

**FACTORS RELATED TO BLOOD DONATION AMONG UNDERGRADUATES OF
FACULTY OF HEALTH SCIENCES, THE OPEN UNIVERSITY OF SRI LANKA.**

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Introduction

Donating blood is an act that can save lives of thousands of people worldwide, because blood is an essential element of human life and there are no substitutes for it. One way to save life is through the process of donating blood. The demand for blood and blood products has increased with the increase in life expectancy and the employment of new operational and medical methods (Anderson, 2014). Blood cannot be artificially synthesized thus the demand must be fulfilled by blood donation by eligible donors. Increased demand of blood and its components make it important to increase the awareness in blood donation. It is important to identify the factors that may prompt a person to donate blood or not to donate blood. These factors have not been identified in Sri Lanka in a large scale. University students represent an important group of potential blood donors. Therefore, this study is focused on examining factors related to blood donation among undergraduate of Health Sciences Faculty of OUSL.

Blood and blood component transfusion is one of the major therapeutic practices throughout the world (Anderson, 2014). National Blood Transfusion Service (NBTS) in Sri Lanka requires approximately 30000 blood units annually (NBTS, 2016). From 2014, Sri Lanka shifted to 100% non-replacement blood transfusion policy. Which means whole blood and blood component requirement of NBTS has to be collected through mobile blood donor program and voluntary In-house blood donor program (Perera et al, 2015). According to World health organization (WHO), at least 1% of the population needs to donate blood to maintain minimum reserve required for blood in a country. Botswana National Blood Transfusion Services in (2014) stated that there are few

factors which are associated with blood donation. Such as social responsibilities, peer influence, access to health communication, and knowledge of importance in blood donation.

According to the Alfouzan (2015) population with higher education was more likely to donate blood and also they had a positive attitude towards blood donation. The study carried out among university students of Kerman city, depicted no significant difference in students attitude by gender, while males have more awareness than females on blood donation. Study done in Bangladesh by (Karim et al, 2012) identified that blood donation behavior of the university students is positively associated with their parental level of education. Most studies have been identified that the only factor influences not to donate blood is fear. They also identified that family background, physical status, urgency for family, awareness/knowledge, maturity level also influence blood donation.

University students are one of the potential sources of voluntary blood donors in Sri Lanka. When comparing to other universities in Sri Lanka, OUSL represents a larger scale of students with different backgrounds. Most of them are employed in different fields. Researchers were assumed that this diversity will allow them to collect a lot of information regarding their knowledge, attitudes and socio cultural factors related to blood donation. The positive attitudes towards blood donation might be converted into regular practice by launching appropriate motivational campaign by university administration or government. It might help fulfill the annual demand of the blood in Sri Lanka. Therefore this study will identify the factors related for blood donation.

Methodology

University students based descriptive study was conducted to assess the knowledge, attitude, and socio cultural factors towards blood donation in Health Sciences Faculty of OUSL. The target population was undergraduate students of OUSL. Convenience sampling technique was used for data collection. Undergraduates of age 18 to 55 years, who were completed first academic year of nursing, pharmacology, and medical laboratory sciences were selected by using convenience sampling technique. Study participants who were pregnant during data collection period and who were disagree to participate excluded from the study.

The sample was found to be 423 after considering 6% non response rate. Data were collected by using self-administered questionnaire. Four research assistants were recruited as data collectors. The study was reviewed and approved by the Ethical Review Committee of National Hospital of Sri Lanka. Formal permission letter was also obtained from the Vice Chancellor of OUSL. All participants were adequately pre-informed with regard to the aim and the implication of the study and were clearly told as to their full right to refuse or withdraw their participation in the research at any time. Confidentiality of information was kept including omitting personal identifications such as name of the participants. Collected data analyzed by using SPSS Software version 15.0.

