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Access to Services and Maintenance of Safer Sex Practices Among People Living with HIV/AIDS

Thom Reilly, DPA, MSW
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ABSTRACT. Access to services and their relationship to the maintenance of long-term safer sex practices are addressed in this study of 360 HIV+ adults recruited from outpatient medical facilities. Protease inhibitors, anti-viral therapies, and entitlements were reported as the most needed services, while entitlements and money to pay for housing were reported as the largest unmet needs. Differences across ethnic and gender groups were observed. One-third of all respondents reported at least one occasion of unprotected anal or vaginal intercourse in the previous six months. The practice of unsafe sex was found to be significantly related to both the number of needed services and the number of unmet needs, even after controlling for demographic variables. In addition, a higher proportion of those who engaged in unsafe sex reported a higher need for psychological coun-

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seling and social support. These findings underscore the important linkage between access to services with avoidance of high-risk sexual behavior in HIV+ persons. Implications for the delivery of culturally appropriate, gender-specific and community-based interventions are discussed. [Article copies available for a fee from The Haworth Document Delivery Service: 1-800-HAWORTH. E-mail address: <getinfo@haworthpressinc.com> Website: <<http://www.HaworthPress.com>> © 2003 by The Haworth Press, Inc. All rights reserved.]

KEYWORDS. HIV/AIDS, access to services, unmet needs, safer sex practices

INTRODUCTION

People with HIV/AIDS require a complex array of financial, medical, emotional, and social services, and it is critical for those responsible for planning and allocating resources appropriately to know what service needs are unmet. Studies of HIV-positive (HIV+) individuals have identified priority areas of unmet need to include financial assistance/entitlements, affordable housing, transportation, needed medicines, mental health services, substance abuse treatment, and home care (Bonuck et al., 1996; Crystal and Jackson, 1989; Heckman et al., 1998; Piette et al., 1993; Smith et al., 1990). Piette et al. (1993) found that more than 80% of HIV+ respondents had at least one unmet need and one-third reported a need in three or more services.

Gender and ethnic differences in unmet needs for HIV-related issues have been noted. In addition to being more likely to underestimate their personal risk for HIV infection/reinfection (Kalichman et al., 1992; Mendrano and Klopner, 1992), women, African-Americans and Latinos experience barriers to preventive medical care, anti-viral therapies and prophylactic treatments (Dennenberg, 1997; Cu-Uvin et al., 1996; Marcenko and Samost, 1999; Marquis, 1998; Moore et al., 1991; Piette et al., 1993; Sowell et al., 1997). They report facing greater institutional and structural barriers to being able to locate and get to appropriate services (Hackl et al., 1997; Ostrow et al., 1991), and cite more problems obtaining specific services such as mental health, transportation, housing, entitlements, and planning for the future of their children (Faithful, 1997; Gillman and Newman, 1996; Hackl et al., 1997; Marenko and Samost,

1999; Sarna et al., 1999) compared to their male and Caucasian counterparts.

Given that several recent studies have documented a significant number of HIV+ individuals are engaging in unsafe sexual practices (i.e., unprotected anal and vaginal intercourse) (Darrow et al., 1998; Heckman et al., 1998; Kalichman, 1999; Ostrow et al., 1999; Reilly and Woo, in press), it is imperative to better understand how lack of resources relate to unsafe sex.

The Vulnerable Populations Model proposes that resource availability, relative risk and health status are inter-related (Flaskerud and Winslow, 1998). Resource availability refers to the availability of various socioeconomic (i.e., income, jobs, education, housing) and environmental (access to health care and quality of care) resources. Those who have limited resources have a higher relative risk for poor health compared to those who have resources. Thus, these social groups with limited resources and consequent high level of risk for poor health outcomes are considered "vulnerable populations." The Vulnerable Populations Model has been applied to populations of high-risk mother and infants, the chronically ill, the mentally ill, substance abusers, abusing families, and the homeless (Aday, 1993, 1994). It has been suggested that vulnerable populations are at a higher risk because the lack of resources makes a disease progress faster and because the lack of resources makes them unable to maintain health behaviors that would prevent poor health outcomes (Aday, 1993; Flaskerud, 1998; Flaskerud & Winslow, 1998).

