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Prior studies find that gay men and lesbians volunteer in HIV/AIDS service organizations at high rates. However, no population-based study has investigated the mechanisms involved. Using data from the General Social Survey, a nationally representative biennial survey that in 2002 and 2004 interviewed 2031 sexually experienced adults, the authors examine levels of empathic concern, altruistic values, and the past year occurrence of altruistic and reciprocal behaviors among homosexually and exclusively heterosexually experienced adults. Overall, women reported higher levels of empathic concern and stronger altruistic values relative to men while men reported engaging in a wider variety of altruistic behaviors than did women. In gender-specific comparisons, homosexually experienced men reported stronger altruistic values than did exclusively heterosexual men but levels of empathic concern and the range of altruistic and reciprocal behaviors engaged in did not vary appreciable. Among women, homosexually experienced women reported engaging in a wider range of altruistic behaviors than exclusively heterosexual women, but did not differ in their levels of empathic concern or strength of altruistic values. Findings support the existence of some small sexual orientation-related differences in altruistic values and altruistic and reciprocal behaviors. These have implications for HIV-related volunteerism. One surprising finding in this study was that approximately 17% of homosexually experienced men had donated blood in the year prior to interview despite the prohibition against doing so.

Keywords: blood supply; lesbian; AIDS Service Organizations; volunteering; gay

From the beginning of the HIV epidemic, both gay men and lesbians have responded with high levels of volunteerism (Kobasa, 1990). This might arise out of a sense of minority status affiliation where there is concern for community members who are in need. Indeed, volunteers who come from socially disadvantaged groups that have been especially affected by the HIV epidemic, such as sexual and racial/ethnic minorities, are more likely than people in general to report concerns for their community (e.g. the community of people with HIV or the gay community) as a major motivation for volunteering in HIV/AIDS services organizations (Omoto & Snyder, 2002; Reeder, Davison, Gipson, & Hesson-McInnis, 2001). Feelings of personal loss and experiences with oppression associated with having a stigmatized identity may also enhance these motivations to engage in altruistic and reciprocal behaviors (Staub, 2004). But whether sexual orientation is linked to an unusually high propensity for engaging in altruistic behaviors is unknown. In one of the rare studies to examine this possibility, Whitehead and Nokes (1990) surveyed 219 Big Brothers/Big Sisters volunteers finding no differences between heterosexuals and gay men and lesbians in levels of nurturance or empathy. However, this group was highly selective, restricting the chances of detecting sexual orientation-related differences.

We investigate levels of empathy, altruistic values, and altruistic and reciprocal behaviors among men and women in the USA who vary in their histories of same-sex sexual experiences. Our goal is to examine whether observed high rates of volunteerism among gay men and lesbians arise specifically in regards to the AIDS and HIV epidemic or reflect more general differences linked to sexual orientation in empathy, altruistic values and behaviors.

Method

Source of the data

The General Social Survey (GSS) is a biennial cross-sectional survey conducted by the National Opinion Research Center (Davis, Smith, & Marsden, 2002).

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Additional information about the GSS design, sample, data collection, and weights are available from the National Opinion Research Center web page (http://www.gss.norc.org) and from the GSS Data and Information Retrieval System web page (http://www.icpsr.umich.edu:8080/GSS/homepage.htm). In 2002 and 2004, 2712 GSS respondents were administered a topic module on empathy, altruistic values, and altruistic and reciprocal behaviors (Smith, 2003). Of these, 2031 individuals reported being sexually active since age 18 (988 men and 1043 women; all ns are unweighted) and comprise the sample of interest.

Measures

Sexual behavior history

Respondents reported on their sexual partners from the past year, past five years, and since age 18. We classified 123 individuals (6.0%) who indicated *any* same-gender partners since age 18 as "homosexually experienced." A total of 1908 persons (94.0%) who reported having *only* opposite-gender partners since age 18 were classified as "exclusively heterosexually experienced."

Empathy

The seven-item Empathic Concern subscale of the *Davis Empathy Scale* (Davis, 1983) assesses empathy. Davis envisioned a multidimensional measurement of empathy where Empathic Concern represents the emotional reactions to "unfortunate others" (Davis, 1983) including warmth, sympathy, and concern – generally, and other-oriented feelings. The scale shows reasonable test-retest correlations (ranging from 0.68 to 0.71), as well as convergent and discriminant validity (Davis, 1983). Responses to Empathic Concern items are made on a five-point Likert-type scale ranging from one ("does not describe you very well") to five ("describes you very well"). The items are then summed (with reverse coding for four items) to create a summary score with higher scores representing higher Empathic Concern. In the present study, the scale showed moderate reliability ($\alpha = 0.74$).

