

# Awareness of Premarital Genetic Counselling among Youth Corpers in South-West Nigeria.

## [Güney-Batı Nijerya'da Ulusal Gençlik Hizmet Programı Katılımcıları Arasında Evlilik Öncesi Genetik Danışmanlık Farkındalığı]

### SUMMARY

**AIM:** This study aimed at determining the awareness of premarital genetic counselling among youth corpers in Owo, South West Nigeria.

**METHOD:** The study was conducted between January and March, 2009 among youth corpers in Owo. One hundred and sixteen out of the two hundred and fifty youth corpers in the community were selected by simple random sampling. The respondents were interviewed with the aid of self administered questionnaire by the authors. The information obtained from the respondents included their bio-data, awareness of premarital genetic counselling as well as their views on legalizing it. The data obtained was analyzed with SPSS 15.0.1 statistical software version.

**RESULTS:** Most respondents, 105 (90.5%) were aware of premarital genetic counselling. Majority of them were informed by health workers 41 (39%). Most respondents, 95 (81.9%) were in support of legalizing premarital genetic counselling.

**CONCLUSION:** Most respondents were aware of premarital genetic counselling. The media should play a more prominent role in enlightening the populace.

### ÖZET

**AMAÇ:** Bu çalışmada, Güney Nijerya'nın Owo eyaletinde Ulusal Gençlik Hizmet Programı Katılımcıları arasında evlilik öncesi genetik danışmanlık farkındalık düzeyinin belirlenmesi amaçlanmıştır.

**YÖNTEM:** Çalışma, Owo eyaleti Ulusal Gençlik Hizmet Programı Katılımcıları arasında Ocak ve Mart 2009 tarihleri arasında gerçekleştirilmiştir. Yüzonaltı katılımcı, ikiyüz elli Ulusal Gençlik Hizmet Programı Katılımcısı arasından basit tesadüfî örnekleme yöntemi ile seçilmiştir. Katılımcılara yazarlar tarafından hazırlanan anket formu uygulanmıştır. Katılımcılardan kişisel veriler, evlilik öncesi genetik danışmanlık farkındalık ve hayata geçirme düzeyleri il ilgili veriler elde edilmiştir. Veriler SPSS 15.0.1 istatistik yazılımı ile analiz edilmiştir.

**BULGULAR:** Katılımcıların çoğunun evlilik öncesi genetik danışmanlığın farkında olduğu bulunmuştur 105 (%90,5). Bunların çoğunluğu sağlık personeli tarafından bilgilendirilmişlerdir 41 (%39). Katılımcıların çoğu evlilik öncesi genetik danışmanlığın yasallaştırılmasına destek vermektedir 95 (%81,9).

**SONUÇ:** Katılımcıların çoğunun evlilik öncesi genetik danışmanlığın farkında olduğu ve medyanın halkı aydınlatmada bir daha belirgin bir rol oynaması gerektiği saptanmıştır.

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**Key Words:** Premarital Genetic Counselling, Awareness, Youth Corpers, Nigeria.

**Anahtar Kelimeler:** Evlilik Öncesi Genetik Danışmanlık, Farkındalık, Ulusal Gençlik Hizmet Programı Katılımcıları, Nijerya.

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### INTRODUCTION

Genetic counselling is the process by which patients or relatives at risk of an inherited disorder are advised on the consequences and nature of the disorder, the probability of developing or transmitting it and options open to them in management and family planning in order to prevent or ameliorate it. This complex process can be seen from diagnostic and actual estimation of the risk as well as supportive aspects. The goal of genetic counselling is not only risk assessment but also to explain the cause and inheritance of a disorder as well as the availability of treatment. Premarital counselling have played an important role in the management of many genetic

disorders (1). It is one of the most important strategies for prevention of congenital anomalies, medical and psychosocial marital problems (2). Genetics has an impact on health of individuals, their offspring and future generations (3). A genetic disease even when well managed constitute a huge burden to the family of the patient (4). Premarital genetic counselling is an important tool in the detection of genetic disorders and in the reduction of their incidence among offspring (3). Premarital counselling is one of the important measures which can help reduce the incidence of genetic diseases most especially in cases of old paternal and maternal age (5-8). Premarital counselling provides an opportunity to intervene according to the identified

risks (9). The intervention includes treatment of diseases such as infections, modification of chronic disease medication to decrease teratogenic risks, advise regarding contraception and genetic counselling (9). The World Health Organization has recommended several measures for the prevention of genetic diseases such as health education, screening to identify individuals or couples at risk (9). It is important to take cognisance of the needs of each culture and health education must be sensitive to ethical, legal and cultural issues (10-11). Millions of children are born with congenital disorders every year, this results in many problems in the family and society (12). Having a healthy baby is a major wish of each couple especially for those who have experienced mental or physically retarded child (13).

The National youth service programme which is a one year programme commenced in Nigeria in 1973. Graduates are usually posted to different states apart from their state of origin unless there are cogent reasons for posting them to their state of origin. There are thirty six states in Nigeria. The National youth service programme is compulsory and the participants are referred to as youth corpsers. In view of the importance of genetic counselling in preventing genetic disorders, this study was designed to determine the awareness of premarital genetic counselling among youth corpsers in Owo, South West Nigeria.

