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Knowledge, Attitudes and Motivations Among Blood Donors in São Paulo, Brazil

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Abstract

Recruiting safe, volunteer blood donors requires understanding motivations for donating and knowledge and attitudes about HIV. We surveyed 1,600 persons presenting for blood donation at a large blood bank in São Paulo, Brazil using a self-administered, structured questionnaire, and classified motivations into three domains as well as categorizing persons by HIV test-seeking behavior. Motivations, in descending order, and their significant associations were: “altruism”: female gender, volunteer donor and repeat donor status; “direct appeal”: female gender, repeat donor status and age 21–50 years; “self-interest”: male gender, age under 20 years, first-time donor status and lower education. HIV test-seekers were more likely to give incorrect answers regarding HIV risk behavior and blood donation and the ability of antibody testing to detect recent HIV infections. Altruism is the main motivator for blood donation in Brazil; other motivators were associated with specific demographic subgroups. HIV test-seeking might be reduced by educational interventions.

Keywords

Blood donors; Motivation; Altruism; HIV infections; Health knowledge; Attitudes and practices

Introduction

A major challenge for blood banks is to provide a safe and regular supply of blood to meet patient needs through voluntary donation. Motivation for blood donation has therefore been investigated in many countries (Allam and Masalmeh Bel 2004; Buciuniene et al. 2006; Godin et al. 2005; Sampath et al. 2007). Blood banks in São Paulo, Brazil, have introduced donation policies and marketing campaigns to improve the quantity and safety of the blood supply. One part of these policies is aimed at establishing a large pool of regular, repeat blood donors at low risk for HIV and other transfusion-transmissible infections. In many settings around the world, regular repeat donors are found to have lower prevalence of

infectious agents compared to first-time or once-only donors (Glynn et al. 2000; LikataVICIUS et al. 2007; Niederhauser et al. 2005; Soldan et al. 2003; Soldan et al. 2005).

Brazilian policies have also shifted blood donation from remunerated to non-remunerated blood donors as well from replacements to volunteers (Brasil 1980). Despite substantial changes in the blood donor base that may considerably affect donor motivation, only a few unpublished studies have examined Brazilian blood donor motivations (ANVISA 2005; Chen 2001; Ludwig 2001). Data collected by the Fundação Pró-Sangue/Hemocentro de São Paulo (FPS/HSP) show trends in blood donor profiles and the impact of these changes on transfusion safety (Barreto et al. 2005; Gonzalez et al. 2003). Since 1998, there has been an increase in the absolute number and proportion of donations originating from persons recruited directly from the community at large (volunteer donors) as compared to those recruited among the family and friends of patients in need of blood (replacement donors). In the past 3 years the proportion of donations from volunteer donors has stabilized at approximately 60% and the proportion of donations by repeat donors has increased from 22 to 48% (Gonzalez et al. 2003). Contrary to expectation, first-time donor HIV prevalence has been consistently higher among volunteer than among replacement donors (Barreto et al. 2005). The finding raises the question of why volunteer donors at risk for HIV choose to donate blood.

A previous study in Brazil tested whether higher HIV prevalence among volunteers was due to a higher frequency of test-seekers in this group; that is, persons who expressed a high desire for knowing their HIV test results and/or a motivation to donate in order to get test results. The authors found 8.8% of the donor population could be classified as test-seekers. Although the frequency of admitted test-seekers was the same between volunteer and replacement donors, test-seekers were more likely to be exposed to a sexually transmitted disease as indicated by higher HSV-2 seropositivity (Gonzalez et al. 2006). Motivations to donate blood may therefore be linked to the risk of transfusiontransmissible infections and efforts to achieve a blood supply based on regular, repeat donors require information on the motivations related to blood donation (Belda Suárez et al 2004; Glynn et al 2002; Glynn et al. 2006; Hollingsworth and Wildmant 2004; Hupfer et al. 2005; Osborne et al. 1978; Rapport and Maggs 2002).

The present study examines such motivations at a large transfusion service in São Paulo, Brazil, with the long-term aim of improving recruitment strategies and increasing our capacity to recruit safer donors. We also assess donor knowledge about HIV risk factors and transmission by blood transfusion. A few unpublished studies have examined donor motivation in Brazil, yet none have assessed the specific knowledge, attitudes and motivations related to blood donation (ANVISA 2005; Chen 2001; Ludwig 2001).

