RESEARCH ARTICLE OPEN ACCESS

GENDER DISTRIBUTION OF BLOOD DONORS AND BLOOD RECIPIENTS IN RASHEED SHEKONI TEACHING HOSPITAL DUTSE, JIGAWA STATE, NIGERIA

[1]Alla J, [2]Muhammad, Y [1]Habeeb, A. [1]Mustapha A, [1]Andrew C and [3]Saeed, S.

[1]Department of Hematology and Blood Group Serology, Rasheed Shekoni Teaching Hospital, Jigawa State, Nigeria

[2]Department of Chemical pathology, Rasheed Shekoni Specialist Hospital Dutse.

[3]Department of hematology 44 reference hospital Kaduna.

Abstract:

Background: Blood transfusion centers are saddled with the main responsibility of educating and encouraging people to willingly donate to save life. Despite the percentage of women in all communities being almost equal to that of the men, the women to men ratio for blood donation seems to be quite minimal. The aim of this study is to determine the gender distribution of blood donors and its recipient in Rasheed Shekoni Specialist Hospital Dutse, Jigawa State of Nigeria.

The study was carried out in Rasheed Shekoni Specialist Hospital (RSSH), a tertiary health facility in Dutse, the Jigawa State capital in North Western Nigeria. This retrospective study includes the total of 10,799 blood donors and 10,105 blood recipients from January, 2014 to June, 2018. Data of blood donors and recipients were retrieved from the donors and recipient's register, collated and analyzed using Statistical Package for the Social Science (SPSS).

The result shows that of the 10,799 blood donors, 10,764 (99.7%) were males while 35 donors (0.3%) were females. Out of the total number of 10,105 blood recipients, 4,451 (44%) were males while 5,654 (56%) were females. The study concludes that male blood donors far dominate the female donors, hence there is need to educate the female population on the importance of blood donation and to correct negative misconceptions against female gender blood donation and unnecessary discrimination to meet up with the huge demand for blood.

Keywords **— Gender, blood donors, blood recipients, Jigawa, Nigeria.**

INTRODUCTION

Blood is an essential component of human life that has no any alternative source except from humans. It is regarded as the fluid of life because of its importance in sustaining life. In an incidence of a threat to hematologic condition such as severe anaemia, leukemia, sickle cell diseases, burns, surgical procedures, post partum haemorrhages; blood transfusion became a standard practice and requisite procedure (Dacie and Lewis, 2011). To achieve this, human blood donation remains the key and only source of blood for transfusion. Blood transfusion is the transfer of blood, its components, or products from one or more person(s) called blood donor into another person's bloodstream, the recipient (Dacie and Lewis, 2011). According to National Blood Transfusion Service (NTBS), as at 2006, Nigeria, with an estimated population of over

150 million requires about 1.5million units every year to cater for the health needs of its citizens, but approximately, only a half million units of blood were donated. This highlights a very poor blood supply in the country (Aneke and Chide, 2017). This has continued to cause a debilitating effect on health indices and put a limit to lots of possible medical interventions. Globally, an effective healthcare delivery is known to be sustained by a robust supply of safe and accessible blood units for lifesaving in some conditions needing blood transfusion (WHO, 2013). There is an exceedingly high demand for blood in Sub-Saharan Africa as a result of heavy burden of infectious diseases. In view of this, bout 2 million units of blood is needed yearly; however, there is still a considerable shortage of blood to meet this high demand. Jigawa State and Nigeria in general are not left out in this quagmire. Consequently, the few blood transfusion centers are saddled with this immense responsibility of educating and encouraging people to willingly donate to save life. The aim of the current study is to determine the gender distribution of blood donors and its recipient in Rasheed Shekoni Specialist Hospital Dutse, Jigawa State of Nigeria.

METHODOLOGY

Background of the Study Area

This study was carried out in Rasheed Shekoni Specialist Hospital (RSSH), a tertiary health facility in Dutse, the Jigawa State capital in North Western Nigeria. RSSH provides a measure of emergency, inpatient and outpatient services such as medical, surgical, laboratory, obstetrical, gyneacological, pediatric and so on.

Study Design and Population

This is a retrospective cross-sectional study, carried out on voluntary and family replacement blood donors in Rasheed Shekoni Specialist Hospital's blood bank and blood recipients.

