Blood donors' attitudes towards incentives: influence on motivation to donate

Leila Kasraian¹, Mahtab Maghsudlu²

¹Education and Research Department; ²Blood Donor Recruitment Department, Community Medicine Specialist, Blood Transfusion Research Centre, Higher Institute for Research and Education in Transfusion Medicine, Shiraz, Iran

Background. Understanding the factors that motivate donors to donate will facilitate improvements in recruitment programmes. Donation incentives are often used to improve the effect of recruitment programmes. This cross-sectional study was designed to understand donors' attitudes toward incentives.

Material and methods. Participants (n=421) were recruited among volunteer donors at the Shiraz Blood Transfusion Centre when they registered for blood donation. They completed a questionnaire with items regarding demographic characteristics, donation status (first-time donor or regular donor), and their motivation for donating, their attitude towards incentives, and the best type of incentives. Multiple logistic regression and chi-squared tests were used to analyse the data with Statistical Package for the Social Sciences (SPSS) software.

Results. The majority of donors (85.6%) donated blood for altruistic reasons. One quarter of the donors (25.3%) believed that incentives should be offered to encourage them to donate. Most donors (84.5%) believed that the most effective incentive was offering specific blood tests. Donors who had donated for non-altruistic reasons were more interested in receiving incentives. The desire to receive incentives was more widespread among younger, married, first-time donors, donors with a lower educational level and donors with a history of more than five donations. The desire to receive incentives decreased as age increased.

Discussion. Most of the donors (74.7%) had no desire to receive incentives, and this was even more apparent among donors who donated for altruistic reasons. Non-monetary incentives may be effective in attracting younger, married, first-time donors, donors with a lower educational level and donors with a history of more than five donations.

Keywords: motivation, blood donors, recruitment activity, blood disease, blood safety, attitude.

Introduction

Although blood banks are charged with preparing adequate and safe blood supplies¹, they have to contend with a permanent shortage of blood². Despite the increasing demands for blood due to advanced surgery, cancer treatment, seasonal shortages and ageing of the donor population, the number of blood donors is declining³-⁴. This decline is due to strictly enforced screening guidelines and improved screening for transfusion-transmitted diseases. The number of eligible donors is restricted to make sure that donated blood will not harm the donors or recipients⁵-⁶. Blood collection should, therefore, be prioritised for blood banks⁷. Understanding the factors that motivate donors to give blood would facilitate improvements in recruitment programmes³.

Many studies have examined the various motivations of donors⁷-¹¹ and have found that altruism is the most important factor¹²-¹⁴. Donation incentives are often used to improve the effectiveness of recruitment programmes¹⁵-¹⁹. However, the results of these incentive-based efforts have not been clarified⁶. Incentives may dramatically affect blood safety by attracting high-risk donors who may intentionally
fail to identify risk behaviours during the donation interview in order to obtain the incentives. On the other hand, certain incentives could also deter donors whose prime motivation is for altruistic reasons. Some studies showed a higher prevalence rate of transfusion-transmitted diseases among paid donors. According to these findings, cash incentives or incentives that can be easily converted to cash should not be used.

Donors' attitudes towards incentives should be surveyed at our sites where all donations are based on voluntary non-remunerated donation. Attitudes towards incentives may differ according to donors' characteristics. In this study we aimed to assess donors' attitudes towards incentives and determine their potential value for enhancing donation rates in our community. We hope that this research will aid the planning of future donor recruitment programmes and thus benefit the medical services supported by blood banks.

Materials and methods

This cross-sectional study was conducted at Shiraz Blood Transfusion Centre, one of the main blood transfusion services in southern Iran. The centre prepares most of the blood supply for the south of the country. Shiraz Blood Transfusion Centre operates a blood donation service based on voluntary non-remunerated donation. The participants who enrolled in this survey between 1 March and 1 December 2009 were all volunteers whose ages ranged from 17 to 65 years.

This analysis was restricted to blood donors who responded to the questionnaire survey. We used a sample size of 385 based on an estimated 50% of donors who would wish to receive incentives, with 5% precision and 95% confidence intervals. To increase the power of the study 421 donors was selected. The questionnaires were given to volunteer donors when they were referred to blood centres at the time of their registration for blood donation.

An anonymous questionnaire was generated from two previous studies and modified for the Iranian setting. The questionnaire solicited information on demographic characteristics, donation status (first-time or regular donor) and motivation for blood donation. It also contained items regarding whether participants would be encouraged to donate again in the future if offered a variety of incentives, and which type of incentives they found most attractive. Responses to the possibility of receiving incentives were categorised as encouraged or discouraged.

Incentives were classified into four groups: (i) screening tests for fasting blood sugar, cholesterol or haemoglobin; (ii) compensation-payment incentives such as cinema, park or concert tickets; (iii) tokens of appreciation in the form of a plaque, pin or certificate for different donation rates; (iv) gifts such as a mug, T-shirt or other small item bearing the blood donation emblem. Then we compared their motivation towards different incentives according to demographic characteristics. We used multiple logistic regression and chi-squared tests to analyse the data with Statistical Package for the Social Sciences (SPSS v.16) software.

