AWARENESS AND ATTITUDE ON BLOOD DONATION AMONG STUDENTS OF FEDERAL COLLEGE OF EDUCATION (FCE), KANO, NIGERIA

Dalhatu, A.[a], Hayat, G.I.[c] Alhassan, A.W[b] Jafar, Y.[d], Khadija, N.N.,[a] Hamza, R.,[a] Aisha, S. and Hadiza, M.[a]

a. Department of Nursing Sciences, Bayero University Kano
b. Department of Medicine, Ahmadu Bello University, Zaria
c. Department of Nursing Sciences, Ahmadu Bello University Zaria
d. Department of Nursing Sciences, Federal University Birnin-Kebbi

Corresponding author: adamudalhatu206@gmail: 08039503072

ABSTRACT:

Background: In Nigeria there is increased demand for blood donation particularly in case of emergency situations, childbirth, Road Traffic Accidents, and medical condition that needs urgent blood supply. Also there is paucity of data in Nigeria on blood donation awareness and attitudes among students of tertiary health institutions to tackle any prevailing and prospective problems. Therefore, this has informed the need to understanding the, attitude and level of awareness associated with blood donation among students of Federal College of Education Kano.

Methods: The study employed a descriptive cross sectional design. A total number of two hundred and ninety nine formed the sample size. The study participants were recruited using multistage sampling technique. A standardised data collection form was used to collect data from the respondents. The collected data was analysed using SPSS Version 20 and presented in frequency, percentages and tables.

Results: The results showed that 280 (94.3%) are aware of blood donation, and 71.7% have positive attitude towards blood donation.

Conclusion: In conclusion majority of the respondents have adequate awareness level on blood donation, with positive attitude towards blood donation. Therefore, the study recommended the development of blood donation policies / program alongside with Students' union government and should include blood donation drive in their activities with emphasis on voluntary non-remunerated blood donation.

Keywords: Awareness, Attitude, Practice, Blood donation

INTRODUCTION

World Health Organization, International Federation of Red Cross and Red Crescent societies jointly developed a global framework for action to achieve 100% voluntary blood donation. To achieve this in Nigeria adequate data on the awareness and attitude towards blood donation is deem necessary. World Health Organization (2017) recommends Voluntary non-remunerated donations (VNRD) as the best type of blood donation which is an altruistic donation and so there is less concealment of any important information by donors as it is a selfless form of donation for the sake of humanity. It is also shown that, several measures are being taken worldwide to achieve 100% VNRD. This approach has been reported to be for in the sustenance of blood banks and hence the betterment of health care services (WHO, 2017). Although, VNRD is the most common type of donation in the developed countries, it has remained a problem in most developing countries, particularly Nigeria where family donation and remunerated (paid) remain the most common (Kowasalya & Vijaykumar, 2013). Other types of blood donation are remunerated.

According to World Health Organization (2017), Out of the 112.5 million blood donations collected globally, approximately half were collected in high income countries which are home to only 19% of the world population.

Blood donation rate is as low as 4.6 donations per 1000 of a population in low income countries, while it is 33.1 and 11.7 donations per thousand of a population in high and middle income countries respectively. In Nigeria there is increased demand of blood, in case of emergency situations, childbirth, car accidents, and medical condition which needs urgent blood supply, but there is decrease supply which does not meet the requirement. This is as a result of lack of awareness on the importance of regular, voluntary, and unpaid blood donation, problems of believes, suspicious, and misconception, and also there is paucity of data in Nigeria on blood donation which makes it difficult to decipher actually all concerns about blood donations and how to tackle any prevailing an prospective problem (Erhabor & Mainasara, 2013). Donating blood is an act that save the lives of thousands of people worldwide because blood is an essential element of human life and there are no substitutes for it (Kowasalya & Vijaykumar, 2013). According to Bilal, Haseeb, Zahid, Larshkwerla, Saeedududin & Arshad (2016). Blood donation refers to the process of collecting, testing, preparing and storing blood and its components. It saves people's lives and help in the treatment of many medical conditions. Millions of blood units were collected from donors every year but demands are increasing day by day that is pushing and this pushes for sufficient and timely provision of blood (Ahmed, Zafar, Khan, Anjum & Siddique, 2014) .Blood has always held secretive charm for all and is considered to be the living force of our body, and it has been used since 1930 for various purposes. After the introduction of blood banks it becomes more widely used in patients. Today, the use of whole blood is a well-accepted and commonly employed measure without which many modern surgical procedures could not be carried out (Ahmed, et al., 2014). An overwhelming 99 percent of the 500,000 women who die each year during pregnancy and childbirth live in developing countries, with haemorrhage which invariably requires blood transfusion, the most common cause of maternal deaths (World Health Organization 2009).

