

Original Research Article

Sustainable Blood Donation: An Analysis of Motives, Impediments and Way Forward in Sokoto State, Nigeria

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Abstract

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Around 234 million major operations are performed worldwide every year, 63 million traumatic injury surgeries, 31 million cancer treatments, and 10 million pregnancy-based problems occur and need blood transfusions. Thus there is need for voluntary blood donation, which is the recognized way of getting blood safely and accessibly. Sokoto state is among the states that grapple with low voluntary blood donation availability due to many factors. The objective of this paper is to determine the motives, impediments, and solutions to obtain 100% voluntary blood donation in Sokoto State, Nigeria. 40 voluntary blood donors, and 100 key informants drawn from community health and medical laboratory workers were recruited in Sokoto state using convenience sampling, in a cross-sectional descriptive fashion. The gathered data was analyzed using thematic content analysis, frequency and percentage were calculated. The result of interview with regular, voluntary donor individuals were revealed, all the respondents were Muslims, males, Hausa/ Fulani, and Secondary school leavers. The age was 18 and above. 90% of the respondents submitted that they donate blood for the sake of God Almighty and 10% revealed that they do it to help others. These are the motives and have religious undertones. The key informants were interviewed. Therein, the forms of blood donations revealed were: replacement (80%), paid (40%), and voluntary (20%). On question "what motivates people to donate blood?". They admitted: awareness/ education (50%), religious/leaders (20%), curiosity to help the health of donors (10%), and curiosity to help others (10%). Key informants were asked viz, "what are impediments to voluntary blood donation?" They revealed lack of awareness (60%), and fear (40%). There were problems in the laboratory where donations are carried out. They include lack of light (40%), and lack of storage facilities (20%). Conclusively, this study revealed that, lack of awareness, fear and lack of light or storage equipments are the impediments to sustainable voluntary blood donation in Sokoto State, Nigeria. The way forward are to create awareness, more attention should be awarded to healthcare provisions especially in rural dwellings.

Keywords: Blood donation, Catastrophic health expenditure, Sokoto state, Replacement donors, Voluntary blood donation

INTRODUCTION

Blood is vital to our body in such that no human body can function without it. Blood needs should be fulfilled at the needed time so as to prevent medical complications, or even death. In the same vein, blood is perishable, thus required secured storage and treatment. Transfusion is needed during severe accidents, surgery, cancer, pregnancy complications and many more (Al-Idrees, 2008; World Health Organization, 2010). Every country battle with the challenges to collect sufficient blood from accessible, safe donors to satisfy the national requirements. The involuntary non-paid donation of blood is being recognized as the prerequisite for safety and sustainability of blood supplies, because relying on replacement by family or friend donors or paid-donors are hard and unsafe (can lead to catastrophic health expenditures) to meet the demand. In fact, paid-donors pose a serious threat to the health and safety of the recipients as well as the donors (WHO, 2010). Some countries have well-entrenched systems to furnish safe and accessible blood donation and transfusion, whereas, others are still grappling with the mercy of replacement from friends or relative donors, and paid-donors (WHO, 2010). Sokoto State is among those that suffer same.

Communication is one of the things that are vital to voluntary blood donation. People need to be adequately and properly informed on the benefits, systems, locations, and time of blood donation, as well as consequences of shunning the practice on public and individual health (WHO, 2012). Lack of will and commitment, government and health workers is another hitch to sustainable voluntary blood donation. Government should provide effective policies and implementations. Particularly, in Nigeria the National Blood Transfusion Service (NBTS) suffers paucity of legislative backing (Eharbor *et al.*, 2012; WHO, 2012).

Diverse health professionals should imbibe advocacy and calling of the public on the need to donate blood, and they have to resolve the negative myths on blood donation or transfusion to achieve sustainable blood donation in the State. Sokoto is a religious state ,to achieve sustainable development in terms of voluntary blood donation, community or religious leaders are the most effective and cheap machinery to employ; parable to what is been done in the intervention to curtail noncompliance to polio immunization in the state (Eharbor *et al.*, 2012; WHO, 2012; Sarkingobir *et al.*, 2018).

At individual level, many reasons are cited as the motives, impediments and solutions to voluntary blood donation. Motives among youths in Sokoto includes: religion, peers, crisis/emergency, TV/radio among others.

Impediments are many, such as fear, illness, lack of awareness among others (Mulcahy *et al.*, 2016; Sarkingobir and Abbas, 2017). This paper determined the forms of blood donations, motives, impediments, and way forward to voluntary blood donation in Sokoto State, Nigeria.

MATERIALS AND METHODS

Study area

This study was carried out in Sokoto state, Nigeria. Sokoto is one of the 36 states of the Federation of Nigeria, with a total population of 4,427,760 according to the report of 2006 census. The state is located in the Northwest part of the country forming boarders with Kebbi, Zamfara, and Niger republic. Sultan, the Muslim spiritual leader in Nigeria and some closely related African states resides in Sokoto state, as the seat of the caliphate. In Sokoto State there is one University Teaching Hospital owned by Usmanu Danfodiyo University (UDUTH), one Federal Neuropsychiatric, one Specialist Hospital, one Orthopaedic Hospital, two Women and Children Hospitals and several Primary Health Cares (PHCs) (Sarkingobir and Abbas, 2017).

Study design

The design utilized in this work was descriptive technique.

Sample size and sampling techniques

40 voluntary blood donors were sampled using purposeful sampling and interviewed with structured questionnaire as instrument for data collection. Also, 100 key informants who worked at various health facilities in the state were interviewed using questionnaire, whereas, some of them through telephone interview. These key informants were drawn from community health, and medical laboratory departments.

