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PERCEPTION AND ATTITUDE OF UNIVERSITY STUDENTS TOWARDS BLOOD DONATION AND TRANSFUSION IN THE ATTAINMENT OF MILLENNIUM DEVELOPMENT GOALS

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ABSTRACT

This study examined the perception and attitude of university students towards blood donation and transfusion in the attainment of Millennium Development Goals (MDGs). 390 participants who were university students of the Lagos State University, Ojo, formed the sample for this study. A validated questionnaire (r=0.92) was used for data collection. Data analyses were carried out using percentages for the demographic data and chi-square statistical tool for testing the hypotheses. Findings revealed that university students are aware of blood donation and transfusion and also have positive attitude towards them. Further revelation indicated that blood donation and transfusion would help in the attainment of the three health related MDGs. However, it was concluded that for a good physical and emotional health for the population studied, the maternal and child health programme should integrate blood donation services in the higher institutions.

Keywords: Blood donation, Blood transfusion, Millennium Development Goals (MDGs), Mortality rate.

INTRODUCTION

Blood is important to the overall wellbeing of individuals. According to Koster and Hassall (2011) the supply of blood for accident victims and those other population that may need blood in sub-saharanAfrica is insufficient. The responseofpeople to blood donation especially in Nigeria is fairly satisfactory as reported by Okpara (2008). However, more positive steps need to be taken to educate the populace about blood donation and transfusion.

Everyone, regardless of age, gender and ethnicity requires blood to survive. The availability of blood depends on donations made by individuals (Goldman, Fournier, Cameron, Choik and Steed, 2007). However, there is always fear associated with donation of blood and the most common reason given for non-donation was religious belief (Okpara, 2008).

Blood donation occurs when a person voluntarily has blood drawn and used for transfusion. Donation may be of whole blood or of specific components directly. Various authors (Cohen, 2004; Schmunis, 2005 & Wiltbank, Giordano, Kamel, Tomasulo & Cluster, 2008) assert that in the developed world, most blood donors are unpaid volunteers who donate blood for a community supply. In poorer counties, established supplies are limited and donors usually give blood when family members are in need of transfusion. However, many donors donate as an act of charity, some are paid and the latter are often referred to as professional donors. They donate blood as sources of livelihood and they loiter around general and teaching hospitals.

There are basically four types of donations and these are allogeneic (donation of blood for storage in blood bank which would be transfused to an unknown person) directed donation (blood donated for a particular individual) replacement donation (where a family member or relatives donate blood to replace the stored used in transfusion) and antilogous (donation of blood by a person who will use the blood at a later date). (Schmunis, 2005).

According to Rilley, Schwei & McCollough (2007); Atsma & de Vegt (2011) and Manco, Melania, & Fernadwz-Real (2012) there are certain benefits of blood donations for the donors; it ensures free health screening, reduces the risk of heart diseases, it gives an elated inner feeling of saving

lives, there is decrease in blood cells count in the body which helps the bone marrow to produce new red blood cells in order to replenish the loss and it helps males to reduce iron on regular basis which invariably helps to reduce the chances of heart attack to one third. In essence,the act of donating blood is not only beneficial to the recipients but has a lot of benefits for the donors too.

Egbewunmi (2012) asserts that Nigeria's annual blood need was approximately 1.5 million blood units per annum and the states centres were onlyable to collect 36, 211 units of blood which amounted to about five percent of the nation's blood requirement. He further opines that there are widespread myths and misconceptions about blood donation as well as poor awareness of the need for voluntary blood donation and these are some of the challenges militating against increasing the pool of voluntary blood non-remunerated blood donors.

The Melbourne Declaration (2009) recognizes that safe blood and blood products and their transfusion are critical aspects of health care and public health that saves millions of lives and improves the health and quality of life of many individuals. It also acknowledges the realization of the health related MDGS to reduce child mortality (Goal 4) to improve maternal health (Goal 5) and to combat HIV/AIDS, malaria and other diseases (Goal 6) which are dependent on universal access to safe blood transfusion (WHO Report, 2010).