Methods

Setting

São Paulo city, the largest city in South America, has a population of 11 million (Brazilian Institute of National Statistics and Geography, IBGE 2005). Our blood bank is situated at a major public hospital which also serves as a state university teaching hospital. The blood bank is one of the largest in Latin America, collecting, testing and processing approximately 180,000 units of blood annually, or 50% of the blood collected in the city of São Paulo. For accepted donors, in addition to other tests, Brazilian regulations require HIV antibody ELISA testing by two separate kits on each donated unit. Confirmatory western blot testing is only performed for those blood donors who return for counseling and provide an additional sample. Nucleic acid testing for HIV is not routinely performed. Although recommended by the Brazilian Government, limited funds and the high cost of HIV nucleic

acid testing have delayed its implementation in the country. Nucleic acid testing is routinely performed in a few private blood centers but not in public blood centers in Brazil. Therefore, unlike the US, there remains a risk of blood donations made in the window period of HIV antibody testing that might be detected by nucleic acid testing.

Participants, Study Design, and Sampling Methods

This was a cross-sectional survey of persons presenting for blood donation carried out from April to September of 2004 at our central collection site. We constructed a representative sample of all potential blood donors using a random, time-location sampling design (Muhib et al. 2001). The sampling frame comprised a roster of morning and evening blood collection shifts on all days of the week for 6 months. We randomly selected donors and invited them to participate in the study. In keeping with blood bank policy, no monetary incentive was given to subjects. The study questionnaire was given after the routine pre-donation screening interview. Candidates were asked to participate in the study before they were accepted or rejected for donation and data from all persons presenting for donation, regardless of their ultimate acceptance or rejection, are presented here. There are posters providing information on HIV and other STDs on the walls of the waiting area of the blood collection center that include where persons can get voluntary HIV testing. However, no specific materials are given at the time of completing the questionnaires.

Measures

After providing written informed consent, donors completed the self-administered, structured Portuguese questionnaire including approximately 30 items adapted from a previous survey of blood donors (Glynn et al. 2002; Sharma et al. 2001). The instrument included demographic characteristics, reasons for blood donation, HIV/AIDS knowledge, and behavioral risk factors for HIV. Reasons for donation were classified using a four-point Likert scale (e.g., totally disagree, somewhat disagree, somewhat agree, and totally agree). We defined a repeat blood donor as someone who had donated more than once within the last 12 months at our blood bank. According to Brazilian blood banks practice, a lapsed blood donor was defined as donor who had donated more than once ever but not in the past 12 months. A first-time donor was defined as donor who had never donated at our center. Test-seekers were defined as those who answered “strongly agree” to two questions: “I believe that blood donation is a good, fast and anonymous way to get my test results” and “I donate blood to get test results”.

Four questions were included to assess knowledge and attitude about HIV infection as pertaining to the risk of transfusion-transmissible infections: (1) whether it is OK to donate blood even if one is at risk for HIV/AIDS because the blood will be tested and discarded if positive; (2) whether the blood test for HIV is 100% accurate; (3) whether the donor knew where to get a free HIV test other than through blood donation; and (4) whether it is possible that a person infected with HIV in the past 2 weeks will be detected by routine blood testing done by the blood bank.

Data Analysis

We developed donor motivation scales based on *a priori* hypotheses guided by previously tested questions among blood donors (Glynn et al. 2002; Sharma et al. 2001) and corroborated by factor analysis. Three scales for donor motivation were identified: altruism, self-interest, and direct appeal. We assessed the internal consistency with Cronbach's alpha and calculated mean scores by averaging the four-point Likert scores on the several individual questions comprising each scale. Scores were also calculated for subsets of donors according to gender, age, education, marital status, type of donation, type of donor, donation status, and test-seeking status and linear regression analysis was used to identify

variables significantly associated with each scale. We then conducted separate multivariate linear regression models for each scale by including significant bivariate predictors and retaining only those independently associated with the motivation scales after a stepwise elimination.

Results

Among 1,720 potential blood donors initially approached, 1,600 (93%) agreed to participate in the survey, and of these, 85% were accepted as blood donors (Table 1). The mean age was 30 years (range: 18–62) and the mean age at first donation was 25 (range: 18–60). The majority was male, single, and had at least a high school level education. More than two-thirds were volunteer donors, with the remainder being replacement donors. Forty-three percent were first-time donors, one-quarter were regular repeat donors, and one-third were lapsed donors (i.e., had donated previously but not within the last 12 months).