There is some support for the application of the Vulnerable Populations Model to HIV+ populations. Researchers have suggested that access to medical, mental health and positive social support networks may be related to successful avoidance of high risk sexual behavior among HIV+ persons (Kimberly and Serovich, 1999; Peterson et al., 1992; Turner et al., 1998). Heckman et al. (1998) found that problems in accessing health care, including having a poor relationship with one's doctor and encountering health care barriers, were associated with continued high-risk sexual behavior in a study of 277 persons with HIV/AIDS. Pandian et al. (1993) documented that couple counseling in combination with positive social support were correlated to safer sex practices in their study of 144 couples that were discordant for HIV serostatus.

As the incidence of HIV infection and AIDS continues to rise, it is imperative to monitor access to services, while better understanding how unmet needs relate to the maintenance of long-term safer sex practices of HIV+ persons. This study was conducted to: (1) examine access to services in a sample of HIV+ persons; (2) explore whether there are gender

and ethnic differences in unmet needs; and (3) determine whether there is a relationship between unmet needs and unsafe sexual practices.

METHODS

Participants and Procedures

Participants included 360 HIV+ adults (292 men and 68 women) receiving outpatient medical care for HIV/AIDS-related issues from a public agency (a public clinic run by the University Medical Center, $n = 197$) and a private agency (Lambda Health Care, $n = 163$). Close to 75% of all individuals receiving HIV medical care in the Las Vegas Valley access care from these two agencies (Clark County Health District, 1999). Patients entering these clinics between February and May 1999 were asked by the receptionist or medical personnel whether they were interested in participating in a voluntary and confidential study of persons with HIV/AIDS in Clark County, Nevada. Few individuals refused to participate ($n = 12$). Surveys were self-administered unless reading assistance was requested ($n = 4$), and participants were compensated \$10 for their time. Surveys were also available in Spanish, although few actually completed Spanish questionnaires ($n = 7$). Individuals were encouraged to complete the surveys on site while waiting for their medical appointment; however, they were allowed to take surveys home and return them ($n < 10$). No identifying information was collected, allowing for completely anonymous responses. The medical staff only tracked who completed the surveys to ensure that no individual was recruited more than once.

Measures

The survey instrument was pre-tested with prevention/intervention workers from a local community-based HIV/AIDS organization and clients receiving services from that agency.

Demographics Factors. Standard demographic information (age, race/ethnicity, gender, income, education, and employment status) was obtained, as well as information on sexual orientation.

Access to Services. Respondents were presented with a list of community services, as measured in Piette et al. (1993). The services included home care (home nursing, housekeeping, meal home delivery); housing (assistance locating housing, money to pay for housing); mental health (psychological counseling, support groups); medical services (preventive,

dental care, protease inhibitors, antiviral therapies); and other (child care, drug dependency, entitlements, transportation). For each service, the respondents indicated whether they needed the service in the previous six months. Those reporting a need were asked if they actually received the service and whether they were getting as much as they needed. An “unmet need” was defined as an instance where someone needed a service, but didn’t receive it, or someone received a service, but did not receive enough of that service.

Sexual Behavior. Respondents were asked to estimate the number of sexual contacts with men and women during the last six months. The six-month timeframe has been found to both be broad enough to sample behavior patterns and provide a reliable measure of sexual behavior (Bajos et al., 1989; Catania et al., 1992). Respondents were asked about behaviors with both regular partners (defined as someone with whom there had been a relationship for more than 3 months without excluding relationships with other partners at the same time) and casual partners (defined as any occasional sexual encounter within the last 6 months). The sexual behaviors of interest included insertive and receptive anal intercourse and vaginal sex; therefore, male respondents were asked about male and female partners, whereas female respondents were only asked about male partners.

RESULTS

Demographic Information

The recruitment sites yielded a sample that was diverse in both socio-economic status and ethnicity, as shown in Table 1. Compared to Clark County statistics of HIV+ individuals (Clark County Health District, 2000), this sample has a larger proportion of African-Americans and women. There is also a higher proportion of respondents in the 31-50 age range compared to those younger or older.

