University Students in Nigeria: Attitude Towards Marriage in the Face of Haemoglobin Genotype Incompatibilty

Type of Article: Original

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ABSTRACT

BACKGROUND

Sickle cell disease is the commonest genetic disease world over and predominantly affects Africans and the generality of the black race. The issue of genotype incompatibility among prospective couples and decisions on marriage under such circumstances can have significant implications on the control of this dreaded disease in any country. The purpose of this study was to find out the awareness of students of Benue State University, Makurdi of their haemoglobin genotype status, and their attitude towards marriage in the face of genotype incompatibility.

METHODS

This was cross sectional study involving 300 students of Benue State University, Makurdi; selected by a multistage stratified sampling technique, using self administered structured questionnaire. The questionnaire tapped relevant information on the awareness of students of their haemoglobin genotype status and what would be their decision on marriage in the face of genotype incompatibility.

RESULTS

One hundred and fourteen students (38%) admitted that they were engaged in an ongoing relationship serious enough to end in marriage. Of this, approximately half (50.8%) knew their haemoglobin genotype status, while only 41.2% knew their partners' haemoglobin genotype. As much as 47% of these students who are involved in a relationship indicated their intention to proceed with marriage to their partners, genotype incompatibility notwithstanding.

CONCLUSION

Many university students do not view sickle cell anaemia and genotype incompatibility as issues to be considered in making marital decisions and are therefore willing to proceed with marriage in such circumstances. The study recommends that counsellors should intensify awareness and campaign on premarital genetic counselling among Nigerian undergraduates.

Keywords: *Marriage Decision; University Students; Hb Genotype; Incompatibility.*

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INTRODUCTION

Sickle cell anaemia, the commonest genetic disease worldwide, is a major disorder of the human blood system that afflicts a great number of people in this part of the world and subjecting them to unspeakable bouts of burden as well as torture. Available statistics revealed that Nigeria specifically harbours a large number of sufferers of this dreaded disease [1-5]. For example, it is estimated that of the 500 million sufferers of sickle cell disease worldwide, Nigerians account for between 25 and 30 million[1]. In the absence of effective curative therapy, the issue of prevention and control of sickle cell disease will continue to attract the attention of scholars and stakeholders. Premarital genetic counselling as a control strategy for sickle cell disease involves giving at "risk persons" accurate, full and unbiased

information necessary to assist them in reaching decisions on any course of action regarding marriage [3]. Such marital decisions and the subsequent courses of action are extremely important in the control of sickle cell disease, especially among intending couples who are involved in various forms of relationship/ courtship that are likely to culminate in matrimonial wedlock. Nigerians are known to consider a myriad of factors before proceeding with marriage, ranging from beauty, to level of education, socioeconomic status, love, ethnicity, religion and parental choice. The influence of genetic factors seems to be given little or no consideration.

This study sets out to determine the awareness of undergraduates of Benue State University, Makurdi, of their own haemoglobin genotype status, their partners' status, and what would be their decision on marriage in the face of genotype incompatibility.

MATERIALS AND METHODS

The study was conducted in April 2008 in the metropolis of Makurdi. Single, unmarried students of the Benue State University were enrolled in the study. Approval for the study was obtained from the University Ethical Committee and informed consent was obtained from the respondents. The number of students studied was 300. A multistage sampling method was used to select this sample size from the various departments in the university. The instrument used for the study was a structured pre-tested questionnaire designed to elicit socio-demographic data, as well as the awareness of students of their haemoglobin genotype and that of their partner for those who were involved in an ongoing relationship. For this group of respondents, their decision/attitude towards marriage in the face of genotype incompatibility was also sought. The data was analysed using statistical package for social science (SPSS) for windows. The descriptive statistics were obtained.

RESULTS

Three hundred and twenty (320) students participated in the study. Information from 20 students (6.25%) who completed the questionnaire wrongly was not included in the analysis. Data from 300 students were therefore analysed.

Background characteristics of students:

The age and sex distributions of the study group are shown in Table I. One hundred and eighty students (60%) were male while 120 were female (40%). The overall mean age of the study population was 23.09 ± 3.93 (age range = 16 to 35 years). The modal age bracket was 20 – 24 years. Majority of the students (two hundred and sixty eight, representing 89%) were Christians, while 32 students (11%) were Muslims.