Results

A total of 423 participants were sampled and non response rate 27(6%). Among respondents, 293(69.3%) and 211(49.8%) were females and undergraduates of nursing respectively. About 354(83.7%) of participants were Buddhists in religion and 227(53.7%) of them were married in marital status. Three hundred forty five (81.6%) of them were government employers (Table 1). All of the respondents were heard about blood donation at least once. The majority 252(59.6%) of which were noticed by student notice board followed by 215(50.8%), who were heard from television/social media. About 113(26.7%) and 409(96.7%) of them knew that people can donate blood once in four months and blood donation can be started at 18 years of age, respectively. Two hundred twenty three (52.7%) of respondents knew blood donation is beneficial for the donors' health. Considering fourteen knowledge questions 72(17%) of them scored mean and above indicates about blood donation. The study showed that females were more knowledgeable than males (68%). Those who were at the age range of 23 to 35 years were more knowledgeable compared to reference age groups of 45 years and above.

The research findings indicate that 109(54.8%) unmarried participants and 90(45.2%) married participants have favorable attitudes related for blood donation respectively. Another result from this research demonstrates those 154 (77.4%) females and 45(22.6%) males have positive attitudes regarding blood donation. Regarding the composite measure of attitude, about 385 (90.5%) of the respondents had favorable

attitude towards blood donation. The likelihood of favorable attitude towards blood donation was higher among those who were Buddhists (83.7%).

Conspicuous significant differences were found between the attitudes among Nursing students and other two categories (MLS and B.Pharm.). Among nursing students, 146(73.4%) have favorable attitudes related for blood donation and it was 29(14.6%) and 24(12.1%) in MLS and B.Pharm. students respectively. More than three quarters (308, 72.8%) of the respondents had never donated blood, only few of the respondents (115, 27.2%) had ever donated blood. When considering attitudes among previously donated participants' practices are demonstrate in (Table 2).

Table 1 : Demographic characteristics of the study sample

Characteristics	Frequency	Percentage %
Age		
18-25	97	22.9
26-35	143	33.8
36-45	106	25.1
46-55	77	18.2
Sex		
Male	130	30.7
Female	293	69.3
Ethnicity		
Sinhalese	395	93.4
Tamil	13	3.1
Muslim	12	2.8
Other	03	0.7
Marital status		
Unmarried	227	53.7
Married	196	46.3
Religion		
Buddhist	354	83.7
Hindu	13	3.1
Islam	12	2.8
Catholic	6	1.4
Occupation		
Private sector	28	6.6
Government sector	345	81.6
Student	50	11.8
Monthly income (Rs.)		
< 20000	15	3.5
20001-40000	78	18.4
40001-60000	222	52.5
>600000	30	7.1

Table 2 :The intention and practice of blood donation among Undergraduates of Health Sciences Faculty of OUSL, 2017(n= 423).

Variable	Frequency	Percentage
History of blood donation		
Yes	124	16.1
No	224	52.9
Frequency of donation		
Once	79	63.7
Twice	36	29.0
Three times	9	7.3
Type of blood donation		
Voluntary	79	63.7
For friend/relative	45	36.3
Regular donors		
Yes	6	4.8
No	118	95.2
Willingness in the future		
Yes	112	26.5
No	74	17.0
Type of donation intended		
Voluntary	99	23.4
Replacement	25	5.9
Paid	0	0.0
Reasons of not blood donation		
Didn't think of it	112	33.8
Lack of opportunity	163	38.5
Lack of time	52	12.3
Fear of pain	17	4.0
No enough information	27	6.4
Not eligible	90	21.3
Others	70	10.8

Discussion

Among those were having good knowledge, females were more tend to donate blood than males among undergraduates of Health Sciences Faculty of OUSL. This is noteworthy that because it differs from the findings of previous research done in Sri Lanka states the most of blood donors were male (Jayalal, 2002). Study also found that married respondents are more dominant in blood donation than unmarried.