Motivations for blood donation were classified into three scales: altruism (Cronbach's alpha 0.60), self-interest (Cronbach's alpha 0.71), and direct appeal (Cronbach's alpha 0.81). Table 2 lists motivation questions included for each scale, the percentage of people who “strongly agreed” with each statement (i.e., indicated 4 on a scale of 1–4), the mean score for each scale item individually and the overall scale score. Wanting to help someone in need of blood had the highest motivation score, while getting the day off was ranked lowest.

The mean scores obtained for each of the three scales were compared by blood donor characteristics (Table 3). Mean scores for altruism were higher for female donors (versus male), volunteer donors (versus replacement), and repeat donors (versus first-time and lapsed). Mean scores for self-interest were higher among males, donors under 20 years old (versus older), donors with less education (versus above high school), single donors (versus married, divorced, and others), replacement donors, first-time donors, and test-seeking donors (versus not test-seeking). Mean scores for the direct appeal scale were higher among female donors, donor's age 20–40 years and repeat donors.

In multivariate analysis (Table 4), altruism was independently associated with female gender, repeat and lapsed donors status, and test-seeking. Self-interest was associated with male gender, first-time donor status, test-seeking, age less than 21 years and less than high school education. Direct appeal was associated with female gender, repeat and lapsed donor status and age 21–40 years.

Results for the questions on HIV knowledge relating to blood donation are given in Table 5. Donors classified as HIV test-seekers were significantly more likely to give incorrect responses to all four questions. First-time donors were more likely to think it was OK to donate blood even with HIV risk factors. Deferred donors, replacement donors, and first-time donors were all less likely to know about alternative HIV testing sites. Finally, replacement donors were more likely to give an incorrect response on the question about HIV test performance during the 2-week “window period”.

Discussion

We found that in Brazil, as elsewhere, altruism was the main motivator toward blood donation. However, other motivators, including response to a direct appeal and self-interest, played greater or lesser roles in various demographic and donor status subgroups. Knowledge about HIV pertaining to blood safety was lower among Brazilian blood donors when compared to other populations (Sharma et al. 2001), and lower degrees of HIV knowledge were associated with HIV test-seeking.

The goal of every blood bank is to provide a safe and adequate blood supply. To achieve this goal is necessary to recruit low risk and frequent blood donors. Despite overall reductions in transmissible disease risk in Brazil due to laboratory testing (Barreto et al. 2005; Gonzalez et al. 2003), safe blood donor recruitment remains complex and challenging. Research to understand motivations for blood donation has the potential to yield better qualified blood donors, increasing the blood supply and reducing the risk of transfusion-transmitted disease (Glynn et al. 2000; Likatavicius et al. 2007; Niederhauser et al. 2005; Soldan et al. 2003; Soldan et al. 2005). Based on the above premises, we examined a variety of factors related to knowledge, attitudes, and motivations that may contribute to better understand the major reasons that lead risky and less risky persons to donate blood.

Among all donors, the most important motivation factor found in our study was altruism, agreeing with results from studies conducted in other countries that most donors have the desire to help someone and to do something important for society (Glynn et al. 2002; Glynn et al. 2006; Osborne et al. 1978). As concluded by other authors most blood donors appear to have high levels of primary social responsibility, commonly thought to be a strong motivator for donation, although it may not be related to donation frequency (Steele et al. 2007). We found that altruistic motivation could be reported in combination with other motivations, including self-interest (Misje et al. 2005). Thus, our data support the suggestion that altruism may be a rationalization rather than a motivation for certain groups of donors (Belda Suárez et al. 2004; Misje et al. 2005; Rapport and Maggs 2002). Altruism was also strongly associated with female gender and repeat and volunteer donor status, suggesting that the strength of this primary motivator may differ by subgroup of donors (Hollingsworth and Wildmant 2004; Hupfer et al. 2005). It is interesting to note that altruism scored just as high among test-seekers as non-test-seekers, another indication that multiple motivations may coexist (Lefrere et al. 1996; Misje et al. 2005; Rapport and Maggs 2002).

Response to a direct appeal also had an important role in motivating donors. When there was a demand for blood for a friend or relative, the score for this question was as high as altruism. Replacement donation is culturally accepted in Brazil and an effective method to encourage blood donors to donate for the first time. Among first-time donors 48% were replacement donors. Women and repeat donors were also strongly motivated by direct appeal.

