Socio-demographic Profile of Older First Time Mothers at the University of Calabar Teaching Hospital, Calabar, Southern Nigeria

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ABSTRACT

Objective: The study set out to determine the socio-demographic profile of women who have their first childbirth at age ≥30 years in Calabar, Southern Nigeria.

Methodology: This was a cross sectional study applying a semi-structured interview. Participants were recruited from the University of Calabar Teaching Hospital over a 5 month period. We compared the socio-demographic characteristics of the primiparous women aged ≥30 years with a control group of multiparous women, also aged ≥30 years, but who had ≥1 previous delivery before age 30.

Results: Eighty-six and 254 women formed the study and control groups respectively. Women in the study group were more likely to have university degrees (P= 0.000) or to still be undergraduates (P=0.0002) than women in the control group. The proportion of women in professional occupations was higher than in the control group (P = 0.047%), while the proportion of housewives was significantly lower (P= 0.002). The proportion of Annang women in the study group was significantly higher than in the control group (P= 0.011), while that of Ibibio women was significantly lower (P = 0.0006). Muslims were significantly less likely to delay motherhood till age 30 (P=0.038), while the differences in Church affiliations for the 2 groups of women were not significant (P>0.05).

Conclusion: Compared to others, university-educated women, women in professional occupations and Annang women living in Cross River State are more inclined to commence motherhood at age ≥30 years.

Key words: Profile, Older, Primiparous, Calabar

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INTRODUCTION

The chance of a woman achieving a pregnancy and also having a successful outcome drops with age[1]. Despite this fact, reports indicate that the average maternal age at first childbirth is rising in many nations of the world and in countries like Germany, Spain, Switzerland and the United Kingdom; it is closely approaching 30 years[2]. Several countries in sub-Saharan Africa have also begun to record an upward trend in the average age at first birth[3]. Marriage, which is still the context in which most births occur, is also taking place at later ages[4]. The overall picture reflects a gradual shift towards a delayed pattern of family formation as is occurring in more developed nations[4]. Recent demographic and health surveys show that Nigeria is not left out of this global trend[5]. Onah and Eze[6], in their study spanning 21 years,

noted that there has been a significant increase in the mean age of primigravida and the proportion of elderly primigravida (women aged ≥ 35 years at first birth) in Enugu, Southern Nigeria. A multicenter study by Nwagha et al [7], also in Enugu, recorded a high mean age of 29.2±5.6 years for primigravida presenting at the antenatal clinic for the booking visit. The reported prevalence of elderly primigravidity in Nigeria ranges from 2.0% to 4.4% [8,9,10]. Delaying childbearing has the advantage of allowing women to acquire the biological maturity as well as the physical and psychological resources they need to undertake motherhood successfully, but protracted delays also have medical consequences. Ojo and Oronsaye[11], in their study to establish who should be termed an elderly primigravida in Nigeria, found that the rate of complications in pregnancy and labour begin to increase significantly for primigravida at age 25 and become even further heightened above age 29. Mukherjee and Chowdhury [12] found a higher perinatal mortality rate in women aged ≥30 years compared to younger women. The rates of gestational diabetes, third trimester bleeding and pre-existing diseases complicating pregnancy are higher [1,11-14]. There are also higher rates of intrauterine growth restriction, prematurity and fetal chromosomal abnormalities [1,11-14]. Apart from the risks in pregnancy, the decision to merely postpone childbearing has saddled women with unanticipated childlessness because of age-related decline in fertility [15]. In societies were postponing motherhood is pronounced; the consequence of the attendant decline in total fertility rate has been a worrisome reduction in population renewals through births [16].

Studies suggest that the pursuit of education and career goals is causing women to deliberately postpone motherhood in the more developed countries. Therefore, women who delay childbearing in these countries are more highly educated and work in occupations that require more advanced skills [16-18]. What are the socio-demographic characteristics of women in Calabar who become mothers for the first time in their thirties and forties? Are the women more educated? Which types of occupation would we find them? Is religion a factor? Does ethnicity play any role? Profiling the women will aid in identifying the background factors that predispose women in Calabar to intentionally or unintentionally delay motherhood.

