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THE HAZARDS OF HIGH PARITY: DO THE WOMEN KNOW? FINDINGS FROM UYO, NIGERIA

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Obstetric risks increase with increasing parity and particularly with grandmultiparity. Knowledge of these risks is important in making fertility decisions. We undertook the study to find out the awareness of these risks among our women and contribute useful information in developing future family planning strategies in our region. This was a questionnaire-based cross-sectional study among antenatal women in two health facilities in Uyo, Nigeria. Results show that 87.5% of women were aware of some risks associated with having many children while 12.5% were not. The most common risks mentioned were poor health of surviving children (56.4%), poor health of the mother (44.8%), death at delivery (20.7%) and excessive bleeding (19.7%). The identification of risks of high parity was significantly related to education (p=0.016) and the age of the respondent (p=0.003). There was however no significant relationship between the identification of risks of high parity and religion (p=0.610) or parity (p=0.638) of respondent. In conclusion, our study shows that that while women in Uyo are aware that there are dangers associated with high parity, they generally have poor knowledge of these dangers. It is important to utilize the antenatal period and women's contact with the health system to provide appropriate information on grandmultiparity in order to help women make informed choices with regards to their fertility.

Keywords: Parity, grandmultiparity, Fertility, fertility desire, contraception, Nigeria

INTRODUCTION

The number of children a woman has or intends to have has been a topical issue in Nigeria for some time now not only because of population considerations but because of its implications for maternal health (NPC and ICF Macro 2009;FRN,1988; Omobude-Idiado and Konwea, 2009; Izugbara and Ezeh, 2010; Oladapo, *et al.,* 2005; Odukogbe *et al.,* 2001, Gharoro and Igbafe 2001). With a total fertility rate of 5.7 (NPC and ICF Macro 2009) in Nigeria, there's a great likelihood of having women with high parity in the country. Indeed, incidences of 5.1% and 7.34% have been observed for grand multiparity in some studies in Nigeria (Kuti *et al.,* 2001, Gharoro and Igbafe 2001).

High parity, especially the grand and great grand multiparity has gained considerable attention from obstetricians because of known and documented complications associated with repeated childbirth (Odukogbe *et al.,* 2001, Kuti *et al.,* 2001, Gharoro and Igbafe 2001, Nassan *et al*., 2006, Omole Ohonsi and Ashimi 2011). It is associated with increased risk of maternal and perinatal mortality and morbidity (Omole Ohonsi and Ashimi, 2011). Additionally, antenatal complications associated with grandmultiparity include gestational diabetes, hypertension, anaemia, antepartum haemorrhage, preterm labour and malpresentation. (Juntunen *et al.*1997, Kuti *et al.,* 2001, Nassan *et al.,* 2006, Shaista *et al.,* 2009). Other complications associated with high parity include malposition, feto-pelvic disproportion, uterine rupture, postpartum haemorrhage, intrauterine death, macrosomia and subsequent operative delivery with its consequent risk of maternal mortality and morbidity. The risk is higher for great grand multiparous women compared to grand multiparous women (Shechter *et al.,* 2010).

Despite these obvious risks many women are still having many children and very few are using contraception (Oye-Adeniran *et al.,* 2005, Oye-Adeniran *et al.,* 2006, NPC and ICF Macro 2009). In a study on reasons for index grandmultiparous pregnancy by Kuti *et al.,* (2001), the most frequent reasons given by women for the index pregnancy included desire for large family (25.9%), loss of previous children (24.1%), mistake (16.7%) and desire for male child (14.8%). With reports like these, it begs the question as to whether women do actually understand the nature of the risks they are exposed to with high

parity. On the contrary, In developed countries a decrease in the incidence of grand multipara has been observed in most western countries even as the risks due to grandmultiparity are being contained by good, modern and adequate health care system (Bugg *et al.,* 2002).

Parity, the number of deliveries by a woman after the gestational age of viability has been described using several terminologies which include nulliparity, primiparity, multiparity, grand multiparity and great grand multiparity implying increasing number of deliveries. These have sometimes been incorrectly applied by clinicians and midwives alike (Opara and Zaidi, 2007). High parity *per se* is not a strict obstetric phrase but for the purpose of our study it includes deliveries of five or more after the age of viability (grand and great grand multiparity).