Access to Services

Almost all (96.1%) of the respondents reported a need in at least one service area. The number of needed services ranged from 0 to 12 with an average of 4.32 ($SD = 2.46$). The number of unmet needs ranged from 0 to 7 ($M = 1.22$, $SD = 1.52$). Table 2 shows a listing of needed services in descending order of necessity. Protease inhibitors, antiviral therapies, and entitlements were reported as the most needed services. Of the services re-

TABLE 1. Socio-Demographic Characteristics

	Sample		Clark County	
	n	%	n	%
Gender				
Male	292	81.1	2835	87.6
Female	68	18.9	403	12.4
Race/Ethnicity				
Caucasian	194	53.9	2051	63.3
African-American	115	31.9	718	22.2
Hispanic/Latino	35	9.7	413	12.8
Other	16	4.4	56	1.7
Education				
Graduated High School	193	53.8		
Income				
Under \$15,000	205	57.3		
Employed				
Full-time or Part-time	138	38.7		
Sexual Orientation				
Heterosexual	136	38.1		
Bisexual	61	16.9		
Homosexual	160	44.4		
Age				
30 years or less	31	8.6	84	25.9
31-40 years	165	45.6	919	28.4
41-50 years	125	34.7	1328	41.0
More than 50 years	39	10.8	907	28.0

portedly needed by at least 25 individuals, housekeeping, entitlements, and money to pay for housing were most frequently reported as an unmet need. Note that because this sample is derived from clinic populations, reported unmet need for medical treatments is low.

Gender and ethnic differences in individual services were tested using contingency table analyses. Because income is a vital factor related to access to services, these comparisons were limited to respondents reporting a household income of less than \$15,000. Although controlling for CD4 count in comparisons regarding antiviral therapies and pro-tease inhibitors would be meaningful, women and ethnic minorities were more likely to report not knowing what their last CD4 count was. Therefore, no such

TABLE 2. Access to Services

	Needed Services		Unmet Needs	
	%	Valid N	%	Valid N
1. Protease inhibitors	66.8	355	4.6	237
2. Antiviral therapies	64.5	355	5.7	229
3. Entitlements	56.9	357	57.6	203
4. Preventive medical services	43.9	358	8.3	157
5. Dental care	41.8	359	36.0	150
6. Money to pay for housing	32.8	354	56.0	116
7. Transportation	32.1	355	19.3	114
8. Support group(s)	23.1	360	45.8	83
9. Psych. Counseling	22.8	359	39.0	82
10. Assistance locating housing	18.4	359	47.0	66
11. Drug dependency tx	13.7	358	20.4	49
13. Housekeeping	7.3	357	61.5	26
12. Home nursing	7.2	359	30.8	26
14. Meal home delivery	3.6	359	46.2	13
15. Child care	1.4	355	80.0	5

adjustments were made. Furthermore, since this was a sample of people accessing outpatient medical care, it was assumed that they shared a certain level of medical necessity.

In terms of gender differences, women were less likely to report needing protease inhibitors (45.2%) compared to men (62.7%), $\chi^2(1) = 4.22, p < .05$. Among those who needed antiviral therapies, women were more likely to reported unmet needs (17.4%) compared to men (5.0%), $\chi^2(1) = 3.32, p < .05$. There were no other significant gender differences.

Ethnic differences are shown in Table 3. African-Americans indicated a lesser need for protease inhibitors and antiviral therapies compared to Caucasians and Latinos. Furthermore, among those who needed these medical services, African-Americans were somewhat more likely to report unmet needs for antiviral therapies compared to Caucasians and Latinos, while both African-Americans and Latinos were somewhat more likely to report unmet needs of protease inhibitors compared to Caucasians.

Ethnic differences were also observed in Mental Health Services. Fewer African-Americans reported needing psychological services and support groups compared to Caucasians and Latinos. An ethnic difference was also noted in dental care, with more Caucasians reporting a need compared to African Americans with Latinos falling in between. One last dif-

TABLE 3. Ethnic Differences in Needs and Unmet Needs

	Whites		Blacks		Hispanic	
	%	Valid N	%	Valid N	%	Valid N
Need support groups	22.7	88	19.1	90	40.0	19
Need psychological counseling	27.3	88	15.7	90	23.5	18
Need dental care	52.3	88	33.7	89	42.1	19
Need antiviral therapies	74.7	87	46.7	90	72.2	18
Need protease inhibitors	67.8	87	46.7	90	78.9	19
Unmet need in transportation	16.7	42	16.7	42	50.0	14
Unmet need in antiviral therapies	4.6	65	14.3	42	0.0	13
Unmet need in protease inhibitors	1.7	59	11.9	42	13.3	15

ference was noted in transportation, with more Latinos reporting an unmet need compared to Caucasians and African-Americans.

Sexual Behaviors

Half (55.3%) of the sample said they had a regular partner, and 37.8% reported living with a spouse (wife/husband, significant other, partner). On the other hand, 37.8% reported having had casual sexual encounters during the previous six months. One-third (34.2%) of all respondents reported at least one occasion of unprotected anal or vaginal intercourse in the previous six months. Another 34.7% reported always using a condom during sexual encounters, and 31.1% reported not engaging in any sexual encounters. For further detail on the relationship between sexual behavior and demographic variables, psychosocial factors, and emotional states, see Reilly and Woo, 2001.