METHOD

The setting for the study was the Maternal and Child Health Clinic of the University of Calabar Teaching Hospital (UCTH) in Calabar, Cross River State, Southern Nigeria. It is situated in the maternity section of the hospital and provides maternal and child health services including postnatal care, health education, infant immunization and treatment of common childhood illnesses. Mothers and their infants are usually referred to this clinic on discharge post-delivery. After approval from the ethical committee of the hospital, consenting primipara who were ≥ 30 years old at childbirth were recruited into the study group. All consenting multipara who attended the clinic during the period the participants in the study group were enlisted, were recruited into the control group if they were aged ≥ 30 years at the recent birth and had at least one previous delivery before the age of 30. We excluded women with a previous history of infertility. The choice of a similar age group for the control was to reduce the chance that any difference in educational or occupational attainment is due to age disparity. Women who met the criteria were identified by research assistants and consent to participate were obtained. Each woman was then interviewed by

a research assistant who also administered a pre-tested questionnaire. Information obtained included parity, highest educational qualification acquired, ethnicity, marital status, religious affiliation, occupation, place of work, rank and a description of her responsibilities at work. This enabled the appropriate classification of the individual's occupation as professional, managerial and technical, skilled, partly-skilled or unskilled [19].

The minimum sample size for the study (at 95% confidence level) was calculated to be 83 based on hospital records which showed that first births to mothers aged ≥ 30 years accounted for 331 (5.7%) of the 5773 total deliveries in the preceding five years (2002-2006). We however decided to recruit ninety-one women into the study group to cover for attrition. The data was analyzed using Epiinfo 2002 statistical package. Proportions were presented as percentages and the socio-demographic characteristics of the two groups were compared using student's t-test and chi-square as appropriate. A P-value of ≤0.05 was considered statistically significant.

RESULTS

A total of 352 women were recruited into the study, of which, 91 were first-time mothers**.** Eighty-six of the 91 women (95%) provided complete data for analyses, while 254 (97%) of the 261 women recruited into the control group provided same. Subsequent analyses were based on these women with complete data. The ratio of the women in the study group to women in the control group was 1:3. The control group ranged in parity from 2-8, with a mean of 4.07. The age range for the study group was 30-40 years with a mean of 32.2±2.4 years and for the control group; the age range was 30-42 years with a mean of 32.1±2.7 years. The difference was not significant (P = 0.72). Eighty-four (97.7%) women in the study group and 251 (98.8%) women in the control group were married.

Table 1 compares the highest educational qualification obtained by the two groups of women. It shows that the women in the study group were more highly educated than the control group. The number of women in the study group who either had no educational qualification or had educational qualifications lower than senior secondary school certificate (SSCE) was 5 (5.8%) as against 48 (18.9%) in the control group. The difference was statistically significant (P = 0.004). Those who had SSCE were 28 (32.6%) in the study group as against 117 (46.1%) in the control group. The difference was also statistically significant (P =0.028). On the other hand, 35 women (40.7%) in the study group had university degrees as against 49 (19.3%) women in the control group and the difference was statistically

Significant (P = 0.000).

Table 1: Highest educational Qualification Obtained by the Women: Study and Control Groups Compared

Qualification	**Study group n = 86 (100%)**	**Control group n=254 (100%)**	**P value**
Lower than Senior secondary school certificate	5 (5.8)	48 (18.9)	0.004
Senior secondary school certificate	28 (32.6)	117 (46.1)	0.028
Post-secondary Diploma	18 (20.9)	40 (15.7)	0.27
Bachelors/masters degree	35 (40.7)	49 (19.3)	0.000

Table 2: Classification of the Women's Occupation: Study and Control Groups Compared

Classification	Study group n = 86 (100%)	Control group n=254 (100%)	P value
Professional	8 (9.3)	10 (3.9)	0.047
Managerial/Technical	16 (18.6)	34 (13.4)	0.22
Skilled	19 (22.1)	44 (17.3)	0.325
Partly skilled	17 (19.8)	108 (42.5)	0.000
Unskilled	3 (3.5)	5 (2.0)	0.33
House wives	1 (1.2)	33(13.0)	0.002
Unemployed	7 (8.1)	8 (3.1)	0.06
Undergraduate	15 (17.4)	12 (4.7)	0.0002

As shown in Table 2, women in the study group were significantly more likely to be found in professional occupations than the control group (9.3% versus 3.9%, P= 0.047) and they were also more likely to be found among undergraduates (17.4% versus 4.7%, P=0.0002). On the other hand, the women in the study group were significantly less likely to belong to partly skilled occupations (19.8% and 42.5%, P =0.000), and to be housewives (1.2% versus 13%, P 0.002).

The ethnic origin and religious affiliations of women in both groups are compared in table 3 and 4 respectively. Annang women were more likely than the other ethnic groups to delay childbearing till age 30 (P = 0.011), while Ibibio women were the least likely to do same (P =0.0006). Three hundred and twenty-nine (96.8%) of the participants described themselves as Christians and the differences in church affiliations in the two groups were not statistically significant (P > 0.05). On the other hand, Muslim women were significantly less likely to delay motherhood to age 30 (P=0.038).

