

A Comparative Study of Socio-cultural Factors Contributing to Maternal Mortality in Urban and Rural Areas of the Southern Part of Edo State, Nigeria.

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Abstract

Maternal mortality is a major health problem in Sub-Saharan Africa. This study investigated the difference in socio-cultural factors contributing to maternal mortality in urban and rural areas of in the Southern part of Edo State (Nigeria). The descriptive survey research design was adopted for the study that involved two thousand one hundred and fifty seven (2,157) women of reproductive age selected through a multi-stage sampling random sampling technique. Data collection was done by the means of (i) a self developed structured and validated questionnaire with a reliability index of 0.82, (ii) focus group discussion (FGD) and, (iii) an in-depth interview guide.

The results showed no significant difference between urban and rural women in decision making power ($\chi^2 = 0.63; p > .5$). Early marriage and early child bearing are significantly more prevalent in the urban areas than in rural areas ($\chi^2 = 205.33, df = 6; p > .5$). Early marriage, which is traditionally a rural phenomenon, seem to be shifting to urban communities.

Key words

socio-cultural, urban and rural areas, southern part of Edo State, maternal mortality.

Introduction

Pregnancy related complications are the main causes of death and disability among women of reproductive age worldwide. It is also known to be a major health problem in Sub-Saharan Africa. Estimates by the

World Health Organisation (WHO) and United Nations Children's Fund (UNICEF, 1996) show that each year 55,000 women die from causes related to pregnancy and child birth. The disparity between industrialised and developing countries on maternal mortality is greater than is the case for other commonly used health index (Maine, Akalin, Ward & Kamara, 1997). For an individual woman, the risk of maternal death is influenced both by factors associated with pregnancy and the gravid rate (the number of times she becomes pregnant). Each time a woman becomes pregnant, she runs the risk of maternal death again and the risk is cumulative. In developing countries, where fertility tends to be high, the life time risks with maternal death can also be extremely high.

In Africa, the average number of live births per woman is 6.4 and in rural areas, it is quite common for a woman to give birth to eight live babies while being pregnant on several more occasions (Chiwuzie, Braimoh, Unuigbo & Olumeko, 1995). These women have a life time risk of at least one in fifteen dying from pregnancy-related causes since most births in developing countries take place outside health facilities.

The socio-cultural factors upon which this work is based include attitudes, beliefs, expectations and values of a given people. Studies on socio-cultural differences in health behavior and more importantly on inequalities in access to health care are important in improving knowledge of communities and in identifying high risk groups. The most effective strategy for reducing maternal deaths therefore is to ensure that complications of pregnancy and delivery are recognized once they occur and that women are taken to a facility with professionals who can provide care for complications and to stretch available resources to the rural areas.

The objective of this study, therefore is to relatively influence the following variables on pregnancy-related maternal deaths in urban and rural areas in the Southern part of Edo State, Nigeria-early marriage/early child bearing, educational attainment, socio-economic status, female genital mutilation, access to obstetric care services, women decision making power and access to health care services.

Methodology

Hypothesis

The study hypothesized that there will be no significant difference between urban and rural areas in the socio-cultural variables contributing to maternal mortality.

Sampling

The population was made up of all females of reproductive age who were married, all health workers and all relatives of women who died in pregnancy, labour, and puerperium. A first stage cluster sample was randomly selected. Then, came a second stage sample selected from among the cluster samples of the first stage. Of the seven local government areas in Edo South Senatorial District, three were identified by the Independent National Electoral Commission (1998) as predominantly urban and four predominantly rural.

Using the simple random sampling technique, two local government areas were chosen from the urban areas that formed the first cluster and two from the rural that formed the second cluster. The participants for the study were drawn from 44 wards in the four local government areas selected. Sixty percent of wards were selected using proportional random sampling. In each participating ward, married women of reproductive age (15-49 years) were drawn as respondents, using the convenience sampling technique. A total of two thousand one hundred and fifty seven urban and rural married women of reproductive age 15-49 years selected from the four Local Government Areas formed the sample for the study.

Data Collection

Instruments: The research instruments were questionnaire (which is the main instrument), Focus Group Discussions (FGD) and In-depth interview of health workers and relatives of the subjects. To ascertain reliability, the corrected version of the questionnaire was administered to 200 adults of reproductive age from urban and rural areas of one local government area. Outside the sampled communities, data collected were correlated to estimate the reliability of the instrument using the Cronbach coefficient (R), which produced a correlation co-efficient of 0.82.