Access to Services and Unsafe Sex

Contingency table analyses were used to compare whether there were differences between the "Unsafe Sex" and "Safer Sex" groups in terms of needing specific services and having unmet needs. Analyses were limited to those with household incomes less than \$15,000. No significant differences were found in reports of needing specific services. With respect to unmet needs, a greater proportion of the Unsafe Sex group reported more unmet needs in psychological counseling (65.0%) and support groups (50.0%) compared to the Safer Sex group (17.4%, 21.7%), $\chi^2(1) = 10.14$, $p < .001$, $\chi^2(1) = 3.76$, $p < .10$. The Unsafe Sex group also reported more

unmet needs in assistance to locate housing (50.0%) compared to the Safer Sex group (17.6%), $\chi^2(1) = 4.22, p < .05$.

Predictors of Need for Services and Unmet Needs

In order to test which factors were most strongly associated with need for services and unmet needs, multiple regression analyses were conducted. Having unsafe sex, being female, being an ethnic minority, having only a high school education, and having a household income of less than \$15,000 were coded as dummy variables and entered into equations to predict the total number of needed services and the total number of unmet needs. The five predictor variables, entered simultaneously, yielded a significant relationship with both dependent variables ($R = .38, R^2 = .14, F(5,354) = 11.90, p < .001$; $R = .36, R^2 = .13, F(5,354) = 10.32, p < .001$). As Table 4 shows, both having a household income of less than \$15,000 and engaging in unsafe sex were significant predictors of perceiving more needs. Similarly, having a household income of less than \$15,000, engaging in unsafe sex, and being an ethnic minority were significant predictors of having more unmet needs.

DISCUSSION

Over a third of all respondents indicated that they engaged in high-risk sexual practices (anal and vaginal intercourse) in the last six months. These findings seem to mirror other recent studies that have documented an alarming increase in transmission risk practices among HIV+ persons and other high-risk groups. Prevention experts have speculated that highly effective drug therapies and the failure of safe-sex messages are contributing to these findings (Lynch, 2000).

AIDS drugs (protease inhibitors and antiviral therapies) were reported by respondents as the most needed services, followed by entitlements. This is in contrast to other studies that report the need and reliance on various types of entitlements as the primary necessity of people with HIV, especially as the disease progresses (Piette et al., 1993). Our finding of a greater need of drug therapies could be attributed to the fact that this sample consists of people accessing medical care for their HIV disease. In any event, the simultaneous occurrence of high need for entitlements and money to pay for housing coupled with a large proportion reporting unmet needs underlies the importance of developing adequate services to allo-

TABLE 4. Predictors of Total Number of Needs and Unmet Needs

	Total Number of Needs		Total Number of Unmet Needs	
	β	t	β	t
Female	.03	.61	.06	1.20
Ethnic minority	-.06	-1.22	.12	2.20*
High school graduate or less	-.07	-1.29	-.07	-1.39
Household income < \$15,000	.38	7.29**	.30	5.67**
Unsafe sex	.11	2.28*	.11	2.18*

* $p < .05$ ** $p < .001$

cate funds to this population and assisting HIV+ persons in gaining access to these funds.

Gender and ethnic differences were found for medical services. Women and African-Americans indicated a lesser need for protease inhibitors, and African-Americans reported a lesser need for antiviral therapies. Furthermore, among those who needed these therapies, women and African-Americans reported more unmet needs for antiviral therapies, and African-Americans and Latinos reported more unmet needs for protease inhibitors. Other studies have found similar results that women and ethnic minorities perceive a lesser need for these drugs and have less access to them (Dennenberg, 1997; Hackl et al., 1997; Marquis, 1998).

It is important for those working with HIV+ people, especially women and people of color, to understand the context in which the person lives. Intervening with women often means intervening with the entire family because many women serve multiple roles as wives, mothers, heads of households, etc. (Marcenko, 1999; Sarna, 1999). It is also important that women be made aware of the important link between attending to their own health and their ability to care for those who depend on them (Broun, 1996). In the African-American community, there are unique cultural issues regarding disclosure of HIV status, sexuality and the stigma of HIV (IAPAC, 1997; Lynch, 2000). Providing important medical information will require reaching out to more non-traditional networks in the community. Additionally, education for the HIV+ persons needs to move beyond risk transmission knowledge and incorporate strategies to educate HIV+ persons about viral load (and its relationship to likelihood of transmission) and knowledge/concerns about when it is most appropriate to begin taking AIDS drugs (Kalichman and Ostrow, 1998).