Awareness of haemoglobin genotype and attitude / decision on marriage in the face of genotype incompatibility:

One hundred and fourteen students (38%) admitted that they were engaged in an ongoing relationship serious enough to end in marriage. Of this, approximately half (50.8%) knew their haemoglobin genotype status (table II), while only 41.2% knew their partners' haemoglobin genotype (figure 1). As much as 47% of these students who are involved in a relationship indicated their intention to proceed with marriage to their partners, genotype incompatibility notwithstanding (figure 2).

Table I: Distribution of Respondents by Age and Sex

	GENDER				
Age group (in years)	Male		Female		Total
	No.	(%)	No.	(%)	No.
< 20	31	(17.2)	21	(17.5)	52
20–24	68	(37.7)	85	(70.8)	153
25–30	60	(33.3)	7	(5.8)	67
> 30	21	(11.7)	7	(5.8)	28
Total	180	(60.0)	120	(40.0)	300

Table II: Distribution of respondents on basis of involvement in a relationship and awareness of own genotype.

Awareness/knowledge Of own genotype	whether or not in a relationship Yes (%)	No(%)	Total
Yes	58(50.8)	83(44.6)	141
No	56(49.2)	103(55.4)	159
Total	114(38)	186(62)	300

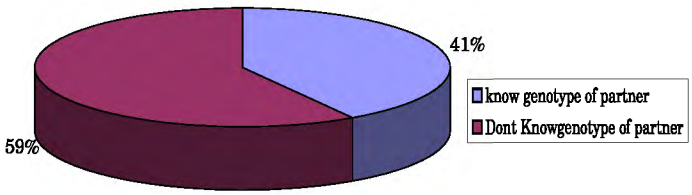

Figure 1: Distribution of respondent's' awareness of partner's genotype

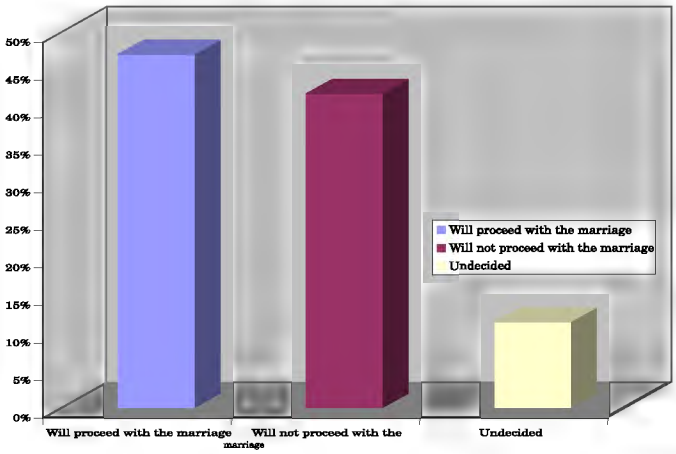

Figure 2: Attitude to Marriage in the face of Genotype Incompatibility

DISCUSSION

Sickle cell anaemia contributes an equivalent of 5% of under-five deaths on the African continent, with more than 9% of such deaths in occurring West Africa [6]. It is also contributes up to 16% of under-five deaths in individual West African countries [6]. Sickle cell anaemia poses serious health concern, especially in a developing country like ours due to the morbidity and mortality associated with the disease and the emotional trauma to parents [7].

If Sickle cell anaemia control programs (especially genetic counselling) must yield positive results, knowledge and awareness of individuals, especially those who have attained the age brackets for marriage about sickle cell disease and their decisions on marriage under circumstances of genotype incompatibility are viewed as vital determinants.

Our study revealed that only 47% of students in relationship knew their haemoglobin genotype while 41% knew the genotype status of their partner. This might possibly be a reflection of the general poor knowledge and awareness of Nigerians towards sickle cell anaemia as documented by various studies conducted among undergraduates in Nigerian universities and elsewhere[8-13]. This is however disturbing and worrisome, given the high prevalence of this condition in Nigeria, one would have expected a better knowledge and awareness of the condition among her residents. On the contrary however, it appears that much about sickle cell anaemia is still shrouded in ignorance, secrecy, mystery and perhaps misguided speculations. Concerning the course of action that will be taken in the face of genotype incompatibility, it is surprising that a relatively high percentage (47%) of those students in premarital relationships indicated that they were ready to proceed with marriage even in the face of genotype incompatibility. Why Nigerians still continue to opt for marriage under such circumstances is rather surprising. This is more so, considering the high prevalence of sickle cell anaemia in our country. Whether this is as a result of the general poor knowledge about the genetic disease, or is as a result of peoples' poor attitude towards sickle cell anaemia and its adverse effects raises fundamental issues worthy of further investigations. However, it seems many other factors receive better attention among Nigerians, as opposed to issues of sickle cell disease and genetic incompatibility. Many individuals emphasize such factors as social status, love, beauty, ethnicity, religion and parental influence. Sometimes, a good family background and the fact that some kind of economic level should be reached for any man who wants to marry are among the variables given principal consideration by intending couples. While these factors need not necessarily be de-emphasized, it should be

