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RESEARCH ARTICLE

ASSESSMENT OF BLOOD DONORS' PERCEPTION IN A HOSPITAL BLOOD BANK AND THEIR INTENTION FOR FUTURE DONATION

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ABSTRACT

Background: Against 8.5 million units/year requirement, the availability is only 4.4 million units/year of which only about 52% is through voluntary donations.

Aim and Objective: To establish motivational and socio-demographic factors for the development of a long-term commitment as a blood donor.

Methodology: Questionnaire-based study collected from 310 participants containing 22 items, including socio-demographic information, donors' evaluation of blood bank service and 23 statements on motivation. Data on motivation was analyzed using factor analysis.

Results: Representation of males (85.4%) for donation were much higher compared to females (14.6%). Unemployed individuals were found to be under-represented. The single, most important, recruitment channel was the influence of active blood donors.

Conclusion: Most donors were recruited by other donors. Their continued involvement as blood donors was primarily linked to altruistic and empathic reasons.

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INTRODUCTION

Against 8.5 million units/year requirement, the availability is only 4.4 million units/year of which only about 52% is through voluntary donations. It is observed that all over the world including developing countries like India blood donors belong to a minority community (Ahuja and Saluja, 2009). "More blood, more life," this was the theme for World Blood Donor Day 2011 on the 14 of June to emphasize the critical need for more people all over the world to become lifesavers by donating blood regularly. Based on reports from 173 countries to WHO, around 93 million blood donors are donating annually (Buchner-Daley *et al.*, 2013). Donation of blood has always been considered as a humanitarian act and a positive behavioral phenomenon. By and large blood donors can be categorized broadly as -Voluntary Blood Donors, Replacement Blood Donors, and Professional Blood Donors. These categories are based on the behavioral patterns of the donors (Dhara and Dinesh, 2012). There are various barriers to donating blood that influence the behavior of people towards blood donations such as cultural beliefs in some ethnic groups, socio-economic factors, their knowledge or lack of knowledge with regards to blood donation and other issues (Antani and Kumar, 2012 and Lobelo *et al.*, 2009). Increase in the level of awareness and positive attitude towards blood donation is the

highest priority of all blood transfusion centers. The initial step for achieving this goal is to perform comprehensive studies measuring the current situation of awareness, knowledge, beliefs, and both positive and negative attitudes of the population towards blood donation (Alfouzan, 2014).

Aim

To explore the motivation and satisfaction towards blood donation among the blood donors in a tertiary care hospital.

Objectives

- To measure the level of satisfaction in blood donation bank
- To find out positive and negative attitudes towards blood donation
- To identify the obstacles and difficulties facing the individuals
- To suggest some motivational factors that can improve the donation process in the future.

MATERIALS AND METHODS

Subjects from the blood donor survey

Questionnaire-based samples were collected from 310 participants. Study periods lasted for 4 weeks (Jan 2015) in the Blood Bank of a tertiary care hospital. Blood bank staff

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distributed a four-page self-administered questionnaire to be filled in during donation and to be returned anonymously. Almost all donors returned the questionnaire, giving a response rate of about 100 percent. The four-page questionnaire contained 22 items, including socio-demographic information (gender, age, social status, education, annual income, etc.), donation history, recruitment method, the donors' evaluation of the blood bank service and 23 statements on motives for donating. The questions on motivation targeted donors with previous donation experience, and first-time donors were therefore excluded from the motivational analysis. The statements on motives were primarily based on the volunteer functions inventory (VFI), elaborated by Misje *et al.*, 2005. The VFI was designed with the dual purpose of providing researchers with a useful measurement of volunteerism and helping the administrators of voluntary organizations to manage human resources. Only four VFI factors of motivation ('value', 'social', 'esteem' and 'understanding') were included in the questionnaire.

- (1) 'Value' motives refer to altruistic and empathic reasons for volunteering (e.g. helping others, compassion, I cause).
- (2) 'Social' reasons reflect the normative influence of friends, family, or a social group that motivates people to volunteer.
- (3) 'Esteem' represents reasons for volunteering in order to feel better about oneself (e.g. feel better about myself, feel important) by helping others.
- (4) 'Understanding' refers to positive experiences associated with volunteering (e.g. 'explore own strengths', 'learn from experience') (Misje *et al.*, 2005)

Statistical Analysis

Factor analysis was performed for the data collected. Factors were extracted using a common factor (principal axis

factoring) solution, because this factor model is recommended for the identification of latent factors. The number of factors to be extracted was decided using the latent root (Eigen value) criterion on the unrotated factor matrix. Only factors with latent roots higher than 1 were included in the analysis. A rotation of the factor matrix was performed in order to achieve a simple and meaningful factor pattern. An oblique rotational method (i.e. permitting factors to be correlated with each other) was selected because this method represents the clustering of variables more accurately than the alternative orthogonal method (i.e. each factor is computed to be independent of all other factors). The statistical analyses were conducted using SPSS software.