Altruistic values

Altruistic values were measured using a modified version of the *Attitudes Toward Helping Others Scale* (Webb, Green, & Brashear, 2000). This four-item scale uses five-point Likert-type questions to assess the degree to which individuals agree or disagree with the following statements: (1) people should be willing to help others who are less fortunate; (2) those in need have to learn to take care of themselves and not depend on others; (3) personally assisting people in trouble is very important to me; and (4) these days people need to look after themselves and not overly worry about others. The four items are summed (after two items were reverse coded) to create a summary score with higher scores representing a greater endorsement of Altruistic Values. The scale had modest reliability ($\alpha = 0.55$).

Altruistic and reciprocal behaviors

Altruistic helping behaviors are defined as behaviors where one provides assistance to others, receiving no material benefits, and even risking the possibility of some cost to him or herself (Howard & Piliavin, 2000). In contrast, reciprocal helping behaviors occur within existing social relationships (e.g. between friends and family) and typically do involve some benefit to the actor (Amato, 1990). Respondents reported if they had engaged in any of 11 altruistic behaviors in the past year. The target of these behaviors were strangers. These items were drawn from earlier studies of altruistic behavior (Smith, 2003). Examples include donating blood, volunteering for a charity, and giving directions to a stranger. We coded each behavior as having occurred or not. The respondents also reported if they had engaged in any of four reciprocal behaviors in the last year. The target of these behaviors was someone known personally (e.g. relatives, friends, etc.). These items were drawn from the International Social Survey Program module on social networks (Smith, 2003) and included helping with housework or shopping and helping someone to find a job. Again, we coded each behavior as having occurred or not.

Statistical analyses

Analyses were conducted using SUDAAN (Research Triangle Institute, 2003). To increase statistical power, we pooled, within gender, those reporting any same gender sexual partners since age 18 into a single group. All analyses were weighted and two types of analyses are reported. In the first, we compare men and women in their levels of empathic and altruistic values, as well as their reports of recent altruistic behaviors and reciprocal behaviors. Here, we adjust for potential confounding due to several demographic factors (age, race/ethnicity, education, marital status, family income, strength of religious beliefs, and frequency of church attendance) as well as year of survey. Next, to examine the possible effect of sexual orientation, we report outcomes of similar comparisons by sexual orientation, separately for

men and women due to known gender differences in empathy and altruistic values (Smith, 2003). Again we control for both the factors listed above. We report 95% confidence intervals (CI) to indicate sampling variance in analyses. All odds ratios (OR) and standardized betas (*b*) reported are adjusted (*adj.*) for potential demographic confounding.

Results

Characteristics of the sample

Approximately, 5.8% (Standard Error (SE) = 0.6%) of individuals reported any same-gender sexual partners since age 18. This varied little between men (6.6%, SE = 0.9%) and women (5.0%, SE = 0.7%; *adj.* OR = 1.17, 95% CI = 0.77–1.78). There were relatively few significant demographic differences associated with sexual orientation (see Table 1). Homosexually experienced men, as compared to exclusively heterosexually experienced men, were more likely to be never married as opposed to currently married (*adj.* OR = 6.99, 95% CI = 2.62–18.63). In addition, homosexually experienced women were significantly younger than exclusively heterosexually experienced women (*adj.* OR = 4.04, 95% CI = 2.02–8.05) and reported lower family incomes (*adj.* OR = 2.19, 95% CI = 1.01–4.75).

Empathic concern, altruistic values, and altruistic and reciprocal behaviors

Overall, women reported higher levels of empathic concern ($\bar{X} = 29.3$, SE = 0.2) and altruistic values ($\bar{X} = 14.7$, SE = 0.1) than did men ($\bar{X}$s = 26.8, 13.7; SEs = 0.2, 0.1, respectively). Both of these differences were statistically significant ($b_{empathy} = 2.36$, SE = .22; $b_{altruistic\ values} = 0.87$, SE = 0.11; ps < 0.0001). Among homosexually and exclusively heterosexually experienced men, no significant differences were found for levels of empathic concern ($b_{empathy} = 0.60$, SE = 0.81) but homosexually experienced men reported stronger altruistic values ($b_{altruistic\ values} = 0.67$, SE = 0.32) as compared to exclusively heterosexually experienced men. Similar comparisons of homosexually and exclusively heterosexually experienced women revealed no appreciable differences ($b_{empathy} = 0.03$, SE = 0.74; $b_{altruistic\ values} = 0.26$, SE = 0.34). Table 2 shows the mean scores for each group.

