International Journal of Intellectual Discourse (IJID)
ISSN: 2636-4832 Volume 3, Issue 2. December, 2020

A sociological assessment of youth's knowledge and behaviour towards voluntary blood donation in Gombe metropolis

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Abstract
The purpose of this study was to assess the Knowledge of youths and practice of voluntary blood donation in Gombe metropolis. The study examined the knowledge of youths towards voluntary donation and identified factors that motivate or discourage youths to voluntarily donate blood. A cross sectional descriptive survey was conducted and multistage cluster sampling technique was employed in selecting 375 respondents. The data was gathered through semi-structured questionnaire and coded in SPSS (version 16.0.). Findings revealed high level of knowledge and poor voluntary blood donation behaviour, as only 6.1% (23) of the youths were voluntary blood donors. The study concludes that having good knowledge is a necessary condition but not sufficient to predict the blood donation behaviour of an individual. The study recommended that the awareness campaign should be extended beyond world blood donor day, especially in public place such as market squares and worship centres, so as to convert the knowledge into actual blood donation.

Keywords: Knowledge, Youths & Voluntary Blood donation.

1.0 Introduction

This section sought to give a general overview on youth's knowledge and behavior toward voluntary blood donation. It covers background to the study, Statement of research problem, Research question and objectives of the study

1.2. Background to the Study

Blood is a scarce valuable natural gift to humans, essential for life sustenance. Despite advances in science and technology, alternatives to human blood are yet to discovered. As such blood donations by younger persons remain the sole means of saving people in need. Every year about 234 million major operations are performed worldwide; of which 63 million people undergo surgery for traumatic injuries, 31 million for treating cancers and another 10 million for pregnancy related complications (Lorenzo et al., 2011). However, if blood collection agencies are to continue meeting the demand for a safe and adequate blood supply, experts must find ways to address the acute shortage of donors currently experienced across the younger generation in Nigeria. A critical demographic target is the youthful segment of the population, who could supply blood for years to come if they became regular donors Windley, 2006). To illustrate how beneficial establishing young donors could be, one should consider a person turning 17 in 2015 who commences blood donation every 56 days until the age

of 76; he or she would donate nearly 48 gallons. Since each unit of blood could save up to three different individuals, the donations from this routine, lifelong donor would potentially safe 1,152 lives (American Red Cross, 2016). Thus, if blood collection agencies could establish youths as regular blood donors early on, it is hoped that they would form a lifelong commitment to donating blood, thereby helping to stabilize supply for years to come (Damesyn et al., 2003:2).

In an attempt to encourage non-remuneration of blood donation, the World Health Organization (WHO, 2020) maintained that, an adequate and reliable supply of safe blood could be assured by regular, voluntary, unpaid blood donors. Such donors are the safest group as the prevalence of blood borne infections like HIV/AIDs and Hepatitis are the lowest among them because, the stringent process of recruiting the donors involves rigorous clinical checkups such as blood screening which may lead to acceptance or rejection of the donor. To meet the global demand for blood and blood products, some studies have considered youths as a potential source (Ngoma, 2013). Focusing collection on this age group is for reason that they are considered healthy, active, receptive, and comprise most of the population. They are the healthiest source of safe blood compared to another age group who may be carriers of TTIs (World Health Organization, 2010 & Arsad et al., 2016).

1.3 Statement of the Research Problem

Over the years (i.e. since the discovery of first three human blood groups in 1930), severe shortage of blood supply has remained one of the major challenges observed in the blood services across the globe. The need for blood is growing daily as a result of advancements in clinical medicine which require large quantity of blood for heart or kidney surgeries, child deliveries, attending to victims of road traffic accidents, victims of terrorism and insurgent attacks and a surge in various other medical conditions that necessitate blood transfusion. It is for this reason that WHO (2020), recommended that donating blood by 1% of the population is sufficient to meet a nation's most basic requirements for blood donations.

The trend of blood donation in Nigeria is deteriorating, even though half of the population in the country is medically fit for donation, only five out of one thousand are voluntary blood donors (5 per 1000 population) as against the 1% recommended (WHO, 2020). Inability to meet the 1% requirement indicates the severe shortage of blood supply for the vast majority of the population.