Ethical Clearance: Ethical approval was sought and given by the Ethical Committee of the hospital

Sampling Method

Data of blood donors and recipients were retrieved from the donors and recipient's register, collated and analysed using Statistical Package for The Social Science (SPSS)

RESULTS

This retrospective study includes the total of 10,799 blood donors and 10,105 blood recipients from January, 2014 to June, 2018. Table 1 shows that of the 10,799 blood donors, 10,764 representing 99.7% were male while 35 donors representing 0.3% were female donor.

Table 1: Donors' percentage based on gender

Sex	Frequency	Percentage
Male	10764	99.7
Female	35	0.3
Total	**10799**	**100**

Figure 1: Donors' percentage based on gender

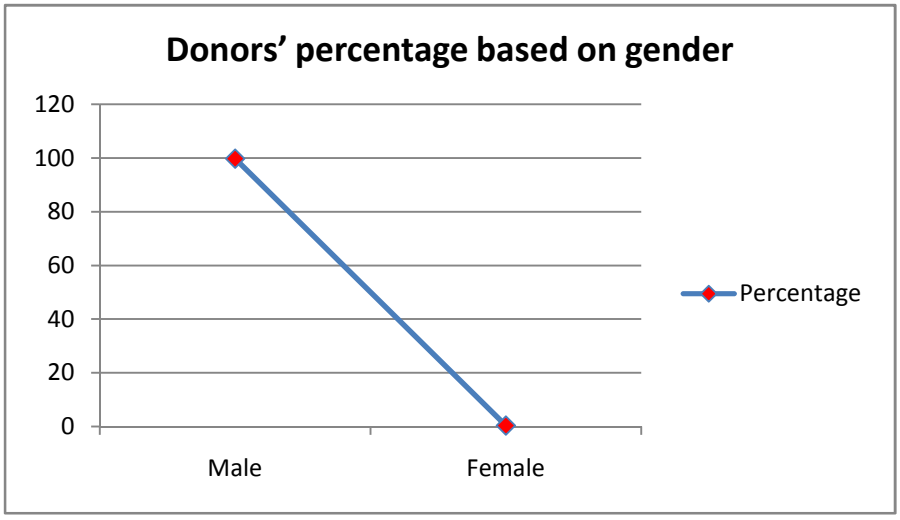
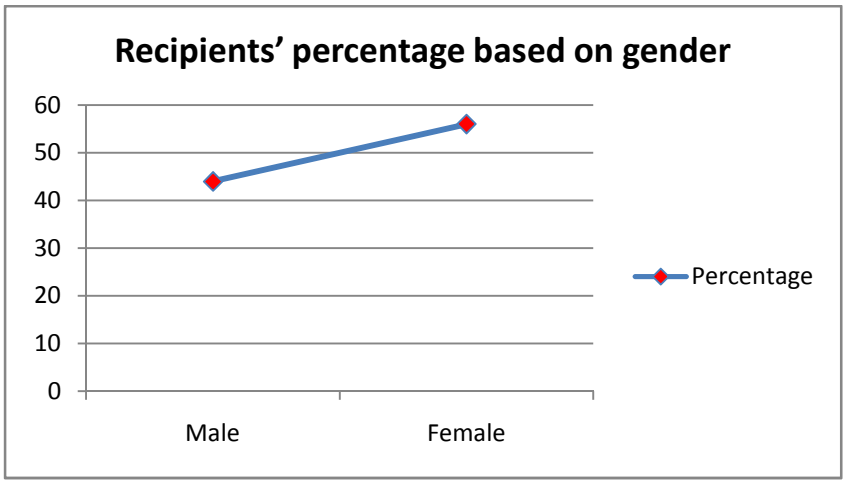


Table two shows that out of the total number of 10,105 blood recipients in Rasheed Shekoni Specialist hospital, 4,451 representing 44% were male while 5,654 representing 56% were female

Table 2: Recipients' percentage based on gender

Sex	Frequency	Percentage
Male	4451	44
Female	5654	56
Total	**10105**	**100**

Table 2: Recipients' percentage based on gender



DISCUSSION

In this retrospective study, we observed male gender dominance over the female blood donors in Rasheed Shekoni Specialist Hospital, Dutse Jigawa state. This finding is analogous with the study conducted in Sokoto where 99.4% were male and 0.64% were female Erhabor *et al.,* (2013). In Sokoto State, blood donation is basically affected by cultural beliefs, religious misconception, low level of education, poverty, socioeconomic factors, and the level of civilization (Erhabor, *et al.,* 2015). Jigawa state which is also a state within the Northwestern part of the country is also enshrined by these factors.