We found that self-interest as a motivator for blood donation in Brazil was the weakest of the three scales, but nonetheless correlated significantly with male gender, young age, and first-time donor status. Some of the questions comprising this scale, such as “I may need blood myself someday” and “I like to know about my health and giving blood is one way to find out” may indicate curiosity about their own physical condition or a need for control that may resonate with younger males. These could provide themes for donor recruitment in this important group of potential donors. On the other hand, caution is indicated because of the weakness with which these motivators were rated, indicating that they might have been incidental rather than primary motivators.

Motivations differed in strength according to the gender, age and past donation status. Female donors, donors age 20–40 years and repeat donors had higher scores on direct appeal than did male, older and first-time donors. Male donors, those less educated, younger donors, first-time and test-seeking donors were more motivated by self-interest. While altruism may be a core motivator, self-interest motives may act as a catalyst to blood donation. These subtle differences may allow blood banks to target their recruitment messages according to the subgroup of donors they are trying to recruit.

Levels of knowledge about HIV and blood safety were disappointingly low, with only about half or fewer donors giving the correct responses for most of the questions. It appears that donors are particularly ill-informed about the performance and capability of HIV antibody testing. It may be too much to expect a lay population to comprehend the concepts of a “window period” during which the HIV test is inaccurate. Alternatively, the phrasing of the questions used in our questionnaire may have played a role. The present study shows test-seekers to be more poorly informed about HIV antibody test performance than other groups of donors, particularly regarding the concepts of “window period” and test accuracy. Together with their lack of knowledge about alternative HIV testing sites, this suggests that many test-seekers were using the blood bank for HIV testing out of ignorance. Half of them do not understand that they may place someone at risk if they do not answer the screening questions truthfully (Lau et al. 2002; Lefrere et al. 1996). In a previous study in Brazil, prevalence of HSV-2 was higher among test-seekers than non-test-seekers, suggesting that test-seekers also engaged more frequently in risk behaviors (Gonzalez et al. 2006). In settings where nucleic acid testing is not routinely performed, there remains a small, but real residual risk for HIV infection due to persons donating during the window period of detection of HIV antibodies. This risk may be increased by the HIV test-seeking behavior of persons with recent exposure to infection if symptoms of acute infection are not pronounced, recognized, detected, or acknowledged.

Our findings suggest that several potential avenues need to be pursued to the safety of blood donors. On the one hand, if a prospective donor truly believes that HIV testing is highly accurate and would not miss a case, then he or she should not be likely to conceal risk behavior. On the other hand, sexual and drug use behavior does carry a stigma. Better education about the relationship between risk behavior and the window period may help donors to answer more honestly and accurately. One possible avenue is the direct provision of more information as educational material regarding transmissible diseases before blood donation, by means of pamphlets, letters and web sites. Efforts to educate donors about such difficult concepts as the HIV “window period” may require further research to understand the best way of presenting this information (Rugege-Hakiza et al. 2003). Qualitative research is needed to gauge the true understanding of the “window period” concept and level of test accuracy by donors. Quantitative research is needed to evaluate the impact of donor education approaches, including controlled studies where donors are randomly assigned to different messages or avenues of information. Our research also has implications improving pre-donation clinical screening and deferral. Many donor deferral policies have been implemented in the past 25 years to prevent those at high-risk from donating blood, but the efficacy of this selection is limited by the accuracy of responses of donors about their behavior (Stigum et al. 2001; Van der Bij et al. 2006). The selection and deferral criteria need to be evaluated against serological outcomes; including other sexually transmitted diseases (e.g., HSV-2) in addition to the current markers for transfusion-transmissible infections (Gonzalez et al. 2006). Additionally it has been demonstrated that a substantial number of donors confirmed positive for the presence of a viral marker did have a risk factor that should have deferred them from donating (Lefrere et al. 1996; Van der Bij et al. 2006). On-going, systematic interviews of donors found to have markers of infection are needed to continually assess the utility of the donor risk deferral questions. Findings in the present study may help guide future observational or interventional studies to determine whether educating potential blood donors about the relationship between HIV risk behavior and “window period” donation and improving the questions might enhance the performance of deferral interviews.