noted that as long as the influence of genetic factors and genotype incompatibility receive little consideration when making marital decisions, much cannot be achieved in terms of the control of sickle cell disease in any nation. It is worthy of note that the world health organization (W.H.O,1977) noted that the high rate of new born children dying in Nigeria's remote villages might not be unconnected with the low level of awareness and poor attitude of the Nigerian people about whether or not they are genetically compatible before becoming husband and wife[14]. There is serious danger when people display ignorance in a matter like sickle cell anaemia that clearly affects the homes and health of a nation. Perhaps more dangerous is the current trend of careless and risky marital decisions which Nigerian youths have continued to make under circumstances of genetic incompatibility. The inevitable consequences will be the procreation of children with sickle cell disease and trait. To curb this alarming trend, marriage counsellors are advised to see themselves as duty bound in ensuring that potential marriage couples know their haemoglobin genotype before finally tying the nuptial knots. "Would be "couples should ensure genetic compatibility before proceeding with marriage rites. Our law courts, churches, mosques and marriage registries should be encouraged to ensure that potential couples bring with them blood group and genotype clearance certificates before marriage is allowed to proceed. Unless these measures are immediately put in place, Nigerians may continue to bear children that may not live to see their 21st birthday. The task appears enormous, but it is by no means impossible.

REFERENCES

1. Adeyokunnu AA and Topley E. Sickle cell anaemia: Diagnosis and care in Nigerian health centre. Transactions of the royal society of tropical medicine and hygiene.1977; 71 (65): 416-420.
2. Kaine WN. Morbidity of homozygous sickle cell anaemia in Nigerian children. Journal of tropical paediatrics.1973; 29:104-110.
3. Akinyanju O and Olujohungbe A. How to live with sickle cell disease. Bookbuilders. Editions Africa; 2007:18-19
4. Mabayoje JO. Sickle cell anaemia: A major disease in West Africa. Brit Med J.1956;1:194-6
5. Konotey-Ahulu FID. The sickle cell disease patient. London: Macmillan; 1991.34-40
6. World Health Organization (W.H.O, 2005). Sickle cell anaemia. Executive Board 117th Session Provisional Agenda Item, 4.8 EB 117/34.
7. Oyedeji GA. The effects of sickle cell disease on the families of affected children (letter).Central Afr Med J.1995;41 (10):333-334
8. Alao OO, Araoye M and Ojabo C. Knowledge of sickle cell disease and haemoglobin electrophoresis: A survey of students of a tertiary institution. Nigerian J of medicine.2009; 18(3):326-329.
9. Adeyemo M, Oyenike A, Omidiji B, Oluseun O. Level of awareness of genetic counseling in Lagos, Nigeria. Its advocacy on the inheritance of sickle cell disease. Afr J of Biotechnology. 2007;6(24):2758-2765
10. Moronkola OA, Fadairo RA. University students in Nigeria: knowledge and attitude towards sickle cell disease and genetic counseling before marriage. International quarterly of community health education.2007; 26:85-93
11. Adewuyi JO. Knowledge of and attitudes to sickle cell disease and sickle carrier screening among new graduates of Nigerian tertiary educational institutions. Niger Postgrad Med J. 2000; 7(3):120-3.
12. Boyd JH, Watkins AR, Price CL, Fleming F, DeBaun MR. Inadequate community knowledge about sickle cell disease among African-American women. J Natl Med Assoc. 2005; 97(1):62-7.
13. Akinola TO. University of Ilorin students' awareness of and attitude towards sickle cell anaemia. An MED Thesis. Department of G & C, Unilorin.
14. World Health Organization (W.H.O.1977). Need for eradication of sickle cell anaemia. Unpublished documents WHO/HDP/SCP/78.3.13