In a similar study conducted in University College Hospital Ibadan in South Western region of Nigeria, female constituted 9.9% among blood donors (Anyanwu *et al.,* 2015). This is far higher than our finding in Jigawa, North Western region of Nigeria which was 0.3%. This difference could not be unconnected to poor girl child education in the Northwestern Part of Nigeria as compare to the western part of the country as level of education can help in correcting female gender negative perceptions in blood donation (Olaiya *et al.,* 2004).

In other parts of West Africa, women contribute 10% in Ghana (Allain, *et al,* 2008), 28.8% in Burkina Faso (Nebie *et al.,* 2007) and 30% in Togo (Agbovi *et al.,* 2006). Report from developed countries of the world recorded a higher female participation in blood donation; Swaziland account for 40% of female donors, 45.5% in United states; 50% in Norway and 55% in Great Britain and Finland (Allain *et al.,* 2008).

On the other hand, we observed female gender dominance among blood recipients in Rasheed Shekoni Specialist Hospital. This could not be far from the fact that women are more presented in the hospital for clinical attention than the male counterparts. According to an Analysis by the Federal Agency for Healthcare Research and Quality, 59% of hospital admissions in 2007 are women (AHRQ, 2007). This could be as a result of female inability to control physical, social and emotional pains as compared to men.

CONCLUSION

This study concludes that male blood donors far dominate the female donors, while female blood recipients dominate the male blood recipients.

RECOMMENDATION

To correct this low female gender participation in blood donation, there is need to educate the female population on the benefits and importance of blood donation as well as correct negative misconceptions against female gender blood donation to meet up with the huge demand for blood.

REFERENCES

Abolghasemi A, Tabrizi H, and Namini M. (2008). Status of blood transfusion services in Iran. *Asian Journal of Transfusion Science;* 2:13-17

Agbovi K, Kolou M, Feleke L, Haudrechy D, North M, Akuete Y (2006) Knowledge, attitudes, practices about blood donation. A sociological study among the population of Lome in Togo. *Transfus Clin Biol* 13: 260 – 265

Allain J, Sarkodie F, Boateng P, Asenso k, Kyerematen E, Owusu O (2008) A pool of repeat blood donors can be generated with little expense to the blood centre in Sub-Saharan Africa. *Transfusion* 48:735-741

An Analysis by the Federal Agency for Healthcare Research and Quality, 2007

Aneke C and Chide E (2017) Blood transfusion safety; current status and challenges in Nigeria. *Asian J Transfus Sci. 11(1): 1-5.*

Anyanwu-Yeiya C, Sonubi O, Kotila T. (2015) Targeting Females as Voluntary Non Remunerated Donors in Developing Nations. *J Blood Transfus* S4:S4-002

Dacie J and Lewis M (2011) Practical Hematology. London. *Churchill, Livingstone*. Pp 483 – 486.

Erhabor O, Isaac Z, Abdurahman Y, Ndakotsu M, Ikhuenbor D, Aghedo F, Ibrahim K, Ibrahim S. (2013) Female Gender Participation in the Blood Donation Process in Resource Poor Settings: Case Study of Sokoto in North Werstern Nigeria. *J Blood Disorders Transf* 5:176

http://www.who.int/bloodsafety/universaalbts/en/index.html

Marco B and Barbara G (2010) Gender differences in giving blood: a review of the literature. Blood *Transfus*; 8:278-287. doi: 10.2450/2010.0156-09

National Blood Transfusion Service, Federal Ministry of Health (Nigeria). The National Blood Policy. Abuja. 2006.

Nebie Y, Olinger C, Kafando E, Dahourou H, Diallo S, et al (2007) Lack of knowledge among blood donors in Burkina Faso (West Africa); potential obstacle to transfusion security. *Transfus Clin Biol* 14: 446 – 452

Olaiya M, Alakija W, Ajala A, Olatunji R, (2004) Knowledge, attitudes beliefs and motivations towards blood donations among donors in Lagos Nigeria. *Transfus Med* 14: 13-17

WHO. Universal Access to Safe Blood. 2010.