The demands for blood in Gombe town seem to overwhelm the capacity of existing blood banks within the state due to surges in cases of road accidents, activities of political thugs like '*Yankalare'* and other medical conditions that necessitate the need for blood transfusion. In addition, Gombe State shared borders with Borno, Yobe and Adamawa which are afflicted by Boko Haram insurgency. The activities of the sect often put the State at fringes of attacks. Gombe metropolis suffers series of attacks, with majority of the victims sustaining serious injuries that required blood transfusion. Still, the supply of bloods to meet the daily need and prepare for the unforeseen contingences remained low. It is for this reason that this study investigated whether youths have knowledge about blood donation and how such knowledge relates to voluntarily donation behavior to the people in dire need of it.

1.4 Objectives of the Study

The main objective of this study is to assess youth's knowledge and voluntary blood donation behaviour in Gombe Metropolis. The specific aims of the study were:

1. To examine the relationship between youth's knowledge and practice of voluntary blood donation in Gombe Metropolis.
2. To identify factors that motivates or discourages youth to voluntarily donate blood.

Review on Blood Donation Behaviour

2.1 Knowledge of Blood Donation

There is a growing body of literature showing majority of the population in developing countries having little or no knowledge about blood donation which often leads to misconceptions (Hussaini, 2018). To support the argument Kabida, Serge, Ramazani, and Michele (2014) conducted a study in Bukavu, Democratic Republic of Congo (DRC) to assess the knowledge, attitude and practice of blood donation among the general public. A cross-sectional study was conducted using416 people between 18 and 65years. The data were gathered using structured questionnaire. Descriptive statistics and Pearson Chi-square Test and Fisher's Exact Test were used to analyze the data collected. The findings revealed that more than half (61%) of the respondents did not know the practice of donating blood. Musa, Awoyemi, Bolariwa Samuel, Salaudeen (2011) conducted a study to assess the level of knowledge and practice of blood donation in Kwara State, Nigeria. Multistage sampling was used to select the sample of 936.Findings revealed that only one out of four respondents knew that a person could donate blood up to 3 times in a year. Nwabueze et al. (2014) conducted a cross-sectional descriptive study to ascertain the perception of blood donation among medical and pharmaceutical science students of Nnamdi Azikwe University, Awka. Samples of 294 respondents were drawn and stratified sampling was applied in selecting the students from different levels across the two faculties. The data collected were analyzed using frequency tables and chi-square was used to test the association between the knowledge of the students on blood donation and the course of study. Findings revealed that although the students had good knowledge but the practice of blood donation still remains very low.

2.2 Motivations for or against Donating Blood

There is growing body of evidence showing that people also perceive both blood donation and transfusion as risky (Finncane, Slovic, Mertz, 2000; Farrell, James & Lowe 2002; Lowe and Ferguson, 2003). For instance, negative attitudes like blood bank sell the blood, unfounded fears such as donation of blood is harmful to the body and often misunderstood risk associated with transfusion to blood. Whereas the reasons for donating blood in Congo were for family need, some preferred money before donating and few agree to give only if doctor exercised pressure and on the reasons for not donating blood, respondents opined that regular blood donation were synonymous with regular sacrifice; that to give blood is to give life and strength which may result to loss of physical and spiritual strength that make person vulnerable to disease and witchcraft (Kabida et al., 2014). Salaudeen and Odeh (2011) revealed that fear of fainting (41.0%) and the perception that it exposes one to HIV/Hepatitis (49.8%) were the main inhibitors to voluntary blood donation mentioned by the respondents. Adding that few of the respondents felt it would result in weight loss (23.3%). Tedesse

et.al (2018) found in their study medical reason was found to be the most common reason for not being regular donor among students.

However, most of the literature reviewed was based on the assumption that University students by virtue of the age and knowledge would likely form the potential donors if consulted. Ironically findings from this category of population (i.e. University students) would not be enough to represent the opinion of youths outside the University community thereby making generalization difficult. Therefore, this study was different one in that; the focus was a shift from the University based survey to the population of youths within the metropolis.

Methodology

3.1 Study Population

The target populations the study is youths' people. According to the Nigerian National Youth Policy (2009) one out of every three Nigerians falls within the ages 15-35 years. In line with this the target population of youth in Gombe metropolis would be 1/3 of the overall population of Gombe LGA i.e. 360,640 which is equal to 120,213. The categories of respondents comprised both males and females aged between 18-35years.