Most studies on grand and great grandmultiparity examined the characteristics and associated risk which are well documented, however, only few studies have evaluated women`s knowledge of the obstetric risks and implications of high parity generally especially in our environment (Onah, 2004). This cross-sectional study carried out among antenatal clinic attendees in two hospitals in Akwa Ibom state in South South Nigeria is, to our knowledge, the first of such in the geopolitical zone. The purpose of this study was to explore the level of awareness and knowledge about obstetric risks women attending antenatal care are exposed in two health facilities in Uyo, South-Southern Nigeria. Findings from this study would be useful in strengthening current antenatal health education programmes with subsequent informed fertility choices and improved contraceptive uptake thus contributing to the ongoing health-related Millennium Development Goals.

MATERIALS AND METHODS

Setting: Uyo is the capital city of Akwa Ibom State in the Niger Delta region in the South-south geopolitical region of Nigeria. The people are mainly Christians, monogamous and of the Ibibio/Efik speaking stock. The state has a population of about 4 million people and is served by one tertiary health institution, the University of Uyo Teaching Hospital (UUTH). Another health institution, the St Lukes Hospital, Anua, Uyo functions as a secondary health facility in the capital city and enjoys good patronage from women of the middle and lower socio economic class as the cost of services, especially maternity services, for which it is reputed, is much cheaper. A number of Primary Health Centres also provide basic maternal and child health care to the women. Both the tertiary and secondary health facilities were used for better socio-demographic spread thus making for better targeting of possible interventions.

Sources of data and Analysis: This was a cross-sectional study utilizing semi-structured questionnaire to collect pertinent information about level of awareness of risks associated with parity and grandmultiparity. The questionnaires covered areas of socio-demographic characteristics of respondents, their fertility profiles and knowledge of the risk factors associated with having many children especially above four. The questionnaire included both open-ended and closed-ended questions.

Assuming a maximum variability of 0.5 and a precision of ±5% at 95% confidence level, a minimum sample size of 400 was obtained from the table provided by Israel (2009) for large populations. To make up for non-response, a sample of 550 consecutive women attending the antenatal care units of both the tertiary and secondary health facilities who consented to participate in the study were requested to complete the questionnaires which had been pre-tested among the antenatal attendees. Nurses were recruited as research assistants and specially trained to provide assistance to those who may require such in completing the questionnaire. The only exclusion criterion was refusal to give consent. The questionnaires were carefully examined for completion, coded and entered into the computer for analysis by the researcher. Data obtained were analysed using the Statistical Package for Social Sciences (SPSS) version 17 for Windows. Level of significance was set at $p<0.05$

RESULTS

A total of 550 women participated in the study with 464 (84.4% - 286 from UUTH and 178 from Anua) correctly completing the questionnaire items on health risks of high parity and these were used for the analysis.

Socio-demographic characteristics

Majority of the clients (90.1%) were between the ages of 20 – 34 years with a mean age of 27.88 (±4.584) years. The married respondents were in the majority (93.5%) while those engaged constituted 3.5% and those who had never been married were 1.5%. Out of the married respondents, 96.8% were in their first marriage and 97.4% were in monogamous relationships. However, 27.4% of the women were born into polygamous homes. A significant proportion of women (53.0%) were in their first pregnancy – primipara, 44.8% had had one to four deliveries/childbirths – multipara, while 2.1% had had five or more pregnancies in the past – grandmultipara.

The Pentecostal was the most prevalent religious affiliation among respondents (53.6%). Other religious affiliations were Catholic 18.7%, spiritual 10.6%, protestant 9.0% and Islam 1.4%. Students constituted 27.6% of respondents while civil/public servants, sales/trading, professional and fulltime housewives were 24.3%, 17.1%, 5.0% and 4.8% respectively. Some (11.4%) were however, unemployed. About 90% of respondents had at least a secondary level education and 44.5% of respondents had had a university education.