Procedure: Two interviews were conducted, one with health workers and the other with relations of women who had died in pregnancy, labour and puerperium. In all, 59 respondents participated in the study. The interviews for health workers were conducted in hospitals/health centers/traditional birth attendants' clinics, in the wards already selected for study.

FGD, using volunteers, were also conducted in the four local government areas used for the study. Forty eight participants were involved in the four FGD—two from urban and two from rural areas. The time, date and venues for discussions were specified to those who volunteered. Discussion group sessions were conducted with the investigator playing the role of moderator. There was also a note taker and guard to prevent distraction during the course of the discussions. The guard ensured that the venue was conducive for the discussion. In all, four sessions were held.

The researcher, assisted by ten assistants, administered the questionnaire on the respondents. For non-literate women, the questions were discussed and read out to the illiterate women in pidgin English or native language and their responses recorded by the researcher and her assistants. The questionnaires were collected immediately after administration.

Data Analysis: The data collected were analyzed using the Statistical Analytical System (SAS) mode. Descriptive statistics of frequencies were used to describe the demographic data. The chi-square analysis was used to test the hypothesis at 0.05 level of significance. Focus Group Discussion was transcribed into words and analyzed qualitatively. In-depth interviews were sorted and coded for computer analysis.

Results

Demographic Variables: Analyses were conducted to identify frequencies and percentages of selected demographic and background variables of the participants. Most participants in the two locations, rural (24.80%) and urban (19.24%) are between the ages of 26-35 years, followed by a good number, rural (14.84%) and urban (12.10%) between the ages of 36-45 years. Insignificant numbers are between the ages of 15-25 and above 45 years both in rural and urban areas.

Table 1. Demographic Data

Age range of respondents	Rural		Urban	
	Frequency	Percentage	Frequency	Percentage
15 - 25	197	9.13	222	10.29
26 - 35	535	24.80	415	19.24
36 - 45	320	14.84	261	12.10
> 45	107	4.96	93	4.31

Frequency missing =18

Influence of Socio-Cultural variables

Chi squared (χ^2) was used to test the hypothesis that “there will be no significant difference in the socio cultural variables contributing to maternal mortality in urban and rural areas of Southern part of Edo State compare the contribution of the socio cultural variables under study in urban and rural areas to maternal mortality.” The result showed that urban/rural area had no part to play in the inability of women to take decisions. There are differences in the contribution of the other six variable in urban and rural areas to maternal mortality. The early marriage/early child bearing variable, out of the six contributed more in urban areas than rural areas. The other five variables, however contributed more in rural areas than urban areas; they are educational attainment, economic status, female genital mutilation, health care services and traditional obstetric care services.

Table 2. Relative Influences of Selected Socio-cultural Factors Contributing to Maternal Mortality in urban & rural areas of Edo South Senatorial District of Nigeria

	Variables	RURAL				URBAN				Total	χ^2	Prob
		Agreed		Dis-Agreed		Agreed		Dis-Agreed				
		Re-spondents	%	Re-spondents	%	Re-spondents	%	Re-spondents	%			
1	Educational attainment	2917	33.88	1779	20.66	2529	29.39	1386	16.10	8611	5.659	0.017*
2	Economic status	3372	39.54	1184	13.88	2823	33.10	1149	13.47	8528	9.23	0.002*

	Variables	RURAL				URBAN				Total	χ^2	Prob
		Agreed		Dis-Agreed		Agreed		Dis-Agreed				
		Re- sponde nts	%	Re- sponde nts	%	Re- sponde nts	%	Re- sponde nts	%			
3	Health care services	3538	41.72	1064	12.56	712	8.41	3156	37.26	8740	2874.18	0.001*
4	Early marriage/ child bearing	2640	31.0	1946	22.85	2849	33.45	1082	12.70	8517	205.33	0.001*
5	Female genital mutilation	2447	28.73	2154	25.29	2400	28.18	1517	17.81	8518	56.43	0.001*
6	Women decision making power	3092	36.16	1525	17.84	2602	30.43	1331	15.57	8550	0.63	0.428 NS
7	Traditional obstetric care services	2078	33.05	1330	21.15	1611	25.62	1269	20.18	6288	16.33	0.001*

$df = 6$

* $p < .05$, NS (Not Significant)