The Millennium Development Goals (MDGs) are eight internal development goals that were officially established following the Millennium Summit of the United Nations in 2000. Three of the eight goals are health related that is reducing mortality rate, improving maternal health combating HIV/AIDS, malaria and other diseases. For these goals to be achieved certain measures have to be taken, there could be medical cases requiring transfusion of blood and if there are no blood banks, this may not be achievable (Cohen, 2004).

In addition to this, maternal health is also ofparamount importance if child mortality is to reduce. On the basis of this, blood donation is essential to the reduction in child morality and improvement in maternal health.

The MDGs are interdependent and are all influenced by health. For instance, better health enables children to learn and adults to earn. Reducing poverty, hunger and environmental degradation not only positively influences health but also depends on better health (WHO, 2010).

Zehra (2010) in a study of level of knowledge of university pupils towards safe blood, blood donation and transfusion found out that there were misconceptionsabout blood donation among the group studied. The implication of this study is that undergraduates in various tertiary institutions still lack basic understanding of the importance of volunteer blood donation.

Youths between the ages of 16 and 28 form the bulk of university undergraduates and are usually full oflife for this reason this population should beencouraged to donate blood for healthy living. Therefore, the purpose of this study is to assess the knowledge and attitudes of undergraduates' students towardsblood donation and transfusion in the attainment of MDGS.

Methodology

The participants for the study were 390 Lagos State University (LASU) students. 205 (53%) of the participants were male students while 185 (47%) participants were female students. Further breakdown revealed that 125 (32%)were 100 level, 136 (35%) 200 level, 69 (18%) were 300 level students while the rest 60 (115%) were 400 level students. The distribution of participants by Facultyrevealed that 81 (21%) were from the Faculty ofArts, 94 (24%), 54 (14%) were from Science, 37 (9%) were from Management Sciences, 65 (17%) were from Law, 44 (11%) were from Social Sciences while the remaining 15 (4%) were from the School of Transport.

The researchers developed a structured questionnaire which was tagged "Questionnaire on Blood Donation and Transfusion in the Attainment of MillenniumDevelopment Goals." The questionnaire was given out to two professionalcolleagues for content validity. For construct validity, the questionnaire was pilot tested using twenty students of the Adeniran Ogunsanya College of Education,Ijanikin. The validated instrument was subjected to test retest method of

reliabilityand the Pearson Moment Correlation Coefficient (PPMC) analysis of the data gave r=0.92. Section A of the instrument dealt with demographic data whichincluded gender, level of study and faculty while section B followed the Likertscale and sought data on the perception of students towards blood donation and development of positive attitude towards blood donation and transfusion in theattainment of MDGs. Questionnaires were distributed to students across all facultiesusing the purposive sampling technique. Responses were sought from participants on their perception towards blood donation, their attitude towards blood transfusionand their knowledge of blood donation and transfusion in the attainment of Millennium Development Goals (MDGs). The data collection procedure lasted for two weeks.

The data collected were coded and analyzed using frequency and percentage distributions for the demographic data. Variables tested in the study includedperception of and attitudes towards blood donation and the importance of blood donation and transfusion in the attainment of MDGs. All variables were tested using the chi-square statistical tool at 0.05 level of significance.

Results

Results of the data and discussion of findings are presented below:

Table 1: Chi-square analysis on perception of blood donation and transfusion

Responses	Freq	%	df	X^2
Strongly Agree	3061	29.4	27	46.55*
Agree	3379	32.5		
Disagree	2379	22.9		
Strongly Disagree	1587	15.3		

*p< 0.05

Table 1 above was a X^2 test performed to determine if university students would have no significant perception towards blood donation and transfusion. The table revealed that the frequencies of responses on Strongly Agree, Agree, Disagree and Strongly Disagree were 3061 (29.4%), 3379 (32.5%), 2379 (22.9%) and 1587 (15.3%) respectively. Subjecting the data to X^2 analysis reveals a significance of 46.55, df 27 at 0.05 level of significance. Therefore, the result indicated that university students have significant perception towards blood donation and transfusion.