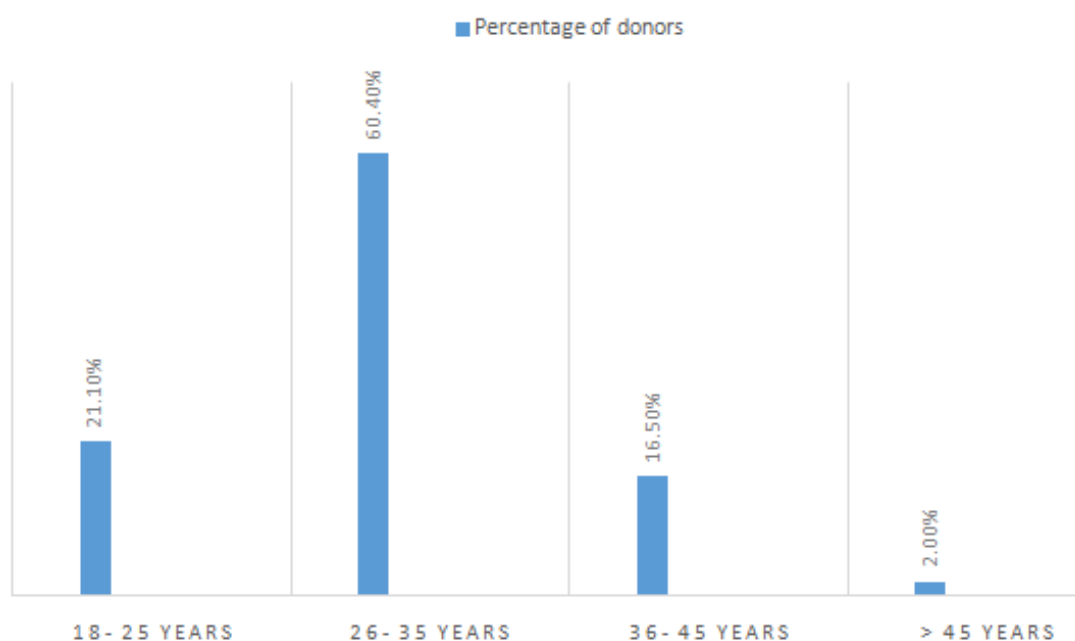
RESULTS

Socio demographic

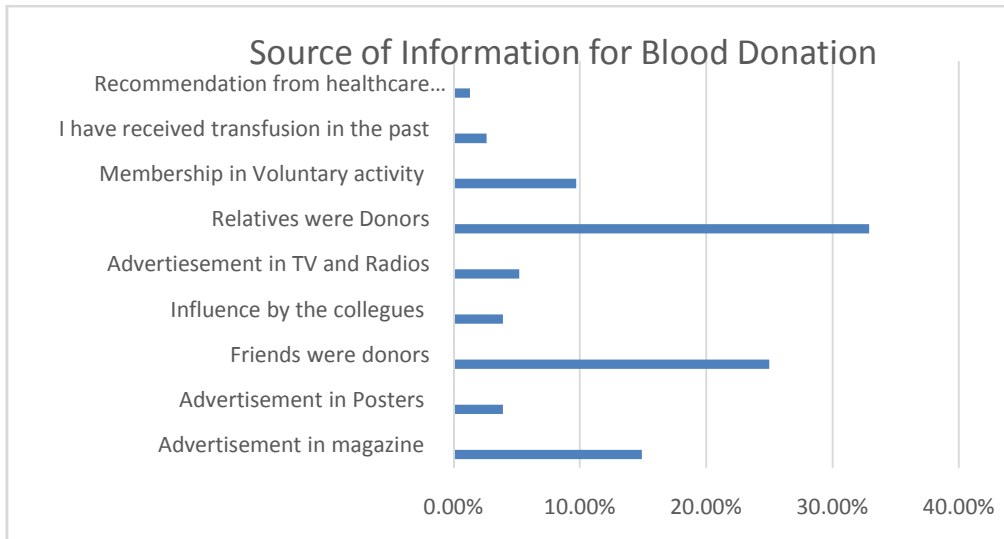
Men outnumbered women among the donors (85.4% vs. 14.6%). The age distribution among donors (26-35 years) was found with maximum percentage of blood donation. The youngest (18-25 years) and oldest (> 45 years) age groups were found to be under-represented among blood donors shown in Graph 1 below. The proportion of married persons among blood donors (64%). The proportion of unemployed individuals was considerably lower among blood donors (11%) than those they were employed (72.7%). The proportion of people working in health and social services was lower among blood donors (2.6%).