Awareness of risks of medical risks associated with high parity

In response to the question on risks associated with having many children, 87.5% indicated that there were risks associated with high parity (89.3% of women in SLHA and 86.4% of women in UUTH). However, majority of the respondents could not identify or mention such health risks. The different risks indicated are outlined in table 1.

Other risks mentioned by respondents (3.7%) on the open-ended question on risks were mainly economic and social and inability to cater for the children. One respondent feared that the children may become armed robbers.

The identification of risks of high parity was significantly related to education (p=0.016) and the age of the respondent (p=0.003). The more educated and older the respondent, the greater the likelihood of the respondent identifying a hazard of high parity. There was however no significant relationship between the identification of risks of high parity and religion (p=0.610) or parity (p=0.638) of respondent.

Table1. Risks of having many children indicated by women

Risks	% of women identifying risk
Poor health of surviving children	56.4
Poor health of mother	44.8
Death at delivery	20.7
Excessive bleeding	19.7
Lack of blood (Anaemia)	14.5
Ruptured uterus	9.9
Obstructed labour	9.4

DISCUSSION

The result of our study shows that while majority of women in Uyo are aware that there are dangers associated with high parity, 12.5% of our respondents do not think there are health risks associated with having many children. This contrasts with findings by Onah (2004) from Eastern Nigeria where only 5.7% of grandmultiparous women felt that having many children was harmless to their health. This figure is significant considering the implications of high parity on maternal and neonatal morbidity and mortality and the long term socio-economic sequale. This is more so when viewed in the light of a high total fertility ratio of 5.7 in Nigeria in an economy that is not developed.

Among the 87.5% who indicated that there were risks associated with high parity, the most common risks given were poor health either of the surviving children (56.4%) or of the mother (44.6%). They were unable to identify the more specific risks such as anaemia, excessive bleeding which are known causes of maternal death identified by 20.7% of respondents. The study therefore shows a general lack of knowledge on the risk factors of high parity in general and grand multiparity in particular by women in Uyo. This contrasts with findings in the study on knowledge of obstetric risks associated with grandmultiparity carried out in Eastern Nigeria by Onah (2004) where more of the women were able to identify specific complications of high parity maternal death, uterine rupture, essential hypertension, Caesarean section, antepartum haemorrhage, anaemia and abnormal lie. The difference probably relate to the fact that there are more grandmultipara in the eastern part of Nigeria which also has a higher total fertility rate compared with the south south zone (NPC and ICF Macro 2009). More adverse effects may have been directly encountered by more women or those they know. Unfortunately our questionnaire did not contain questions on previous adverse experience among the multipara which would have helped in further analysis.

Other reasons given by women who believed there are risk associated with high parity were mainly socio-cultural and economic including child abuse/ trafficking, economic hardship, high cost of living and inability to care for and train children. This is not surprising as high parity on its own is often associated with low socio-economic background prevalent in the less developed nations of the world such as ours (Onah 2004).

The identification of risk factors by respondents in our study was significantly related to respondent's educational status and age and we know that education increases with age. There was however, no significant association with parity which also increases with age. This would tend to suggest that the respondents have not benefited from appropriate health education during the antenatal period with regards to the hazards of high parity. It is important to make use of the greater contact

with the health system during the antenatal period to enlighten the women on the dangers of grandmultiparity and thereafter leave them to make their choices. Inherent therein is the fact that contraceptive services with a range of products must be made available to help the women exercise any such choices with regards to their fertility. Despite the fact that the prevalence of grandmultipara in our study was low, information must be made available during the antenatal period in order to ensure that women exercise their choices based on knowledge.

Expectedly, there was no significant association between the knowledge of the health risks of high parity and religion as many religious groups are more likely to encourage their members to accept pregnancy as the gift of God rather than dwell on the dangers there-in.

In conclusion, our study shows that while women in Uyo are aware that there are dangers associated with high parity, they generally have poor knowledge of these dangers. It is important to utilize the antenatal period and women's contact with the health system to provide appropriate information on grandmultiparity in order to help women make informed choices with regards to their fertility. A qualitative research into the content of antenatal health education currently being given to our women is strongly suggested to further identify possible areas of intervention.

Conflict of interest: The authors declare that they have no conflict of interest in the conduct of this study and the production of this manuscript.

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