African-Americans reported they needed psychological services and social support group services less than other ethnic groups. This could be a result of lack of (or a perceived lack of) culturally competent mental health providers and social support group services available in the community that are viewed as being able to meet the unique issues facing HIV+ persons in the African-American community. Real or perceived racism in traditional white gay organizations has resulted in many ethnic groups feeling isolated and relying on their services less frequently (Mays and Cochran, 1987). One of the most consistent findings in the research literature is that ethnic minorities groups underutilized or prematurely terminate mental health services (Isaacs and Benjamin, 1991; Neighbors et al., 1992). Developing outreach services to ethnic minorities requires a keen understanding of culturally appropriate and competent principles and services. The finding that Latinos reported a higher need for social support groups is not surprising given that there were no Spanish-speaking or Latino-specific support groups operating in the Las Vegas Valley at the time of this study (Clark County Health District, 1999). Developing a good support system can be critical for people who are HIV+, and for many women and ethnic groups, a necessary component of a good support system is the presence of other HIV+ women and people of color. In addition, in order for intervention and prevention efforts to be effective, non-English speaking populations need services available in their own language.

A household income less than \$15,000 was significantly related to total number of services needed, and income as well as ethnic minority status were related to total number of unmet needs. Even after controlling for these factors, the hypothesized relationship between unmet needs and unsafe sexual practices for HIV+ persons was confirmed: Individuals who engaged in more unsafe sexual practices reported more unmet needs. This finding is not surprising given that the relationship between resources and relative risk are apparent in many situations (i.e., poor nutrition, obesity, substance use) (Flaskerud and Winslow, 1998). While unsafe sexual practices are emerging among many populations, this research supports the notion outlined in the Vulnerable Populations Model that those with the least amount of resources are at greater risk. This finding has important implications for intervention specialists to consider. Rather than focus solely on individual responsibility, the responsibility of communities to provide the opportunities and allocate resources needed to achieve and maintain health and safer sex practices becomes paramount.

In terms of specific services, a greater proportion of those practicing unsafe sex reported unmet needs in psychological counseling and social support

groups compared to those practicing safer sex. Counseling may represent an effective way to promote and maintain safer sex practices with HIV+ persons. Kalichman (1999) and Kalichman et al. (1996; 1997) suggest that cognitive-behavioral skill training has not been as effective (compared to primary prevention in HIV- persons) when applied to HIV+ persons who experience difficulty protecting their partners. The authors posit that intensive integrative therapeutic interventions and support may be necessary for long-term maintenance of safe sex behaviors of HIV+ persons.

In light of this discussion, it is important to consider the limitations of this study. First, data collection methods in this study relied on self-reports of behavior, which are susceptible to response biases. Also, the sample was one of convenience recruited only from medical establishments; therefore, it is biased toward persons already enrolled in medical care and cannot be considered representative of all people living with HIV/AIDS. Additionally, the data do not capture the duration or severity of unmet needs. On the other hand, it is important to note that the nature of this topic necessitates relying on self-reports and convenience samples. Furthermore, this sample was taken from the two medical clinics where close to 75% of all HIV+ individuals in the Las Vegas valley access outpatient care. Our findings need replication with a larger sample population of women, and more exploration is needed into the various factors that underlie access to services and high-risk sexual behaviors. Despite its limitations, this research offers important insight for intervention efforts on behalf of HIV+ individuals.

SUMMARY/CONCLUSION

Unmet needs have been linked in this study and as well as others to long-term maintenance of safer sex practices for HIV+ persons. In addition, receiving psychological counseling has been found to be an important resource in assisting HIV+ individuals in avoiding unsafe sexual practices. Dramatic shifts in the demographics of those infected with HIV suggest that increased numbers of women and ethnic groups as well as people with fewer resources to cope with the disease will create new demands for expanded medical and social care. Significant differences were observed in this study in regards to gender and ethnicity and their access to care. Effective intervention strategies will require direct community participation and active involvement of HIV+ persons in the development and maintenance of health care and social services. In addition, cultural

and linguistic competence and a coordinated multi-agency response is essential. Finally, a deeper understanding of the institutional and structural barriers to care and how different groups cope and live with HIV will be required.

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