Majority of blood donors were in 26-35 age groups. It was found that researches done in Australia that majority of blood donors were 45-55 age groups (Polonsky et al, 2010). There was statistically significant association exists between age and previous blood donation. The implication of educational level, employment sector and income level affects blood donation. This study was found between blood donation knowledge and blood donation intentions among current blood donors at Health Sciences Faculty of OUSL (97.4%). The results show that the more knowledge current blood donors have with respect to blood donation, the more intention they have to donate blood. The composite measure of attitude based on mean score 57% of the respondents had favorable attitudes towards blood donation. This study found that major reluctance for blood donation among University students as, lack of opportunity, ineligibility and unable to allocate time for blood donation due to tight academic schedule. The research results confirmed that majority of respondents' religion motivate their intention to donate blood. This agrees with the study findings in Nigeria, that voluntarily donated blood was donated during religious week and club activities (Olaiya, 2003).

Conclusion and recommendations

The present study showed that the prevalence of knowledge and practice of blood donation is found to be good among the age group 26 to 35 years, married, female, and notice board readers were significantly associated with knowledge of blood donation. Having higher income, watching television and using social media and knowledge about blood donation were found to be the independent predictors of attitude. Practice of blood donation higher among respondents who were previously donating blood and had favorable attitude. There should be a regularly scheduled awareness creation and

voluntary blood donation campaign organized at the university level to utilize potential donors who lack time and opportunity to donate blood.

References

Alfousan, N. (2014). *Knowledge, attitudes, and motivations towards blood donation among King Abdulaziz Medical City population*, International journal of family medicine, 40(1), 9- 25.

Anderson, K., Nisenblatt, V., & Norman, R. (2010). *Influencing factors for blood donation*. Australian and New Zealand journal of blood donation. 55(2). 22-27.

Anne, W.R. (2015). *Factors that motivate and hinder blood donation among first time blood donors*. Scholars journal of applied medical sciences, 32(2), 10-35.

Boulware, L.E., Ratner, L.E., Cooper, L.A., Sosa, J.A., LaVeist, T.A., Powe, N.R. (2002). *Understanding disparities in donor behavior*. vol. 4 (7).

Fernández-Montoya, A., López-Berrio, A., & Luna Del Castillo, J.D. (1998). *How some attitudes beliefs and motivations of Spanish blood donors*. Spanish health bulletin. 41(24). 223-280.

Institute of Medicine. (2001), *Crossing the quality chasm: a new health system for the 21st century*. Washington, DC: National Academies Press.

Kaadan, A.N., and Angrini, M. (2009). *Blood transfusion history*. Academic Journal. 20 (1), 2-7.

Karim, R., Alam, M., & Farazi, M.R. (2012). *Factors influencing blood donation behavior*. Bangladesh health journal. 32(8), 22-28.

Kurian, R., Sarkar, S., (2016). *General public knowledge and attitude in New Delhi*. 6(8).

Merav, B.N., Lena, G. (2010). *Investigating the factors affecting blood donation among Israelis*. Journal of Science direct. 65(7).

Mwaba, K., & Kelkelame, M.J. (1995). *Blood donation behavior and beliefs among a sample of high school students in mmabatho*, 18(9). 32-45.

Natan, M. B., & Gorkov, L. (2010). *Investigating the factors affecting blood donation among Israelis*. International journal of emergency nursing, 1(3), 1-7.

National Blood Transfusion service (2016). *Annual Statistics of blood donation in Sri Lanka-2015*.23(12).31-38.

Olaiya, M.A., Alakya, N., &Ajala, A. (2003). *Knowledge, attitude, beliefs and motivations towards blood donation among blood donors in Lagos, Nigeria*.13-7

Perera, D. A. K., Dharmaratne, S. K, Kendangamuwa, K. W.C.U.K, &Gamini, L. (2015). *Determine the factors affecting the blood donors of selecting blood donor programme in western province, Sri Lanka*. International journal of article for scientific & technology research 4(11).