Table 2: Chi-square analysis on attitude towards blood donation and transfusion

Responses	Freq	%	df	X2
Strongly Agree	780	18.9	9	12.21*
Agree	1238	30.0		
Disagree	1362	33.0		
Strongly Disagree	748	18.1		

*p< 0.05

Table 2 is on the X2 analysis of respondents on attitude of university students towards blood donation and transfusion. The table revealed the frequency of responses on StronglyAgree 780 (18.9%), Agree 1238 (30.0%), Disagree 1362(33.0%) and Strongly Disagree 748 (18.1%). The data was further subjected to X^2 analysis and the result indicated X2 value of 12.21 with the df of 9 at 0.05 level of significance. This indicated that the university students have significant attitude towards blood donation. This implies that the students have no misgiving towardsblood donation and transfusion.

Table 3: Chi-square analysis on blood donation and transfusion and attainment of millennium development goals

Responses	Freq	%	df	X2
Strongly Agree	696	18.3	9	97.07*
Agree	1189	31.3		
Disagree	1122	29.5		
Strongly Disagree	792	20.8		

*p< 0.05

Results from the table 3 above indicated that the frequency of responses on Strongly Agree, Agree, Disagree and Strongly Disagree were 696 (18.3%), 1189 (31.3%), 1122 (29.5%), and 792 (20.8%) respectively for the 390 respondents. The table revealed a significant X' value of 97.01 at 9° degree of freedom and 0.05 level of significance. Blood donation and transfusion helps in reducing and mortality rates as indicated in the MDGs. Therefore the result implies that blood donation and transfusion would help in the attainment of millennium development goal amongthe population studied. Discussion

The results of the data presented showed that university students are quite aware of the importance of blood donation and transfusion. They also exhibit a good knowledge of the process of donating blood and would readily donate if a friend is in distress. According to Cohen, (2004) in developing counties, established supplies of blood are limited and donors usually giveblood when family members are in need of transfusion. Some students expressed fear in the case of transfusion and the major reason given was religious bias. University students also indicated their willingness to donate blood for a fee but this attitude could be attributed to the rate ofpoverty in the country.

These attitudes could have a lot of emotional problems especially for university students whose parents' financial backgrounds have not prepared them for the challenges of higher education.

In the personal interview conducted among the population sampled, the outcome shows that students have a positive attitude towards blood donation and transfusion. Students indicated their readiness to donate to blood bank and even relished the fact that lives are being saved by donating blood but are not aware of any blood bank within their immediate neighborhood. They expressed concern over the various myths and misconceptions but would still go ahead to donate. The finding of this study is corroborated by Egbewunmi (2012) who asserts that Nigeria's annual blood need was approximately 1.5 million blood units per annum and the blood centres were only able to collect 36, 211 units of blood which amounted to about five percent of the nation's blood requirement. He further opines that there are widespread myths and misconceptions about blood donation as well as poor awareness of the need for voluntary blood donation. This poses a great challenge to the increase in the pool of voluntary blood non-remunerated blood donors.

This finding could be attributed to the educational background of the participants and their environment. A similar study by Zehra (2010) found that there were misconceptions about blood donation among the group studied. The implication of this study is that undergraduates in various tertiary institutions still back basic understanding about the importance of volunteer blood donation.

Furthermore, this study also found that blood donation and transfusion would help in the attainment of MDGs. The implication of this finding is that there would be enough blood in the blood bank to cater for the three health related MDGs that is reduction in child mortality, improvement in maternal health and combat of HIV/ AIDS, malaria and other diseases. According to WHO Report (2010), the MDGs are interdependent and are all influenced by health. Health also influences all the MDGs and for instance, better health enables children to learn and adults to earn. Reducing poverty, hunger and environmental degradation not only positivelyinfluences health but also depends on better health.

Implications

The findings derived from this study have a number of implications for students in tertiary institutions since donation of blood is essential as it is not known who the next victim of blood transfusion would be. The findings of this study also have implications for health counselors and health workers. These findings have important implication for training of health counselors who are well positioned on the issue of blood donation to be stationed at various tertiary institutions' health centres where students can walk into to donate non-remunerated blood.

The health workers must ensure that there is a follow-up service for these students in order to build their confidence on the issues of blood donation and transfusion.

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