differences in the scale scores when assessed by ethnicity, gender, age, and reported HIV serostatus.

When scale scores were assessed for their associations with the work-related characteristics of participants, only one significant difference was detected. Those who had worked in the HIV field for less than 5 years had significantly higher scores on the stigma scale (M = 16.3, SD = 5.8) than did those who had worked for a longer period of time (M = 12.4, SD = 3.3), t(791) = 3.2, p = 0.002.

Social Function. Social function among participants was assessed by a measure of how frequently in the past 30 days they had been dishonest with someone about the nature of their job (i.e., they had lied about the nature of their work or used a descriptor to describe it that avoided characterizing it as HIV-related). On all six items of the scale, those in the highest stigma

category reported significantly higher frequencies of occasions that they had been dishonest with someone. Participants reported the highest frequencies of dishonesty when confronted with an individual that they perceived as a potential sex partner. For this item, 54.7% (n = 82) of those in the higher stigma category reported being dishonest in the past 30 days compared with only 14.7% (n = 73) of those in the lower stigma category [x^2(1, 645) = 98.3, p = 0.000]. Those in the higher stigma category were also more likely to report being dishonest with someone they just met than those in the lower stigma category [48.4% vs. 19.5%, respectively, x^2(1, 783) = 60.4, p = 0.000], and similar yet less distinct patterns existed for acquaintances [25.7% vs. 15.6%, respectively, x^2(1, 787) = 9.78, p = 0.002], potential dating partners [25.9% vs. 11.2%, respectively, x^2(1, 648) = 19.73, p = 0.000], friends [19.0% vs. 5.7% respectively, x^2(1, 795) = 31.1, p = 0.000], and family members [25.5% vs. 17.1%, respectively, X^2(1, 793) = 6.6, p = 0.01].

Occupational Function. Scores on the measure of occupational function indicated that those in the higher stigma category reported significantly more negative perceptions of their work and organizations (as indicated by lower scale scores) than did those in the lower stigma category. The mean score on the scale for those in the higher stigma category was 16.07 (SD = 3.89) and for those in the lower stigma category the mean score on this measure was 18.03 (SD = 1.93) (t = 6.56, p = 0.000). Overall, scores on the stigma scale were highly correlated with scores on the measure of occupational function (r = 0.82, p = 0.001), providing further support for the notion that negative perceptions of work and employer were associated with increased levels of stigma. Additionally, scores on the measures of occupational function and social function were highly correlated (r = 0.79, p = 0.004).

DISCUSSION

The primary purpose of this study was to assess the extent to which professionals who worked in community-based organizations that provided HIV-related care and prevention services in the United States were impacted by the social stigmas associated with HIV. There was strong psychometric support for the scale that was developed to measure this construct and the preliminary assessments of its construct validity demonstrated that it shared associations with reported levels of decreased social and occupational function as had been hypothesized.

Findings suggested that a fair proportion of HIV service providers in the United States are experiencing some level of stigma that they perceive to be associated with their chosen profession. Using a rather conservative method of estimating those in the sample who had higher levels of professional stigma resulted in just under one-fourth (23.14%) of participants being classified as such. This indicates that there is a sizable portion of the HIV-related care and prevention workforce who appear to be experiencing stigma that they perceive as associated directly with their profession and as a result, presents the potential for challenges to these workers and their organizations. This form of stigma is highly consistent with Goffman's early conceptualizations (1963) of courtesy stigma. This finding contributes to the literature in this area by extending our knowledge of the impact of stigma among those informal care providers (Crawford, 1996; Lesar et al., 1995; Mellins & Ehrhardt, 1994) to those who are working professionally in prevention and care organizations.

To provide support for the validity of the construct of stigma among these providers, and consistent with the concept of stigma management (Goffman, 1963), social function was assessed using a measure of the frequency with which the HIV service professionals found it necessary to be dishonest about the nature of their job when interacting with others. HIV service providers remain focused on the development of interventions designed to increase the extent to which individuals in society have open and honest conversations about HIV, particularly with those who may be sex partners. Therefore, it was surprising that some of these same professionals, specifically over half of those who were classified as having a higher level of professional stigma, reported that they had recently been dishonest with someone that they perceived to be a potential sex partner. It is unknown whether a lack of honesty about one's HIV-related profession also indicates a lack of willingness to have open conversations about HIV and prevention methods with one's potential or actual sexual partners. It is certainly possible that one could avoid the topic of his or her profession yet continue to take steps necessary to negotiate safer sexual behaviors to prevent HIV transmission. However, if professionals are struggling to discuss those issues with others then it should serve as a powerful reminder of just how much work remains to be done in order for societies around the world to deal with this pandemic effectively.

It may also be the case that stigma among professional care and prevention providers shares additional associations with reduced rates of employee recruitment and retention, as well as job burnout and stress. HIV service organizations may want to consider creating opportunities for their professional staff to have open and honest discussions about the extent to which their association with such a highly stigmatized topic creates complexities in their professional and personal lives. Scores on the stigma scale were higher among those who had worked professionally on HIV-related issues for less than 5 years, further highlighting the need to consider the potential for this to impact workforce development.