Nearly everyone reported engaging in at least one altruistic behavior in the past year (99.6%, SE = 0.2%). This did not vary between men (99.6%, SE = 0.2%) and women (99.6%, SE = 0.2%) although men ($\bar{X} = 6.6$, SE = 0.1) reported engaging in a greater number of types of behaviors than did women ($\bar{X} = 6.4$, SE = 0.1; $b_{altruistic\ behaviors} = -0.20$, SE = 0.10, $p = 0.05$). Within gender comparisons examining possible sexual orientation differences revealed few differences among men (see Table 2). Exclusively, heterosexually experienced men were more likely than homosexually experienced men to report that they had in the past year let a stranger cut ahead in line (*adj.* OR = 0.38, 95% CI = 0.17–0.81) and had given directions to a stranger (*adj.* OR = 0.27, 95% CI = 0.10–0.73). However, men of varying sexual orientation did not differ in the number of types of behaviors they reported engaging in the past year, after adjusting for confounding ($b_{altruistic\ behaviors} = -0.54$, SE = 0.35, $p = 0.12$). In contrast, homosexually experienced women reported engaging in a greater number of types of altruistic behaviors in the past year as compared to exclusively heterosexually experienced women to ($b_{altruistic\ behaviors} = 0.69$, SE = 0.31, $p < 0.05$). Differences were most pronounced in the frequency of reporting that they had offered one's seat to a stranger (*adj.* OR = 2.63, 95% CI = 1.34–5.16).

Although both men ($\bar{X} = 2.9$, SE = 0.04) and women ($\bar{X} = 2.9$, SE = 0.03) reported engaging in a similar number of different types of reciprocal behaviors in the past year, women (97.2%, SE = 0.5%) were more likely to report having spent time talking with someone who was depressed (*adj.* OR = 0.36, 95% CI = 0.22–0.57) as compared to men (92.2%, SE = 0.9%). Men (66.4%, SE = 1.6%), on the other hand, were more likely than women (59.8%, SE = 1.6%) to report having helped someone to find a job in the past year (*adj.* OR = 1.36, 95% CI = 1.10–1.69). Within gender comparisons of individuals varying in sexual histories revealed no appreciable differences in the numbers of types of reciprocal behaviors reported. However, exclusively heterosexually experienced men were more likely to report having helped someone find a job in the past year as compared to homosexually experienced men (*adj.* OR = 0.50, 95% CI = 0.29–0.97). In addition, exclusively heterosexual women were more likely than homosexually experienced women to report having talked with a depressed person (*adj.* OR = 0.25, 95% CI = 0.07–0.95).

Discussion

Summary of findings

Our comparisons of homosexually and exclusively heterosexually experienced individuals revealed few strong differences between the two groups in empathic concern, altruistic values, and altruistic and reciprocal behaviors. Average empathic concern scores of homosexually experienced individuals were almost identical to those of their respective

Table 1. Characteristics of sexually experienced individuals who completed the altruism module of the 2002–2004 General Social Survey by gender and genders of sexual partners since age 18 years.

	Men			Women		
Characteristic	Exclusively heterosexually experienced (weighted $n = 957$)	Homosexually experienced (weighted $n = 68$)	p	Exclusively heterosexually experienced (weighted $n = 955$)	Homosexually experienced (weighted $n = 51$)	p
Age, in years			0.11			0.0001
18–39	45.4	51.6		37.9	75.3	
40 and above	54.6	48.4		62.1	24.7	
Race			0.65			0.35
White	83.8	79.0		81.8	67.7	
Not White	16.2	21.0		18.2	32.3	
Educational attainment			0.15			0.48
High school or less	40.9	50.0		41.9	51.6	
More than high school	59.1	50.0		58.1	48.4	
Current marital status			0.0005			0.83
Married	60.2	29.8		57.1	36.6	
Never married	25.9	57.3		17.9	41.9	
Other	13.9	12.9		25.0	21.5	
Total family income			0.15			0.05
Less than $24,999	37.5	38.7		44.6	74.2	
$25,000 or more	62.5	61.3		55.4	25.8	
Strength of religious conviction			0.41			0.53
None or minimal	58.7	59.7		51.0	55.9	
Not very strong/very strong	41.3	40.3		49.0	44.1	
Church attendance past year			0.16			0.11
Less than once	27.4	37.1		20.8	34.4	
At least once	72.6	62.9		79.2	65.6	
Year of survey			0.83			0.07
2002	51.2	54.8		49.3	64.5	
2004	48.8	45.2		50.7	35.5	

Note: Weighted percentages shown. Percentages sum to 100% except for rounding error. Actual sample size is 919 men and 989 women who reported only opposite-sex partners and 69 men and 54 women who reported any same-sex partners since age 18. Probability values were estimated from logistic modeling evaluating the probability of homosexual versus exclusively heterosexual experience from all individual characteristics (age, ethnicity/race, education, marital status, income, strength of religious conviction, frequency of church attendance and year of survey) simultaneously.