Recruitment

The single most important recruitment channel was the influence of relatives who were once blood donors. In total 32.9% of all donors reported that they had been influenced by relatives (graph 2). 25% of the donors were recruited by friends, but only 1.3% by a spouse or partner.



Graph 1. Age distribution among donor



Graph 2. Source of channel for recruitment of donors

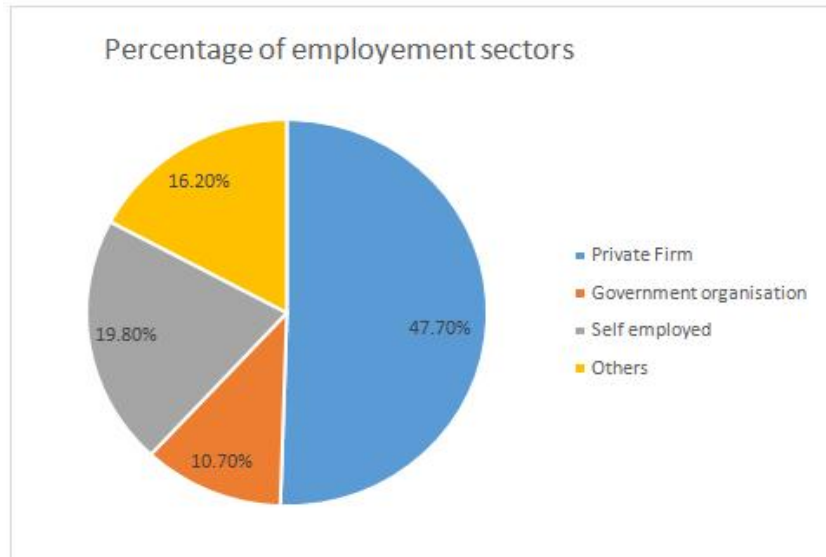


Figure 1. Percentage of Employment among the donors

A total of 3.9% of all donors reported to have been recruited by acquaintances and colleagues. The second main recruitment channel was media advertising. In total 22.9% of donors indicated that they had been recruited via advertisements in newspapers, magazines, leaflets, posters TV or radio. Other types of recruitment represented only a small percentage of the reported influences to volunteer for blood donation. We noted that only 1.3% started donating on the recommendation of healthcare professionals.

Employment

The large percentage of employed donors belonged to a private firm (47.7%) in which 26.6 % were associated with Technology, telecom and media (Figure 1)

Total number of previous donations

43.8% donors said that they donate once a year while 9.7% of the donors had donated more than 5 times a year.

Recruitment channel, and number of donations

Long-term donors were defined as donors with a history of more than 10 donations. It was found that 9.4% of donors have donated more than 10 times. Media-recruited donors (newspaper, TV/radio, poster, leaflet) were found among recently recruited donors among the long-term donors.

Donors' evaluation of the Blood Bank service and facilities

Overall, 89.2% of the Blood bank blood donors reported that they were satisfied (fully or partly agreed to a positive with the professionalism of the collection staff. However, 9.8 % found donation fully or somewhat unpleasant. 86.2% of all

Table 1. Percentage of motivational statement of the questionnaire

| Motivational statement questionnaire | Fully disagree % | Partly disagree % | Neither agree nor disagree % | Partly agree % | Fully agree % |
|--|------------------|-------------------|------------------------------|----------------|---------------|
| A. Blood donation is a cause that is important to me | 4.2 | 2.6 | 4.2 | 9.1 | 79.9 |
| B. Donating blood makes me feel important | 2.9 | 6.5 | 00 | 9.1 | 81.5 |
| C. I get a good feeling whenever I see the blood bank logo, or an advertisement for blood donation | 2.6 | 5.5 | 6.8 | 24.7 | 60.4 |
| D. I seldom think about blood donation, it is a habit | 5.2 | 3.9 | 20.1 | 26.6 | 44.2 |
| E. Donating blood makes me feel better about myself | 2.6 | 7.1 | 00 | 12 | 78.2 |
| F. I think blood donation benefits my own health | 6.5 | 2.6 | 9.7 | 25 | 56.2 |
| G. For me blood donation is primarily a moral duty | 2.6 | 10.1 | 00 | 17.2 | 70.1 |
| H. I donate because I feel great compassion towards the receivers of blood products | 20.1 | 5.5 | 00 | 19.5 | 54.9 |
| I. I donate blood because it is important to help other people. | 2.3 | 6.2 | 00 | 6.5 | 8.6 |
| J. By donating blood I can explore my own strengths | 6.5 | 1.3 | 17.9 | 18.5 | 55.8 |
| K. Donating blood makes me feel needed | 4.2 | 1.6 | 14.9 | 11.7 | 67.5 |
| L. If I don't contribute no one else will | 10.4 | 2.9 | 18.8 | 11.7 | 56.2 |
| M. My colleagues, and other people I know, place high value on volunteering as blood donor | 5.8 | 2.6 | 24.7 | 15.6 | 51 |
| N. An important reason for donation is that I get a health check for free | 20.1 | 5.2 | 00 | 22.1 | 35.7 |