This study only considered the phenomenon of HIV-related professional stigma among those who work in the United States. It is clearly the case that HIV remains a highly stigmatized topic in many areas of the world. However, it may be that the nature of HIV-related stigma varies widely by county of the world. For example, the construct of this scale that explained the highest proportion of variance included an item related to sexual orientation. In other regions of the world, HIV and AIDS may not be socially constructed as being related to homosexuality to the extent that they are in the United States. To that end, this scale may not be appropriate for use in some countries. It may certainly be the case that similar forms of professional stigma exist, but it would be expected that they take on a similarity with the nature of the epidemic in a particular country or region. Future research should explore the existence of this phenomenon in other geographic areas. Particularly in countries with a still developing HIV services infrastructure, the existence of professional stigma may be particularly important to identify and respond to in order to decrease the potential for it to impact the continuing development of the workforce.

Recent work has indicated that there are multiple, or layered, issues related to HIV that compound the intensity of stigma among those who share other characteristics attributed to the epidemic such as a homosexual orientation or history of drug use (Reidpath & Chan, 2005; Herek, 1999; Grossman, 1991). Therefore, it was expected that individuals who identified their sexual orientation as gay or bisexual and those who indicated that they were living with HIV would have higher scores on the measure of HIV-related stigma. Given the proximity of these individuals to the core issues that are socially tied to the epidemic in the United States, the scale may not hold much discriminant validity with stigma that was directly a function of one's sexual orientation or HIV serostatus. However, those who were heterosexual reported higher levels of

stigma than did those who were gay, lesbian, or bisexual and endorsed highly the item that assessed their concerns over being perceived as being gay or lesbian as a result of their profession.

Instead, it could be that the scale lacks convergent validity with the construct of homophobia, which was not measured in this study. That heterosexual individuals scored higher on the scale than did others, and given the proportion of variance in the scale that was attributed to concerns over assumptions related to sexual orientation, it may be that some of these heterosexual individuals maintain some level of homophobic attitudes, or discomfort with personally being thought of as gay or lesbian, regardless of the extent to which they have made the decision to work professionally on a topic that has been associated with the gay community in the United States from the beginning.

Additionally, no significant differences in stigma level were detected between those who were HIV seropositive and those who were HIV seronegative. A limitation of this study is that, given that the proportion of the workforce that would report being gay or lesbian and those who would describe themselves as living with HIV was unknown, no measures were included in this study that made it possible to assess the discriminant validity of this scale with stigma measures specific to these other constructs. While those with nonheterosexual orientation did not report higher scores on the professional stigma measure, it may be important to include such measures of internalized homophobia or gay-related stigma in subsequent studies to assess the extent to which there may be some consistency between these measures and professional stigma among those in the workforce who identify as gay, lesbian, and bisexual.

Other limitations of this study also exist. While data were collected from HIV service providers in 47 of the 50 states in the United States, the Internet-based methodology obviously resulted in some providers being excluded from the opportunity to participate given that their agency may not have a published e-mail address that is listed with the U.S. Centers for Disease Control and Prevention. Additionally, we were dependent upon the willingness of the agency's contact to distribute information about the survey to others within the organization. It is highly likely that there are key and important differences between those who were willing to send information about the study to their co-workers and those who were not willing to do so. However, there currently exists no established methods for collecting data from the HIV workforce in the United

States, and more research is necessary to further delineate methods that result in a more representative sample. Also, to help maintain participant confidentiality, no data were collected from participants that made it possible to cluster participants by a particular HIV social service agency. To that end, it is impossible to conduct routine cluster analyses to explore differences in stigma that may be specific to a particular agency or cluster of agencies and it may be the case that the unique characteristics of some agencies (such as mission or philosophy) are a contributing factor in the extent to which an employee feels the impact of HIV-related stigma.

Additionally, this study focused on social service providers who work in HIV-focused community-based organizations and who provide prevention and care activities that are often complementary to the primary care system. Purposefully, individuals who provide direct medical care in hospitals and other clinics that often exist as an identified component of the HIV-related infrastructures in most cities were not recruited for this study. A great deal of literature has documented that stigma exists among medical care providers such as physicians and nurses, however much of the work in this area has described stigma among these individuals from a different perspective; often this work has examined the stigmatizing attitudes held by these providers and not the extent to which courtesy stigma may actually extend to them (Eliason, 1993; Marshall & O'Keefe, 1995). There is a need to consider the extent to which medical care providers who intentionally are placed within the HIV services infrastructure experience forms of courtesy stigma that are unique to their particular clinical interactions with individuals living with HIV.

This study indicates the need for HIV service providing organizations to consider the extent to which their workforces may be impacted by the social stigmas associated with HIV and AIDS. Particularly in countries where unique forms of stigma exist and which are continuing to develop their HIV-related infrastructure, an understanding of the likelihood for such stigmas to impact professionals may be important to effectively develop initiatives that support the recruitment and retention of a competent and dedicated workforce.

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