Table 2. Comparisons of levels of empathic concern and altruistic values and past year occurrence of altruistic and reciprocal behaviors by gender and sexual orientation in the 2002–2004 General Social Survey.

	Men						Women					
	Exclusively heterosexually experienced			Homosexually experienced			Exclusively heterosexually experienced			Homosexually experienced		
	(weighted $n = 957$)			(weighted $n = 68$)			(weighted $n = 955$)			(weighted $n = 51$)		
Characteristic	$\bar{X}$	%	SE	$\bar{X}$	%	SE	$\bar{X}$	%	SE	$\bar{X}$	%	SE
Empathic Concern[a]	26.7		0.2	27.2		0.7	29.3		0.2	28.7		0.7
Altruistic Values[a]	13.7*		0.1	14.1		0.3	14.7		0.1	14.6		0.3
Altruistic Behaviors[b]												
Donated blood		21.8	1.5		16.9	5.8		14.4*	1.2		28.0	6.5
Gave food/money to homeless		63.2	1.7		63.7	6.7		67.3	1.6		69.9	6.6
Returned incorrect change		52.7	1.8		47.6	6.8		51.2.	1.7		54.8	7.2
Allowed stranger to cut in line		89.4*	1.1		76.6	6.0		92.3	0.9		90.3	4.2
Did volunteer work for charity		45.7	1.8		47.6	6.8		50.7	1.7		45.2	7.3
Gave money to charity		77.9	1.4		64.5	6.5		83.0	1.3		71.0	6.9
Offered seat to stranger		53.8	1.8		51.6	6.8		44.2**	1.7		67.7	6.8
Looked after another's plants, pets		61.2	1.7		54.8	6.8		63.9	1.7		61.3	7.2
Carried a stranger's belongings		54.2	1.8		49.2	6.8		45.2	1.7		54.8	7.3
Gave directions to stranger		96.1**	0.7		87.9	4.6		86.7	1.2		92.5	3.8
Loaned an item of value to someone not known well		49.8	1.8		49.2	6.8		38.7	1.7		51.6	7.4
Number of types of behaviors reported	6.7		0.1	6.1		0.4	6.4*		0.1	6.9		0.3
Reciprocal Behaviors[b]												
Helped someone with housework/shopping		79.9	1.4		78.2	5.8		81.4	1.3		86.0	5.5
Lent someone quite a bit of money		53.5	1.8		55.6	6.8		51.4	1.7		65.6	7.1
Talked with someone depressed		92.4	0.9		88.7	4.7		97.5*	0.5		92.5	4.2
Helped someone find a job		67.2*	1.6		55.6	6.8		58.9	1.7		76.3	6.2
Number of type of behaviors reported	2.9		0.1	2.8		0.2	2.9		0.1	3.2		0.2

Note: Actual sample size is 919 men and 989 women who reported only opposite-sex partners and 69 men and 54 women who reported any same-sex partners since age 18.

[a]Statistical significance evaluated by multivariate regression methods, conducted separately by gender, evaluating the independent effect of homosexual/heterosexual experience while controlling for other individual characteristics (year of survey, age, education race/ethnicity, family income, strength of religious beliefs, and frequency of church attendance) simultaneously.

[b]Statistical significance evaluated by either logistic or multivariate regression methods, conducted separately by gender, evaluating the independent effect of homosexual/heterosexual experience while controlling for levels of empathic concern, altruistic values, and other individual characteristics (year of survey, age, education race/ethnicity, family income, strength of religious beliefs, and frequency of church attendance) simultaneously.*$p < 0.05$; **$p < 0.01$.

heterosexual counterparts. Altruistic values did not differ between women who did or did not report any same gender sexual partners. But homosexually experienced men reported stronger altruistic values than did exclusively heterosexually experienced men. With these results in mind, it seems unlikely that gay and lesbian HIV/AIDS volunteer efforts could be explained predominantly by general differences related to empathy and altruism such as sensitivity to others in need and selfless giving behaviors.