Our study was subject to limitations. First, we ascertained motivating factors through a self-administered questionnaire in persons that presented to donate blood. Therefore we did not measure the motivational factors for others in the general population who might be eligible

to donate blood, and our results may have been influenced by response bias. Donors may be inclined to give a socially acceptable response rather than the real reason for their donation (Lefrere et al. 1996; Van der Bij et al. 2006). This may explain why test-seekers had the same altruistic score when compared to others subgroups. As reported by Germain and associates, there is a major difference between asking a donor whether altruism is a motivation factor and measuring the degree to which donors engage in other altruistic behaviors (Germain et al. 2007). Second, we did not investigate negative motivation aspects of blood donation, such as fear, anxiety, and inconvenience (e.g., time, location, and transportation), as reasons for refraining from blood donation. Further research investigating the negative and positive aspects of blood donation in the general population may elucidate stronger motivations for blood donation. Finally, our findings may only be generalizable to certain populations of blood donors in São Paulo.

In conclusion, in countries like Brazil where donation has recently shifted from replacement to community donation, we show that altruism is the main reason to donate as it is in developed countries. However, our donors were less knowledgeable about the HIV window phase than donors in the US (Sharma et al. 2001). The findings in this study may help Brazilian blood bank regulators to develop guidelines for blood donor deferral, or public health officials to develop educational program to enhance blood donor's knowledge about sexual and blood-borne disease. It may also suggest future observational or interventional studies on educating donors about the potential for HIV transmission during the “window period” to reduce the high frequency of test-seeking donors.

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Table 1Demographics characteristics and donation history by type of blood donation, São Paulo, Brazil ($n = 1,600$)

Variables	First-time ($n = 694$) n (%)	Repeat ($n = 527$) n (%)	Lapsed ($n = 379$) n (%)	Total ($n = 1,600$) n (%)
Sex**				
Male	337 (49)	280 (53)	220 (58)	837 (52)
Female	357 (51)	247 (47)	159 (42)	763 (48)
Age in years***				
<20	153 (22)	63 (12)	12 (3)	228 (14)
21–30	329 (48)	237 (45)	192 (51)	758 (47)
31–40	106 (15)	130 (25)	112 (30)	348 (22)
41–50	84 (12)	69 (13)	48 (13)	201 (13)
>50	22 (3)	28 (5)	15 (4)	65 (4)
Education				
<High school	181 (26)	164 (31)	116 (31)	461 (29)
High school	513 (74)	363 (69)	263 (69)	1,139 (71)
Marital status***				
Single	446 (64)	318 (60)	195 (52)	959 (60)
Married	193 (28)	147 (28)	133 (35)	473 (30)
Divorced	42 (6)	54 (10)	49 (13)	145 (9)
Others	13 (2)	8 (2)	2 (2)	23 (1)
Religion				
Catholic	441 (60)	312 (60)	211 (56)	934 (59)
Spiritual	78 (11)	58 (11)	54 (14)	190 (12)
Evangelic	136 (20)	94 (18)	78 (21)	308 (19)
Others	33 (5)	28 (5)	13 (3)	74 (5)
Type of donation***				
Altruistic	360 (52)	475 (90)	282 (74)	1,117 (70)
Replacement	333 (48)	52 (10)	97 (26)	482 (30)
Donation***				
Accepted	561 (81)	493 (94)	308 (81)	1,362 (85)
Refused	133 (19)	34 (6)	71 (19)	238 (15)
Test-seeking				
No	629 (91)	483 (92)	347 (92)	1,459 (91)
Yes	65 (9)	44 (8)	32 (8)	141 (9)

Note: Totals do not always add up to 1,600 due to missing observations

* $P < 0.05$,

** $P < 0.01$,

*** $P < 0.001$

Table 2Motivational scales, blood donors, São Paulo, Brazil, 2004 ($n = 1,600$)

Motivations	Strongly agree n (%)	Mean score
Altruism (Cronbach's alpha = 0.60)		
To help someone in need of blood	1,411 (88)	3.85
I think it is good to give blood to help someone	1,365 (86)	3.8
I believe I am doing something important	1,314 (84)	3.74
I think blood donation is important for society	1,266 (80)	3.7
Total	–	3.78
Self-interest (Cronbach's alpha = 0.71)		
I may need blood myself someday	866 (55)	3.07
I want to get tested ^a	720 (45)	2.9
I like to know about my health and giving blood is one way to find out	365 (23)	2.15
I was curious	178 (11)	1.61
I like the snacks	140 (9)	1.51
Giving blood thins out the blood	121 (8)	1.48
I want to get the day off	130 (8)	1.43
Total	–	1.88
Direct appeal (Cronbach's alpha = 0.81)		
To help a friend or relative undergoing treatment at the hospital	1,287 (81)	3.60
I received a letter from the blood bank	715 (45)	2.92
I received a phone call from the blood bank	719 (45)	2.91
In response to a TV announcement	392 (25)	2.74
My friend came and I decided to come too	506 (32)	2.67
My blood type is in high demand	552 (36)	2.61
In response to a radio announcement	336 (21)	2.6
I was passing by and decided to come in	381 (24)	2.34
Total	–	2.8