3.2 Sample Size and Sampling Procedure

The Samples of three hundred and eighty-four (384) people were selected in accordance with calculator.net (2015) formula for sample size determination to represent the entire population of youth in the study area. A multi-stage cluster sampling was adopted due to the homogeneous nature of the study area. Gombe town has eleven (11) wards and these wards formed clusters in the first stage .In the second stage, four (4) wards were selected using probability sampling techniques. The first ward (i.e Shamaki) was selected using simple random sampling and a lottery system. The remaining three selected wards namely- Bolari East, Herwa Gana and Pantami were selected using systematic sampling by skipping two wards and picked the subsequent ward. In the third stage two streets were selected in each of the four wards using balloting system. Adult aged between 18-35years was given the questionnaire to fill.

3.3 Data Collection

The study used both primary and secondary data; the primary data was obtained in field work using quantitative techniques. The secondary involved wide consultation of books, journal, newspapers, magazine and documented materials relevant to the subject of discussion.

3.4 Methods of Data Presentation and Analysis

The data collected from the field were coded in the SPSS, presented in tabled form using simple percentages and chart, analyzed and finally interpreted.

Data Presentation and Analysis

4.1 Knowledge of Youths toward Voluntary Blood Donation

The study investigated the knowledge of youth in relation to the practice of blood donation. These include knowledge on the existence of voluntary blood donation, sources of information, place of donation, benefit, problems of non-voluntary and possible infection contracted during blood donation.

Table 4.1.2: Information about the Existence of Voluntary Blood Donation

Ever heard	Frequency	Percentage %
Yes	315	84
No	60	16.0
Total	**375**	**100.0**

Table 4.1.2 indicated that nearly all (84%) the respondents said they were aware of voluntary blood donation. except for the

sixteen percent (16%), of the respondents who claimed they did not heard of it. Suggesting that majority of the respondents have heard the existence of blood donation in the study area. It implies to some significant degree youths knew about voluntary blood donation but the extents to which these high levels of awareness translate into donation behavior remain uncertain partly due the unpredictable nature of human behavior.

Table 4.1.3: Respondents' Source of Information on blood donation

Sources	Frequency	Percentage %
Friends	105	33.3
Media	93	29.5
School	56	17.8
Sensitization Campaigns	39	12.4
Others	22	7.0
Total	315	100.0

Respondents were asked to give source of information as displayed in Table 4.1.3. Majority claimed to have obtained information from friends, media and schools whereas sensitization campaign and others (i.e. family) as sources of information play abysmal role in dissemination of information about voluntary blood donation.

Table 4.1.4: Knowledge about the Place where Blood could be Donated

Place of donation	Frequency	Percentage %
Hospital	282	83.4
Mobile bank	3	0.9
Blood bank	32	9.5
Do not know	21	6.2
Total	315	100.0

Still with reference to table 4.1.3 respondents who answered in the affirmative, were asked to locate the place where blood can be donated. The above illustration (i.e table 4.1.4) indicates that, large proportion of the respondents were familiar with hospital as place to donate blood and mobile bank was unknown as few respondents were able to know that blood could be donated in the mobile bank.

Table 4.1.5: knowledge about Benefit of Voluntary Blood Donation

Benefit of VBD	Frequency	Percentage %
Help in emergency	270	85.7
Blood purification	5	1.6
Self-satisfaction	12	3.8
Good health	21	6.7
Do not know	7	2.2
Total	315	100.0

On the importance of voluntary blood donation, Table 4.1.5 shows that majority of respondents opined that among several benefits of voluntary blood donation, the most important was to donate during emergency situation. This could be the reason why youths in Gombe resort to donate blood only when disaster occurred because of the meaning attach to the emergency.

Table 4.1.6: Social Benefits of Voluntary Blood Donation

Social benefit	Frequency	Percentage%
Service to community	177	56.2
Self-esteem	22	7.0
Integrate family	54	17.1
sense of belonging to recipient	32	10.2
Do not know	28	8.9
Others	2	.6
Total	315	100.0

Table 4.1.6 shows that high number of respondents displayed good knowledge of the benefits of voluntary blood donation. As more than half admitted that it served not

only a function of giving back to the community but also help to strengthen the social bond that bind the community as one thereby promoting social solidarity and peaceful co-existence among its members.