We also observed occasional differences between homosexually and exclusively heterosexually active men and women in reports of having engaged in both altruistic and reciprocal behaviors. But the patterning of these differences are somewhat difficult to interpret. Exclusively heterosexual men, despite their somewhat lower valuing of altruistic principles, were more likely than homosexually experienced men to report having allowed a stranger to cut in line, having given directions to a stranger, and having helped someone to find a job. In contrast, exclusively heterosexual women, as compared to homosexually experienced women, were less likely to have offered their seat to a stranger but were more likely to have spoken with someone who was depressed. One interpretation of these findings may suggest that homosexually experienced women have more flexible gender roles and thus, feel more comfortable offering a seat to another person who is standing. In a review of the literature on attitudes toward homosexuality, Kite and Whitley (2003) report that men's violations of traditional male gender roles are viewed as more negative than women's violations of traditional female gender roles. An alternative interpretation of our findings could point to the pattern of lesbian women's employment. Because lesbians are typically employed at higher rates than heterosexual women (Ash & Badgett, 2006), lesbians may be presented with more opportunities to engage in the types of behaviors assessed here (e.g. ride public transportation and have opportunity to offer a seat). Indeed, situational factors such as opportunity, social, and time pressures have been shown to be important contributors to engaging in altruistic behaviors (Piliavin & Charng, 1990). Future research that considers the relationship between employment status and gender roles for lesbians and heterosexual women would help to clarify if the behaviors reported by homosexually experienced women reflect altruism, opportunity or flexibility in gender roles.

These findings also have policy implications. Rates of giving and volunteerism are of special interest to charities and some community service organizations that rely on donor support to help fund, support, and staff programs. This is particularly true of HIV/AIDS community service organizations. In recent years, these organizations have experienced a drop in both charitable contributions and volunteers (Ross, Greenfield, & Bennett, 1999). Our findings suggest that homosexually active men and women show similar levels of empathy, altruism and other civic engagement behaviors as others do. Hence, AIDS/HIV service organizations probably face similar difficulties as other community organizations in fostering and retaining volunteers.

A related question for HIV/AIDS services organizations is what strategies can be employed by these agencies to successfully recruit and retain volunteers. One approach may be to emphasize the possible benefits of volunteering to the community, the volunteers (Omoto & Snyder, 2002), and as well as the beneficiaries. These studies indicate that psychological and physical health benefits are associated with volunteering (Wilson, 2000). With respects to gay and bisexual men, in particular, volunteering for HIV/AIDS services organizations, studies suggest that it may reduce high-risk sexual activity, increase self-efficacy of condom use, enhance positive self-identity, and decrease social alienation, (for discussion see Ramirez-Valles, 2003), all of which are components of HIV risk reduction. Other benefits to volunteering may include contributions to community empowerment (Kayal, 1994) as well as spin offs of employment possibilities (Wilson, 2000).

One additional issue raised in our study was the finding that about 17% of the homosexually experienced males in this study donated blood within the past year. Men who have had sex with another man are currently ineligible to donate blood due to concerns about HIV transmission (Garmaise, 2006). New HIV reporting and partner notification laws have been established in the USA despite the fact that passage of some of these laws has been quite contentious. Blood donation by homosexually active men may represent one path to anonymous HIV testing that helps to overcome concerns about confidential and/or names reporting testing.

Limitations

Although the current study improves on past research that relies on convenience samples of volunteers, there are some limitations in our study that should be taken into account in interpreting the findings. The overall low rate of respondents who reported same-sex behavior could limit the ability to detect true effects, particularly because we combined homosexually and bisexually active individuals together to

enhance statistical precision. We also know that sexual behavior is only one component of sexual orientation that does not correlate perfectly with sexual orientation identity (Anderson & Stall, 2002; Butler, 2000; Cochran, 2001). In addition, the reasons why individuals have volunteered in such high numbers for AID/HIV-related efforts are complex. In the current study, we examined only one possible underlying component: differences in attitudes, values, and behaviors that might make one group more or less likely to engage in volunteer work. Other factors such as demographic differences that facilitate or encourage volunteer activities, community norms, and community identification, all important in their own right, were not investigated.

Despite these limitations, the current study gives the first population-based estimates of empathy, altruistic values, and altruistic and reciprocal behaviors for homosexually experienced men and women in the USA. On the one hand, these findings contradict the notion that gay men and lesbians differ from heterosexual men and women in some way that is related to differences prosocial values and behaviors. At the same time, we did find a few instances where homosexually and heterosexually experienced adults do differ in their self-reported behaviors. The USA has a long tradition of helping those less fortunate through volunteer efforts. Volunteerism also plays a critical role in building and sustaining efforts that support the development of communities and groups. As the HIV/AIDS epidemic continues to plague the USA during this time of shrinking governmental resources, research that can help to sustain or bolster volunteer efforts in the fight to prevent and cope with this disease are greatly needed.

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