Table 3: Ethnicity of the Women: Study and Control Groups Compared

Ethnic group	Study group n = 86 (100%)	Control group n=254 (100%)	P value
Cross River State			
Efik	12 (14.0)	42 (16.5)	0.57
Ejagham	12 (14.0)	37 (14.6)	0.89
Bekwara	6 (7.0)	10 (3.9)	0.19
Others	10 (11.6)	19 (7.5)	0.23
Akwa Ibom State			
Ibibio	9 (10.5)	73 (28.7)	0.0006
Annang	14 (16.3)	18 (7.1)	0.011
Others	6 (7.0)	12 (4.7)	0.29
Ibo	12 (14.0)	26 (10.2)	0.34
Others	5 (5.8)	17 (6.7)	0.78

Table 4: Religious Affiliations of the Women: Study and Control Groups Compared

Religious Group	Study group n = 86 (100%)	Control group N=254 (100%)	P value
Catholics	12 (14.0)	45 (17.7)	0.41
Traditional Protestant Churches	27 (31.4)	75 (29.5)	0.74
Pentecostal churches	28 (32.5)	75 (29.5)	0.59
Spiritual churches	17 (19.8)	43 (16.9)	0.55
Other Christian groups	2 (2.3)	5 (2.0)	0.84
Muslims	0 (0.0)	11 (4.3)	0.038

DISCUSSION

Our study shows that the proportion of women with university degrees is significantly higher among those who commence motherhood at age 30 or above than among women who commence earlier. That women who delay childbearing are more highly educated, is in keeping with findings in other parts of the world [16-18,20-22]. High education levels have a direct effect on maternity postponement in addition to other possible effects [21]. The additional years spent in higher education act mechanically to increase the age when women enter into motherhood as there are clear indications in the literature that being still in education inhibits entry into motherhood [21]. This fact is supported by our finding that the proportion of undergraduate mothers was significantly higher among women who commenced motherhood at age 30 and beyond than among those who commenced earlier.

Events in Nigeria's education sector allude to the fact that the additional years university students spend in educational pursuit after secondary school is longer than it should be and may have contributed to our finding. For one, the waiting time before gaining admission into a university is long [23]. The poor economy and the high unemployment rate have led to phenomenal increases in annual demand for university education such that the total absorptive capacity of the available universities is unable to satisfy up to 25% of the demand [23,24]. Secondly, the universities have been disproportionately plagued with industrial actions and students' unrests as a fall out of the under-funding of the sector [24]. University-educated women are therefore likely to be older at graduation and when they enter into family formation than they would have been without these interruptions.

Our study also shows that the proportion of women in professional occupations (professions with a university degree as the minimum entry requirement) among those who delay motherhood is significantly higher than among those who commence earlier. Conversely, there are significantly more housewives and women of lower socio-economic status among those who start earlier. The picture suggests that like women in other parts of the world, participation in the labour force is important to women who delay childbearing here[17]. By extension, achieving financial independence and/or the ability to contribute to the family's income also seem to be important. Vezina and Turcotte in Canada [16] and Beets in Netherlands[17] also noted that women who delayed motherhood were more likely to be found in professional occupations than other women. This is to be expected given the better educational background of the

women. However, the search for a satisfying job and the demands of a career especially at the building phase can also be the major reasons why our women in professional occupations delay parenthood [21,22]. Further studies are necessary to confirm or refute this.

The study also revealed that ethnicity and religion overtly or covertly play a role in the timing of entry into motherhood in the state. Interestingly, significant ethnic differences were noted among women of neighbouring Akwa Ibom state who are resident in Cross River State. While Annang women were the most disposed to commencing childbearing later, Ibibio women were the least disposed to do the same. Although among Christians, religious affiliations had no impact on the timing of entry into motherhood; Muslims were less inclined to delay motherhood in line with the finding of others [25]. Our dual finding of the importance of ethnicity and religion in the timing of entry into motherhood in the state is in contrast with Otieno and Bocquier's [26] findings in Nairobi, Kenya. Religious affiliations of the participants in their study influenced entry into motherhood, but ethnicity did not. Although our findings remain to be explained, the answers may lie in the different values and attitudes towards sex, marriage and parenthood that is transmitted through ethnic and religious lines or in the proportion of women in these groups who receive a higher education.

CONCLUSION AND RECOMMENDATIONS

Compared to women who commence motherhood earlier, those who delay childbearing are significantly more educated and belong to professional occupations. Higher educational attainment and a quest to participate in the labour force seem to play major roles in the delay. With the upward trend in women seeking university education [27], the number of women who will delay motherhood is set to rise and so will the attendant medical and societal consequences. Measures that will increase the total admission capacity of universities and also those that will contain the rampant industrial actions in the universities should be put in place to reduce this risk. Equally important, is incorporating into reproductive health education, the risks of unduly postponing childbirth. Also, the underlying factors responsible for the ethnic influence observed in the study will need to be identified by further studies.

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