Table 4.1.7: Problems of Non-Voluntary Blood Donation

Problems of Paid Donation	Frequency	Percentage%
Concern about purity	66	21.0
Urgent need for cash at expense of health	39	12.4
Discourages altruism	64	20.3
Exploitation of poor people	68	21.6
Driven up the cost of blood	21	6.7
Do not know	57	18.0
Total	315	100.0

Table 4.1.7 indicate that roughly more that 80% of the respondents knew one or more problems associated with paid donation as against few respondents 18.0% that pleaded ignorance about problem of non-voluntary donation. It indicated that majority of the participants were not in support of any form of commercial donation. The implication it means that people have answer the clarion calls championed by WHO, NBTS and FMOH that all blood and blood product should source from non-remunerated donors because they are the safest and the prevalence of blood bone infectious diseases such HIV and Hepatitis B&C were lowest among this category of donors.

Table 4.1.8: Perception on Getting Infections during Blood Donation

Infection	Frequency	Percentage %
Yes	146	38.9
No	229	61.1
Total	375	100.0

The opinion survey as revealed in table 4.1.8 more than have of the respondents 61.1% were of the view that infection could not be contacted during blood donation. Whereas significant proportion of the respondents 38.9% believes that infections could easily be transmitted during blood donation. This implies that in every 5 youths 2 among believes that infection can be transmitted when donating blood. This might probably prevent them from donating blood.

Table 4.1.9: Respondents' Sources of Information on Infections

Sources	Frequency	Percentage %
Seen	43	29.5
Heard	66	45.2
Read	34	23.3
Others	3	2.0
Total	146	100.0

In connection to respondents who claimed infection could be contracted, were asked to give sources of information. Table 4.1.9 points out that majority of the respondents affirmed they heard the information largely from friends. Meaning that the role of peer groups in disseminating information cannot be negated because it has the capacity of misleading it members through propaganda or rumor and this can have adverse effect on young people that have the intension to donate blood.

4.1.10 Possible Infections by Respondents that Belief Infection could be contacted During Blood Donation

When the aforementioned respondents who said yes for seen, heard or read, were asked to list the possible infections that could be contracted. Nearly all respondents complained about getting infections like HIV/AIDs, hepatitis B &C and other blood bond related diseases. This explains the

extent to which *hearsay* deters potential donors to voluntarily donate blood.

4.2 Motivation for Blood Donation

This section deals with the practical aspect of voluntary blood donation. In doing so, attempt have been made to inquire the donation status of the participants in the study, as to whether they ever donated blood, the nature of the donation, intension to donate again, motivations for the donation and the reasons for not donating blood voluntarily.

Figure 4.2.1: Respondents' Blood Donation Status

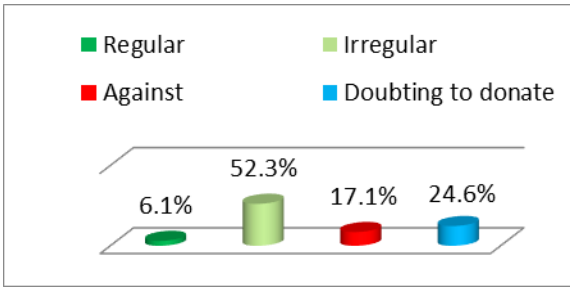


Figure 4.2.1 presents respondents' donation status; the illustration indicates that more than half of the respondents had donated blood out of which only 6.1% were the regular blood donors and the remaining 52.3% were irregular. As for the non-donors, the figure indicates that more than 40% of the respondents had never donated blood, out of which majority 24.6% were in doubt as to whether to donate or not and the remaining17. 1% was against blood donation. By implication the practice of voluntary blood donation was very poor in the study area. Invariably people prefer to donate blood to whom they personally knew (i.e. a member of family or friend) than to donate to the unknown person.