## MATERIAL AND METHOD

This study was conducted between January and March, 2009. One hundred and sixteen youth corpsers out of two hundred and fifty serving in Owo at the time of this study were selected by simple random sampling and interviewed by the authors with the aid of self administered questionnaire. The interview was conducted at the zonal secretariat of National youth service scheme in Owo during the weekly community development programme. Informed consent was obtained from each of the respondent. The information obtained from the respondents included their bio-data, awareness of premarital genetic counselling, their views on legalizing it as well as involvement of religious leaders in it. The information obtained with the aid of the study instrument (questionnaire) was collated and analyzed with the aid of SPSS 15.0.1 statistical software version. Relevant policy implications were drawn from the ensuing findings.

## RESULTS

One hundred and sixteen respondents participated in this study. The ages of the respondents ranged between 20 and 30 years. The mean age was  $26 \pm 2.5$ . There were 62 males (53.4%) and 54 females (46.6%). Few respondents, 17 (14.7%) were married while the remaining 99 (85.3%) were single. The respondents comprised of 42 Yorubas (36.2%), 28 Ibos (24.1%), 7 Hausas (6%) while the other ethnic groups accounted for the remaining 39 (33.6%). Most respondents were Christians, 97 (83.6%) and the remaining 19 (16.4%) were Muslims.

Awareness of premarital counselling; most of the respondents, 105 (90.5%) were aware while the remaining 11 (9.5%) were not aware.

As shown in table 1, majority of the respondents, 41 (39%) were informed about premarital genetic counselling by health workers.

**Table 1.** Sources of awareness of premarital genetic counselling

SOURCE	FREQUENCY	PERCENTAGE (%)
Health worker	41	39
Media	24	22.9
Lectures/Seminar	24	22.9
Friends/peers	8	7.6
Books	6	5
Family members	2	1.9
<b>Total</b>	<b>105</b>	<b>100</b>

Views on legalized premarital counselling; most respondents, 95 (81.9%) were of the view that premarital genetic counselling should be legalized while the rest, 21 (18.1%) were of the opinion that it should not be legalized.

Involvement of religious leaders in premarital counselling; majority, 101 (87.1%) were in support of involvement of religious leaders in premarital counselling while the remaining 15 (12.9%) were not in support.

Involvement of family members in premarital counselling. Most respondents, 94 (81%) expressed support for involvement of family members while few, 22 (19%) were not in support.

## DISCUSSION

The age range of the respondents is expected in view of the fact that only graduates that are thirty years and below are allowed to participate in the National Youth Service Programme. Those that are over thirty years of age are usually exempted from the National youth service scheme. It is expected that the three major ethnic groups in Nigeria namely Yoruba, Ibo and Hausa were represented in this study in view of the fact that youth corpsers are usually posted outside their state of origin.

For the successful implementation of any prevention programme, there is need for adequate awareness in the community (14).

The high level of awareness about premarital genetic counselling among the respondents is quite impressive. However their high level of awareness could be related to their relatively high level of education. This finding is however at variance with another Nigerian study by Adeyemo et al in which 30.3% of their respondents were aware of genetic counselling (15). An Egyptian study by Eshra et al also revealed that most of their respondents showed a great lack of knowledge about premarital counselling (1). A study by Sorby et al in Egypt among nursing students revealed a general lack of knowledge regarding basic information about genetic counselling (16). A study conducted by Mitwally et al among secondary technical nurses in Egypt revealed that 46.5% of the study population had an average score in knowledge about premarital counselling (2). However it has been reported that in recent years premarital genetic counselling has gained acceptance (3). The main source of information about premarital genetic counselling among our study population was health workers and this finding is expected in view of the role health workers play in educating the populace. In a study conducted by Eshra et al in Egypt the main source of information about premarital genetic counselling was mass media followed by medical personnel (1).

Most of our respondents were in support of legalizing premarital genetic counselling and this finding is at variance with another study conducted by Alkhaldi et al in Saudi Arabia in which 19% of their respondents supported legalization of premarital counselling (17).

In a study carried out by El-Hazmi in Saudi Arabia, most respondents (86.9%) were of the opinion that pre-marital examination should be mandatory (18). Our respondents were mostly in support of involvement of religious leaders in premarital genetic counselling. This finding is

expected in view of the fact that religious leaders in Nigeria are involved in premarital genetic counselling. Some churches even request for haemoglobin genotype from couples before uniting them in holy matrimony. The practice of the churches introducing sickle cell trait screening and genetic counselling before marriage needs to be encouraged and strengthened so as to reduce the incidence of genetic disorders. The economic and societal burdens of genetic disorders are huge (19), thus prevention of genetic disorders will lead to significant benefits in the health sector (20). The importance of premarital counselling cannot be overemphasized as many nations world wide have come to terms with its usefulness as a public health measure (21).

## CONCLUSION

Most of the respondents were aware of premarital genetic counselling. Health workers were the main source of information about premarital genetic counselling. Majority of the respondents were in support of legalizing premarital genetic counselling and involvement of religious leaders.

## RECOMMENDATIONS

1. There is need to create more awareness about premarital genetic counselling.
2. The mass media should play a more prominent role in creating awareness about premarital genetic counselling.
3. Premarital genetic counselling should be legalized but couples should reserve the right to either accept or reject the advice.

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