Results

Of the 500 questionnaires distributed, 421 were completed and returned (84.4% response rate). The donors ranged in age from 18 to 63 years (mean 37.76±9.72). Based on the data, 94.5% of the participants were men, 79.5% were married, 14.3% were first-time donors and 58.3% had donated regularly. The mean number of lifetime blood donations was 8.7±1.14, and the mean number of blood donations per year was 2.33±1.21. Mean age at first blood donation was 23.8±7.92 years. One third of the participants (33.7%) had a high level of education (higher than high-school diploma). Most donors (85.6%) donated blood for altruistic reasons.

The motivations for blood donation are summarised in Table I. One quarter (25.3%) of the donors believed that incentives should be offered to donors to encourage them to donate blood and 84.9% of donors reported that specific laboratory tests (such as cholesterol, fasting blood sugar and haemoglobin) were the most attractive incentives. Donors' opinions towards the type of incentives are summarised in Table II. The desire for incentives was lower among blood donors who donated for altruistic reasons. The desire for incentives decreased as age increased (odds ratio, OR=0.971; confidence interval, CI=0.957-0.984). The desire for incentives was greater among married donors (OR=2.47 CI=1.720-3.565), donors with a low educational level (OR=1.264 CI=1.006-1.586), first-time donors (OR=3.531 CI=2.258-5.521).
Table I - Blood donors' motivation for giving blood.

<table>
<thead>
<tr>
<th>Motivations for giving blood</th>
<th>All donors</th>
<th>Donors who donated regularly</th>
<th>Donors who did not donate regularly</th>
<th>Low level of education</th>
<th>Higher level of education</th>
<th>Age ≤25 years</th>
<th>Age &gt;25 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Altruistic reason</td>
<td>360 (85.6%)</td>
<td>217 (88.2%)</td>
<td>143 (81.3%)</td>
<td>97 (82.8%)</td>
<td>235 (86.6%)</td>
<td>16 (88.8%)</td>
<td>174 (84.4%)</td>
</tr>
<tr>
<td>Positive effect of donation on their health</td>
<td>48 (11.3%)</td>
<td>24 (10.1%)</td>
<td>24 (13.6%)</td>
<td>15 (12.8%)</td>
<td>32 (11%)</td>
<td>1 (5.6%)</td>
<td>26 (12.6%)</td>
</tr>
<tr>
<td>Free laboratory tests</td>
<td>5 (1.2%)</td>
<td>0</td>
<td>5 (2.8%)</td>
<td>1 (0.9%)</td>
<td>4 (1.4%)</td>
<td>1 (5.6%)</td>
<td>3 (1.5%)</td>
</tr>
<tr>
<td>Curiosity about blood donation</td>
<td>4 (1%)</td>
<td>2 (0.4%)</td>
<td>2 (1.1%)</td>
<td>2 (1.7%)</td>
<td>1 (0.3%)</td>
<td>0</td>
<td>1 (0.5%)</td>
</tr>
<tr>
<td>Religious reason</td>
<td>3 (0.7%)</td>
<td>2 (1.3%)</td>
<td>1 (0.6%)</td>
<td>1 (0.9%)</td>
<td>2 (0.7%)</td>
<td>0</td>
<td>2 (1%)</td>
</tr>
<tr>
<td>Peer pressure</td>
<td>1 (0.2%)</td>
<td>0</td>
<td>1 (0.6%)</td>
<td>1 (0.9%)</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>421 (100%)</td>
<td>245 (100%)</td>
<td>176 (100%)</td>
<td>117 (100%)</td>
<td>274 (100%)</td>
<td>18 (100%)</td>
<td>206 (100%)</td>
</tr>
</tbody>
</table>

Table II - Preferences for different types of incentives according to donation history and the donors' motivation for giving blood.

<table>
<thead>
<tr>
<th>Incentives for blood donation</th>
<th>Tests for fasting blood sugar, cholesterol, haemoglobin</th>
<th>Payment or compensation (cinema, park or concert tickets)</th>
<th>Token of appreciation (plaques, pins, or certificates)</th>
<th>Gifts (mug, T-shirt or other small item bearing the blood donation emblem)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>All donors</td>
<td>322 (85.2%)</td>
<td>22 (5.8%)</td>
<td>17 (4.5%)</td>
<td>17 (4.5%)</td>
<td>378 (100%)</td>
</tr>
<tr>
<td>Donors who donated regularly</td>
<td>151 (83.4%)</td>
<td>8 (4.4%)</td>
<td>11 (6.1%)</td>
<td>11 (6.1%)</td>
<td>181 (100%)</td>
</tr>
<tr>
<td>Donors who did not donate regularly</td>
<td>123 (89.1%)</td>
<td>8 (5.8%)</td>
<td>3 (2.2%)</td>
<td>4 (2.9%)</td>
<td>138 (100%)</td>
</tr>
<tr>
<td>Donation for altruistic reason</td>
<td>244 (87.8%)</td>
<td>11 (4%)</td>
<td>13 (4.7%)</td>
<td>10 (3.5%)</td>
<td>278 (100%)</td>
</tr>
<tr>
<td>Donation for non-altruistic reason</td>
<td>40 (75.5%)</td>
<td>6 (11.3%)</td>
<td>3 (5.7%)</td>
<td>4 (7.5%)</td>
<td>53 (100%)</td>
</tr>
</tbody>
</table>

and donors with a history of more than five donations (OR=1.815 CI=1.299-2.322). Those who donated blood for non-altruistic reasons were more interested in receiving incentives (OR=1.568 CI=1.199-2.052).