Figure 4.2.2 Respondents' Intension to Donate Blood Again

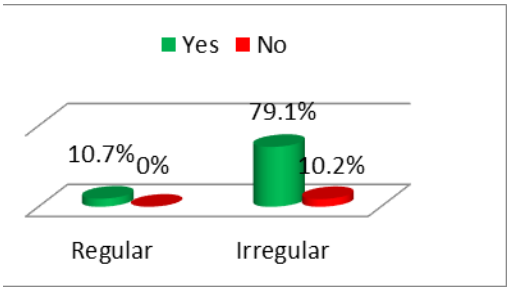
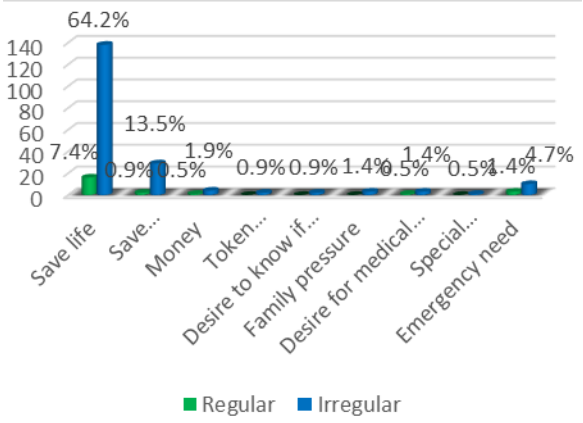


Figure 4.2.2 shows that all the regular donors (10.7%) demonstrated commitment to donate blood again and nearly 80% of irregular donors also indicated interest to donate blood if the need arose and 10.2% of the irregular donors declined. This indicates that people who donated blood in the past are more likely to donate blood again or to become regular donors than non-donors because, they were able to overcome almost all the fear and anxiety surrounding the blood donation.

Figure 4.2.3: Distribution of Respondents Based on Motivation for Blood Donation



Motivation for voluntary blood donation was considered to be an important determinant of one's decision to donate blood. Figure 4.5.3 demonstrated that the reasons given by both regular and irregular donors were to save life as displayed in the graphic chart. While some significant number of irregular donors donated blood in order to save family or relatives. By

implication, the illustration points out that the reasons that lured respondents to donate blood were largely connected to urgent need to save the life of someone or family member.

Figure 4.2.4: Reasons for Not Donating Blood by the Respondents

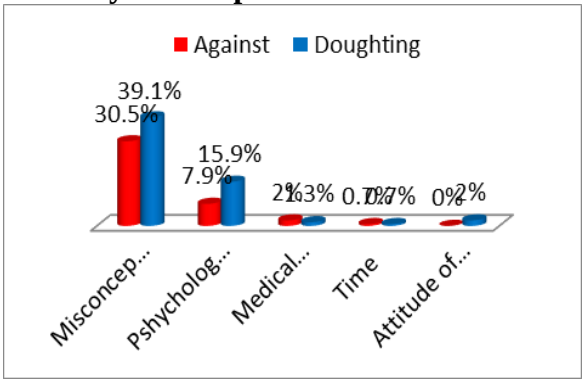


Figure 4.2.4 (reasons for not donating blood by the respondents) depicts that respondents that never donated blood were asked the reasons for not donating. Large proportion of the respondents that were against the blood donation opined that, the donated blood would be sold or used for rituals; whereas those that doubted argued that they did not have enough blood or did not have enough information on the process and high number of respondents indicated fear for bruising, hospital, painful procedure. In general, reasons given by the former were largely connected to the issues that revolved around misconception while the later were related to phobia which were purely psychological reasons other than the medical ones.

Findings

1. Finding indicates that there was a high level of knowledge of voluntary blood donation among youths.
2. It was also established that the extent to which knowledge of voluntary blood donation translates into practice remains lower among youths.
3. Public sensitization campaign as a means of educating youth and place of donation like mobile bank were unknown to the youth.

Conclusion

The study concludes that majority of the youth had good knowledge toward voluntary blood donation but the extent to which was converted into practice remained poor. Base on the findings, good knowledge is a necessary condition but not sufficient to predict blood donation behavior. In view of this research, most of the causative factors for shortage of voluntary blood donors were connected to the meaning people attached to the concept of voluntary blood donation itself and lack of trust of the donor collection agencies.

Recommendations

1. The blood donation awareness campaign should be extended beyond world blood donor day, especially in public place such as market squares and worship centers. So as to convert the knowledge into actual blood donation.
2. The use of media should be strengthened so that expert can be on air to educate the general public on the health and social benefit of voluntary blood donation.

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