^aUsed to identify test-seekers

Table 3

Mean scores for altruism, self-interest, and direct appeal by blood donor characteristics, São Paulo, Brazil ($n = 1,600$)

Variables	Altruism	Self-interest	Direct appeal
Sex			
Male	3.74 **	1.96 ***	2.75 **
Female	3.81	1.8	2.85
Age in years			
<20	3.77	2.07 ***	2.73 *
21–30	3.78	1.89	2.84
31–40	3.8	1.87	2.84
41–50	3.74	1.7	2.75
>50	3.72	1.78	2.58
Education			
<High school	3.77	2.03 ***	2.77
High school	3.78	1.82	2.81
Marital status			
Single	3.78	1.92 *	2.8
Married	3.78	1.84	2.81
Divorced	3.72	1.79	2.83
Others	3.81	1.79	2.68
Type of donation			
Community recruited	3.80 **	1.85 **	2.82
Replacement	3.72	1.95	2.75
Type of donor			
First-time	3.73 **	2.00 ***	2.70 **
Repeat	3.83	1.79	2.88
Lapsed	3.78	1.8	2.86
Donation			
Accepted	3.78	1.88	2.8
Refused	3.76	1.92	2.8
Test-seeking			
No	3.77	1.82 ***	2.8
Yes	3.82	2.51	2.78

* $P < 0.05$,

** $P < 0.01$,

*** $P < 0.001$

Table 4

Multivariate linear regression models for altruism, self-interest, and direct appeal, blood donors in São Paulo, Brazil, 2004 ($n = 1,600$)

	Adjusted β coefficient	95% CI
<i>Model I: altruism</i>		
Intercept	3.72	3.68–3.76
Sex (versus male)		
Female	0.07	0.03–0.11
Type of donor (versus first-time)		
Repeat	0.11	0.06–0.16
Lapsed	0.07	0.02–0.12
Test-seeking (versus no)		
Yes	0.08	0.01–0.15
<i>Model II: self-interest</i>		
Intercept	2.30	2.18–2.41
Sex (versus male)		
Female	−0.14	−0.21 to −0.08
Type of donor (versus first-time)		
Repeat	−0.17	−0.24 to −0.09
Lapsed	−0.17	−0.26 to −0.09
Test-seeking (versus no)		
Yes	0.70	0.58–0.82
Age in years (versus 18–20)		
21–30	−0.18	−0.28 to −0.08
31–40	−0.19	−0.31 to −0.07
41–50	−0.36	−0.48 to −0.23
>50	−0.27	−0.46 to −0.09
Education (versus <high school)		
High school	−0.20	−0.28 to −0.13
<i>Model III: direct appeal</i>		
Intercept	2.55	2.42–2.67
Sex (versus male)		
Female	0.10	0.01–0.18
Type of donor (versus first-time)		
Repeat	0.19	0.10–0.29
Lapsed	0.16	0.06–0.27
Age in years (versus 18–20)		
21–30	0.16	0.03–0.28
31–40	0.15	0.01–0.30
41–50	0.06	−0.10–0.22
>50	−0.14	−0.37–0.09

Table 5

Knowledge and attitudes concerning HIV infection among blood donors, São Paulo, Brazil

Variables	It is OK to donate blood even if you are at risk for HIV/AIDS because the blood will be tested and thrown away if positive (% answering "yes" or "don't know")	The blood test for HIV is 100% accurate (% answering "true")	Other than blood donation, do you know where you can get a free HIV test? (% answering "no")	Do you believe that a person who was infected in the past 2 weeks will be detected by the tests used in the blood banks? (% answering "yes" or "don't know")
Test-seeking				
Yes	69 **	62	48 **	51 **
No	52	48	66	65
Donation type				
Voluntary	32	49	48 *	50 **
Replacement	35	52	54	58
Donor type				
First-time	38 **	51	54 **	55
Lapsed	33	52	45	53
Repeat	26	47	48	48
Donor status				
Accepted	32	50	50 **	52
Deferred	37	45	47	51

* $P < 0.05$,** $P < 0.01$