Discussion

In order to ensure a sufficient blood supply and overcome blood shortages, some blood transfusion services offers donation incentives to enhance the effectiveness of donor recruitment. Knowledge of factors that can encourage blood donors and potential blood donors who have never donated blood is essential for donor recruitment. In this study, 74.7% of donors indicated that they had no desire to receive any incentives for blood donation. The low desire for incentives among our donors was a positive point. The RetroEpidemiology Donor Study (REDS) showed that donors who reported being encouraged to donate due to incentives were 1.6 times more likely to be at risk of infectious diseases (OR=11.56 CI=1.05-2). Another study showed that there was a significant difference in the relative risk between paid and unpaid donors. The low desire to obtain incentives may be due to the fact that most of our donors (85.6%) donated primarily for altruistic reasons. Other studies have shown that offering permanent incentives to donors may distract them from the main purpose of donating blood. Some donors may not consider the social benefits and, therefore, donate less frequently.
Among the incentives most valued by our donors were screening tests for haemoglobin (as an indicator of possible anaemia), cholesterol and fasting blood sugar. This finding was similar to that of a study in the USA. In contrast, another study showed free cholesterol testing did not increase donation rate in donors and non-donors.

Screening tests have proven to be an effective recruitment instrument that has beneficial effects for the donor because some donors may assume that blood banks are a place where they can obtain a human immunodeficiency virus (HIV) test. This idea is not, however, well supported, as previous studies showed that the offer of non-monetary incentives such as screening tests had no effect on blood safety.

The desire to receive incentives was lower among donors who donated for altruistic reasons. This finding is in agreement with another study in the USA. Donors who donate for the sole purpose of benefit to the society are not persuaded by incentives.

Donors with a low level of education were more interested in receiving incentives. This illustrates the need to educate donors regarding the importance of donating for altruistic reasons.

The desire to receive incentives was greater among donors with a history of more than five donations, which suggests that regular donors deserve special consideration. Perhaps their selfless action and its benefits for society should be highlighted and they should be shown greater appreciation.

In spite of the importance of the voluntary nature of blood donation for blood safety, some donors still believed that incentives were potentially beneficial. It seems that offering incentives to encourage donors should be handled with caution because offering incentives may attract high-risk donors and subsequently endanger blood safety.

Previous studies showed that the impact of incentives on recruiting blood donors was unclear, that the effect of incentives on blood donation and preference for the method of incentive might differ according to the socio-demographic characteristics of donors and that the short and long-term effects of incentives on donation might vary.

In Iran 93% of blood is collected from males and 7% is donated by females (Statistics Committee of IBTO, 2010, unpublished data). It seems that the main reason why women refuse to give blood is the fear of becoming anaemic. However, overall about 38% of females who attempt to donate blood are deferred because they do not meet the donation criteria. Approximately one-third of these deferrals are due to a low haemoglobin level based on finger stick capillary samples (Statistics Committee of IBTO, 2010, unpublished data).

Our analysis had some limitations. Firstly, our questionnaire only measured donors' attitudes toward incentives, and these attitudes may be directly associated specifically or directly with different blood donation actions. Secondly, the effect of incentives on non-donor recruitment was not surveyed. This study involved only donors, so possible differences in attitudes between donors and non-donors were not investigated. We are, therefore, not able to generalise our results as representative of the whole population.

Conclusions

In the context of this particular study, most of the donors did not show any desire to receive incentives, and this disinclination was especially apparent among donors who donated for altruistic reasons. It seems that offering incentives to encourage donor recruitment should be handled with caution, because offering incentives may attract high-risk donors and subsequently endanger blood safety. Our survey suggests that using non-monetary incentives may be effective in attracting younger, first-time donors, those with a lower educational level, and donors with a history of more than five donations. Long-term studies are needed to shed more light on the significance of incentives and their influence on donor participation and blood safety.

Acknowledgements

We would like to thank Dr Alireza Tavassoli the head manager of Fars BTO for his help with the research, Maryam Shirmohammadi for data entry and Azade Mosallai for typing the manuscript. We thank Dr. Mehrdad Vosough and Dr Peyman Jafari for the data analysis, Dr. Mosleh Shirazi and Alison Imani for editing the manuscript, and K. Shashok (AuthorAID in the Eastern Mediterranean) for improving the use of English in the manuscript. In addition, we thank...
the donation ward staff for their generous help in data collection.

The Authors declare no conflicts of interest.

References

Received: 20 April 2011 - Revision accepted: 6 July 2011
Correspondence: Leila Kasraian
References