Ideally blood transfusion is a safe process, but unfortunately there are a number of risks associated with transfusion such as; viral, bacterial and parasitic infection on recipient. At times when individuals lost large volume of blood due to serious accidents, obstetric haemorrhages or any other causes of anaemia due to medical or surgical conditions, blood transfusion could be lifesaving procedures. Therefore, ensuring the availability of safe blood at all times would have greater value for saving life through transfusion for those who needed it most (Center for Disease Control & Prevention, 2011).

MATERIAL AND METHODS
Research Design **:** The study employed a descriptive cross sectional research design.
Study setting:
The study was conducted at Federal College of Education (FCE), it was located in northern Nigeria that was established in 1961. It's located along Kofar Famfo in the center of the city of Kano. The college is among the best known federal colleges in Nigeria. It was established to achieve the stated goals and objectives of college of educations.
Target Population:
The study was carried out among National Certificate of Education (NCE) students of Federal College of Education Kano (FCE).
Sampling Technique **:** A Multistage sampling was utilised for this study.
Sample Size determination:
The formula for calculating the sample size was Cochrane formula

$$n=\frac{PQZ^2}{d^2}$$

n= Sample size
P= Precision prevalence=23% (Ahmed, Zafar, Khan, Anjum & Siddique, 2014) Ahmed et al..
Q=1-P
Z=Confidence interval at 95% which is constant=1.96
d=Degree of error at 95% confidence interval = 5%=0.05
Therefore;

$$n=\frac{0.23 \times 0.77 \times 1.96^2}{0.05^2}$$

$$n=\frac{0.23 \times 0.77 \times 3.8416}{0.0025}$$

$$n=\frac{0.6803}{0.0025}$$

n = 272
Approximately = 272plus 10% attrition which is 27. Hence the total sample size is 299

Research Instrument:

The instrument for data collection was self administered questionnaire (SAQ), the instrument was adapted from Salaudeen & Odeh (2011).

Method of Data Collection:

The Self Administered Questionnaire was used to collect data which was conducted over a period of 1 week, the researcher and her assistants distributed the questionnaire was distributed to the respondents and the questionnaires were completed uninterruptedly with the help of the researcher and her assistants research team.

Data Analysis:

The data collected from the study was analysed using descriptive statistic with the aid of statistical package for social sciences (SPSS) version 20, and the analysed data was presented and summarized in form of simple frequency, tables, percentages and Charts.

Ethical Consideration:

Ethical approval letter was obtained from Federal college of education, Kano Research Committee for the study with Ref. number FCE/GEN.4/Vol.V/680.

RESULTS

Table 1: Distribution of the respondents according to their socio-demographic characteristic. **N=280**

Variables	Frequency	Percentage %
Age in years		
18-23	120	42.9
24-30	120	42.9
31-36	35	12.5
37 and above	5	1.8
Gender		
Male	149	53.2
Female	131	46.8
Tribe		
Hausa/Fulani	211	75.4
Yoruba	38	13.6
Igbo	29	10.4
Others	2	0.7
Marital status		
Single	205	73.2
Married	51	18.2
Divorced	8	2.9
Widow	16	5.7
Course of study		
Business education	66	23.6
home economics	70	25.0
English/hausa	74	26.4
English/Islamic studies	70	25.0
Religion		
Islam	257	91.8
Christianity	23	8.2

The table above shows majority (42.9 %) of the respondents are between the age of 18-23 and 24-30 respectively. With regards to religion majority (91.8 %) of the respondents are were Muslims, and 75.4% of them respondents are were Hausa by tribe and others reflected in the table above.

Table 2. Distribution of the respondents according to their Awareness on blood donation N=280

Variables	Frequency	Percentage
Awareness of blood donation		
Yes	264	94.3
No	16	5.7
Total	**280**	**100**
Aware of place of blood donation		
Aware	259	92.5
Not aware	21	7.5
Total	**280**	**100**
Conditions that warrant blood transfusion include(s)		
Severe blood loss		
True	118	42.1
False	162	57.9
Surgery		
True	59	21.1
False	121	78.9
Sickle cell disease		
True	42	15.0
False	238	85.0
Undecided	61	21.8
Total	**280**	**100**
The minimum weight required for an individual to donate blood is		
<45 Kg	92	32.9
45 Kg and above	100	35.7
Undecided	88	31.4
Total	**280**	**100**
The age range in which someone can donate blood		
18 – 65 years	202	72.1
30 – 80 years	32	11.4
12 – 40 years	10	3.6
Undecided	36	12.9
Total	**280**	**100**
Frequently in which blood can be donated by an individual is		
Once in a years	141	50.4
Twice in a year	65	23.2
Thrice in a year	11	3.9
Undecided	63	22.5
collected blood need be tested before transfusing to the recipient		
True	199	71.1
False	38	13.6
Undecided	43	15.4
Source of information regarding blood donation		
Media	77	27.5
Lecture	24	8.6
Pamphlet	38	13.6
Hospitals	108	38.6
Others	3	1.1
Undecided	30	10.7
Total	**280**	**100**