donors gave a positive evaluation of blood bank facilities (table 1). Little criticism was made about facilities (i.e. longer waiting time for donation, although 38% indicated that the blood bank should have longer opening hours). Only 8.1 % of all donors wanted increased material rewards for donating blood.

Motives for donating blood

Twelve of the 14 motivation-related items in the questionnaire were adapted directly from the VFI. The statements A and G correspond to the 'value factor' of the VFI; B, K and E to the 'esteem factor'; M and L to the 'social factor'; J and I to the 'understanding factor'. In addition Five items of our own design were included (statements C, D, E, F, I). These addressed a broad range of reasons for donating blood that were not covered by the VFI.

Factor 1

The first factor that emerged was produced by the correlation between Variables J, K, F. Variables J correspond to the VFI-instrument's 'understanding' factor. Variables K correspond to the 'esteem' factor of the VFI and variables F and N address perceived health benefits from donation ('regular health control', and 'donating improves my own health'). Factor 1 accounted for a large proportion (32%) of the total variance and hence labelled as 'understanding' factor.

Factor 2

The second factor was composed of the responses to statements I, H and A, which cite altruistic and empathic reasons for giving blood. These statements correspond to the VFI 'value' factor.

Factor 3

The third variable was formed by correlation between variables B and E which address increased self-esteem

associated with giving blood (donating blood makes me feel better about myself). These variables correspond to the VFI 'esteem' factor.

Factor 4

The fourth factor was composed of responses to statements M and C. The first variable emphasize the importance of support from other people as reasons for donation, and correspond to the VFI 'social' factor. Variable C addresses positive feelings when seeing the blood bank logo or advertisements for blood donation.

DISCUSSION

Generally, blood donor's socio-demographic characteristics showed some differences. Representation of males (85.4%) for donation were much higher than in the females. The small under-representation of women may be explained by screening of low-weight persons (there is a 45 kg weight limit for donation). The under-representation of women among long-time donors may partly be explained by the cessation of blood donation caused by pregnancy. The under representation of the youngest age group (18-25 years) among blood donors should be noted. However, About 72.4% of the donors had donated more than 4 times is shown in the study. This indicates that the commitment to donate blood is high among donors. Unemployed individuals were found to be under-represented among blood donors. This may reflect reduced health status among the unemployed, which would probably exclude from donation. Higher (40.6%) of donor had income level above 50,000/- annually. Surprisingly, the study also showed under-representation healthcare professionals who are expected to be more aware of the need for blood transfusion than others. Donors who attended some college or higher education surveyed in this study were less satisfied with the overall donation process, noting less satisfaction during the interview and long waiting times. Several reasons may account for this lower satisfaction finding. Donors with more education may have a different perception of the value of their time or may be

accustomed to higher quality service. This supports the need to hire, train, and retain qualified employees who provide excellent customer service while maintaining quality. However the skills of the staffs at the blood bank have been rated higher by the donors in the blood bank which is similar to study done by Mijse *et al.*, 2005. High number of donors were found to be recruited by mass media (TV/Radios/ Advertisements).The importance of social networks as a recruitment channel for blood donation is noteworthy. The decision to begin and to continue blood donation was likely to be influenced more by peripheral persons (co-workers, neighbors) than closeones (spouse, or close friends). Therefore, active blood donors are probably the ones best suited to recruit and to motivate other people to become committed donors.An important aim of this study was to investigate the motivational profiles of the donors and the study showed that most of the donors were motivated by values (altruistic and empathic), social and some slightly self - regarding reasons (esteem, and understanding).

Conclusion

Increased self-esteem from being a blood donor was a more important motivation to donors with a short donation record than to more experienceones. In conclusion, we found that most donors were recruited by other donors. Their continued involvement as blood donors was primarily linked to altruistic and empathic reasons. However, donors were also found to be motivated by moral obligation and some modestly self-regarding motives.

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