Data analysis

The gathered data was analyzed using thematic content analysis method and frequency and percentage descriptive parameters were calculated using Microsoft excel.

Table 1. Result of interview with Voluntary blood donor respondents in Sokoto State, Nigeria

Item		Frequency	Percentage
Religion	Islam	40	100
Sex	Male	40	100
Age	18-30years	16	40
	31years and above	24	60
Educational level	Secondary school certificate	40	100
Why do you donate blood ?	Because of God	36	90
	To help others	4	10

RESULTS AND DISCUSSIONS

Blood is versatile and unavoidable fluid which has no substitute in the human body and is only sourced from humans. We can only infused blood from one biological system to the other through transfusion, which is required in many situations. Failure to secure the blood can lead to morbidity or mortality. Thus blood donation save lives, and that can only be properly furnished to the public from voluntary blood donors (Goette and Stutze, 2008; Roopadevi *et al.*, 2017). Nigeria is facing the low turnout of blood services because of several factors, leading to many avoidable mortalities and morbidities (Karim *et al.*, 2012; Kaoje *et al.*, 2018). The result for this study was shown by tables 1, and 2. In table 1, the result of interview with regular, voluntary donor individuals were shown .All the respondents were Muslims, males, Hausa/Fulani, and Secondary school leavers. The age was 18 and above. 90% of the respondents submitted that they donate blood for the sake of God Almighty and 10% revealed that they do it to help others. These are the motives and have religious undertones .This is one of the reasons stated by findings of Al-Rashdi *et al.* (2018). Religious identity is one of the factors potential to variation in the morbidity or mortality among people. That is why public health and medical experts examined the influence of religion on health (Chatters *et al.*, 1994). The importance of passing health interventions via religious platform or leaders has already been acknowledged (Ovens and Sami, 2015; Pandela and Curlin, 2012). Thus, it is pertinent to use religious-based organizations, leaders, and injunctions to motivate people to voluntary blood donation, and past observations and theoretical aspects augment that.

In table 2, the result of key informant interview with professionals was revealed. The key informants demography shows, they were Muslims, Hausa/Fulani, male, 60% medical laboratory technicians, 20% medical laboratory scientists, and 20% community health officers.

It is usual that the urban locations have the better healthcare facilities than the rural counterparts. The sources of blood donations revealed were: replacement (80%), paid (40%), and voluntary (20%). Thus, the voluntary donation is lowest compared to the two others (replacement and paid). The "replacement-donors and paid-donors" were not recommended by WHO and are the impediments to achievement of sustainable blood donation anywhere, let alone Sokoto state (a place reported with poverty indices). There are needs to control these two things. Also, the two (replacement and paid) help in throwing people into catastrophic health expenditure, because many have to sell their farms, plots, other properties or take lofty debts to fulfil health expenditure demands (WHO, 2000; Karim *et al.*, 2012; Aregbeshola and Khan, 2017). On question "what motivates people to donate blood?". The answers they gave were: awareness/education (50%), reliable/leaders (20%), curiosity to help the health of donors (10%), and curiosity to help others (10%). Therein, the predominant motives include: awareness/education and religious/leaders. Thus, there is need to create awareness. Many people could succumb if they become aware. People should be educated using many platforms on benefits of voluntary blood donation. Additionally, religion/community leaders are effective, have demonstrated efficiency in curbing polio immunization noncompliance (November, 2014). That chance should be utilized.

On the question "what are impediments to voluntary blood donation?". The submissions were revealed. They were lack of awareness (60%), and fear (40%). These are reported by others (Al-Asadi and Al-yassen, 2018; Solanki and Mali, 2018). Sarkingobir and Sambo (2017) found them among youths in the past in Sokoto study. There were problems in the laboratory where donations are been done. They include lack of light (40%), lack of storage facilities (20%). The government should take measures to relieve those. Whereas, 40% who worked in urban locations said they faced no challenge (problem) in

Table 2. Result of interview with Key Informants in Sokoto State, Nigeria

Item		Frequency	Percentage
Sex	Male	100	100
Tribe	Hausa/Fulani	100	100
Religion	Islam	100	100
Level of education	Diploma in medical laboratory science	60	60
	Bachelor of medical laboratory science	20	20
	Community health officer	20	20
Location of place of work	Rural	60	60
	Urban	40	40
Predominant form of blood donation	Voluntary	20	20
	Paid	40	40
	Replacement	80	80
	Awareness/education	100	50
What motivates people to donate blood?	Religion	40	20
	Curiosity to help others	20	10
	To help the health of the donor	20	10
	Lack of awareness	60	60
What are impediments to blood donation?	Fear	40	40
	Lack of storage facilities (blood bank)	20	20
	Lack of electricity	40	40
	No challenges	40	40
Problems in the laboratory where donation or transfusion take place			

blood donation or transfusion laboratories. Usually, the healthcare in rural areas is more devastating compared to that of the urban areas. Firstly, an effective policy backed by law should be created. Then, health experts and government should partner to use health education or advocacy to create awareness. Therein, religious or community leaders or pathways are the best. Faith-groups are means of accessing diverse communities and ensuring that their needs are met especially those related to health (November, 2014). In fact, religion is used as public health intervention (Jabbar and Fouah, 2014). Moreover, the government should pay much attention on improving healthcare facility equipments especially in rural settings.

CONCLUSION

This study revealed that, lack of awareness, and lack of light or storage equipments are the impediments to

sustainable voluntary blood donation in Sokoto state, Nigeria. To overhaul the situation, awareness should be created effectively, more attention should be awarded to healthcare facilities provision especially in rural dwellings.

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