The table shows the awareness level of the respondents on blood donation, almost all (94.3%) of the respondents are aware of blood donation, Majority (92.5%) of them respondents know the place of blood donation.
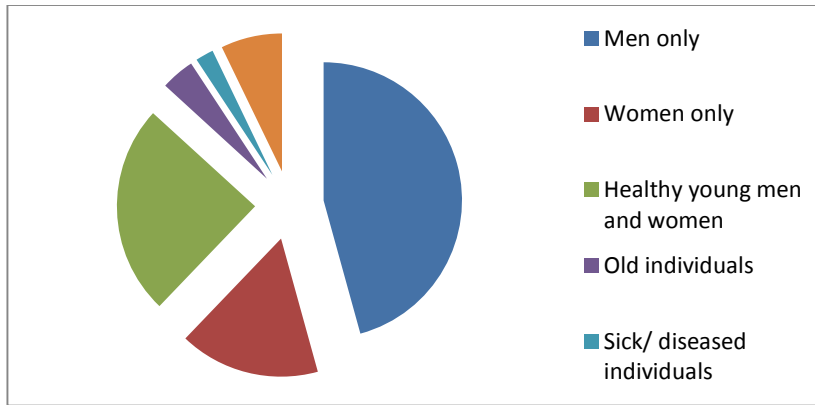

Figure 1. **A Pie Chart Showing Response of the Respondents on Who To Donate Blood**

Majority of the respondent reported that only men can donate blood, 16.4% identified women, while 24.6% identified healthy young men and women

Table 3. Distribution of the respondents based on their attitude toward blood donation
N=280

Variables	Frequency	Percentage
Blood donation is good		
True	201	71.7
False	53	18.9
Undecided	26	9.3
Total	**280**	**100**
Blood donation is safe		
Yes	140	50.0
No	100	35.7
Undecided	40	14.3
Total	**280**	**100**
Reason for blood donation not safe	62	22.1
The procedure is painful/ injurious	31	11.1
Disease can be transferred via the blood	7	2.5
The donors blood will turn low		
willing to donate blood in the future		
Yes	197	70.4
No	39	13.9
Undecided	44	15.7
Can refer a relative or friend to donate blood		
Yes	221	78.9
No	42	15.0
Undecided	17	6.1
The best source of blood donation is		
voluntary donor	99	35.4
Replacement donor	57	20.4
Remunerated donor	16	5.7
Self donor	37	13.2
Undecided	71	25.4
Total	**280**	**100**

Table above shows the attitude of the respondents towards blood donation, majority (71.7%) of them respondents have positive attitude towards blood donation and half (50.0%) considered blood donation safe, and about two-third (70.4%) are willing to donate in the future.

DISCUSSION
In this study the demographic observation revealed that most of the respondents are between the age's ranges of 18-23 and 24-30 respectively, because majority of the NCE two students are within this age limits. Similar demographic observations were reported from around the world (Chalachew et al, 2014)

In this study it was found that majority of the respondents are aware of blood donation and place of blood donation, and majority of the respondents know the importance of blood donation. This is in contrary with the study conducted among students of Crete, by Merkoures et al, 2005 that 63.1% are ignorant of the benefits of blood donation by (Merkoures et al, 2005). It is also apparent that more than four-fifth of the respondents have a general idea about what blood donation entails.

However, only few of the respondents are aware about the number of times one can donate in a year. This supports an Indian study conducted by (Uma, Arun & Arumugam, 2013) and the Minnesota study by (Allerson, 2012).This shows lack of awareness of the respondents about the number of times one can donate, this may be largely due to limited

information given about blood donation. In this study it was revealed that students' attitudes toward blood donation is important provided students would be encouraged to donate blood. Studies all over the world about attitude toward blood donation have shown positive attitudes toward blood donation. This study have shown that four-fifth of the respondents have positive attitude toward blood donation This finding supports studies conducted in Poland by Radocho, Anatomy and Ur (2007).

Five-seventh of the respondents believed that blood donation is good and half considered it safe.

CONCLUSION
The study concluded that majority of the students have adequate awareness on blood donation, the attitude of the students towards blood donation was found to be positive

RECOMMENDATION
i. The Government should include voluntary blood donation in Secondary Schools curriculum to teach students early about the act and its various benefits.
ii. Sensitization should begin at secondary school by blood donor organizers.
iii. Provision of adequate information about Voluntary non remunerated donation through all forms of media should be intensified so as encourage altruistic donations

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