

**Abstract Title:** Factors associated with the drop out among voluntary donors in Shimla blood bank, India. **Background:** India, a country of 1.2 Billion, a bed strength of over 0.90 million and blood requirement of 8.5 million units annually, the availability of blood in India is only 4.4 million units, leaving a shortfall of 4.1 million units, signaling an urgent need to increase the donor population from 0.4% to 2% to meet the shortfall. There is no study to know about the factors associated with the high drop out of donors in the country. **Methods:** A comparative study of drop out voluntary donors (n=80) and regular voluntary donors (n=80), donating blood during reference period of 2006, was undertaken to identify the reasons for high dropout of voluntary blood donors. We calculated frequencies of all possible factors identified on literature review and did univariate and multivariate analysis using Bpi-Info software version 3.3.2. **Results:** Multiple logistic regression show that three significant factors associated with drop out of voluntary donors as <25 years age,  $p=0.008$ , no knowledge of age one can donate blood,  $p=0.023$  and no opportunity to know about blood donation,  $p=0.026$ . On univariate analysis other significant factors were, not ever called to donate blood by the blood bank,  $\chi^2 = 14.4, p=0.0001$ , not given blood preferentially to donor when required,  $\chi^2 = 9.1, p=0.002$ , donor reaction, Yates corrected  $\chi^2 = 7.83$ , Fisher exact 1 tailed  $p=0.001$ . **Conclusion:** Our study clearly demonstrates that being young, less educated and having less knowledge of blood donation process are major factors for dropout of voluntary blood donors. Provider issues from the blood bank side like not calling the donors to donate blood, donor not helped to get blood when they requires it and donor reaction are also important factors for dropout. **Recommendations:** On the basis of this study we recommend to initiate a "National Donor Retention Programme" by the national and state blood transfusion councils, incorporating the factors identified in this study. The efforts to empower the donor with the knowledge of the donation process at an early age and making blood available to them in times of need would go a long way to check the dropout and retain the voluntary donors. A call based donor panel system, providing the donors opportunities to donate, especially in remote areas and making first experience of donation as pleasant, will help in retention. It is important to create donor-clubs on the lines of successful model of pledge 25 clubs (Zimbabwe). Informative and knowledge based IEC material need to be developed. There needs to be a donor helpline or toll free number and Participatory involvement of more voluntary agencies.