Table 2 shows the comparison in the contribution of the socio-cultural variables under study to maternal mortality in urban and rural areas of Edo South Senatorial District. According to findings, the comparison between rural and urban areas based on these variables show that there were significant differences in educational attainment ($\chi^2 = 5.659$; $df = 6$; $p < .05$), economic status ($\chi^2 = 9.23$; $df = 6$; $p < .05$), access to health care services ($\chi^2 = 2874.18$; $df = 6$; $p < .05$) early marriage/ child bearing ($\chi^2 = 205.33$; $df = 6$; $p < .05$) female genital mutilation ($\chi^2 = 56.43$; $df = 6$; $p < .05$), and traditional obstetric care services ($\chi^2 = 16.33$; $df = 6$; $p < .05$), as predictors of maternal mortality. Therefore the hypothesis that there would be no significant difference in the contribution of maternal mortality in urban and rural areas, on the above variables, is rejected.

However, the only variable that did not reveal any significant difference between the urban and rural areas under study is women decision-making power ($\chi^2 = 0.63$; $df = 6$; $p > .05$). The hypothesis, that there would be no significant difference in women decision-making power as a factor of maternal mortality in urban and rural areas, is not rejected.

Discussion

The difference in the contribution of lack of formal education as a factor of maternal mortality in urban and rural areas of Edo South Senatorial District stems from opportunities available in urban areas, like schools, unlike in rural areas where schools are limited and also access to information through radio, television, posters and newspapers. Vendors sell mostly in urban and not rural areas because of the fear of not being patronized in rural areas. Families in urban areas more readily use radios and televisions than those in rural areas who may not have electricity at all or it may be available but only once in every two weeks making access to information very limited. Posters are commonly seen in urban areas than rural. All these give reliable information, which can help the women have a change in their behavior thereby reducing maternal mortality. Again, in some urban areas satellite schools are being established to provide young illiterates including women with a second chance of basic education without it clashing with their jobs or apprenticeships. This serves as a model for ensuring the achievement of Universal Basic Education (UBE) goals. This opportunity is most of the time not available in the rural areas, making those in the urban areas to have an edge over those in the rural areas with respect to access to information, which goes a long way to reduce maternal mortality. This finding is corroborated by the situation in Bangladesh, as reported by Debashish (1998) where two-thirds of school age girls are not in school and female university enrolment are less than 4%.

The significant difference in socio-economic status as a predictor of maternal health between urban and rural areas under study could also be explained with the fact that women in rural areas are mostly farmers, petty traders and full time housewives who are seen as baby manufacturers and household keepers and nothing else. They may not have money readily to go to the hospital for treatment and child delivery.

In emergency situations, where the husband is not available to provide necessary finances, they may resign their fate to quacks like untrained Traditional Birth Attendants (TBAs) and to even trained TBAs where they may not immediately pay for the treatment for child delivery. They may be allowed to pay later instead of going to the hospital where they will pay more money which may not be immediately available. In-depth interview conducted among five TBAs revealed that most women that

come for delivery and treatment pay them by bringing foodstuffs like yam, cassava, hot drinks and other things they have in their houses, and this arrangement may take long before its arrival. They stressed that most of the women do not have immediate cash to pay. In rural areas, practice of common wealth is high—every body is for each other. This is well established and it is a traditional African culture. The disadvantage of this is that each family's income is not for them alone. It is shared to the extended families thereby reducing the amount in circulation to that particular family. Subsequently, the amount to be given to a pregnant woman for feeding is very much reduced leading to poor feeding in pregnancy, which could lead to anemia, heart disorder and death. Furthermore, because of male chauvinism and marrying of many wives, income and attention are all divided. There is little for the woman and her children, a situation that could lead to poor nutrition. These factors are endemic in rural areas unlike in urban are as where, enhanced economic empowerment promotes individualism. This could lead to more money being in circulation in a particular family leading to better nutrition and more money to pay for health care services and reduction of maternal mortality.

The reason is possibly that health services are poorly located in rural areas. Most rural areas do not have any health care or maternity center. Even when they have, the health facility may just be physically existing but not functional. Many are poorly equipped and lack essential supplies and qualified staffs. As a result of this, most women in rural areas go extra miles for treatment and child delivery in a better-established hospitals/clinics. They are more disadvantaged because in an emergency there may not be transport to take them to hospital. Even if there is as earlier indicated, there may be that unwillingness to travel far for fear of delivering on the way before getting to the hospital.

The study also reveals a significant difference in contribution of early marriage to maternal mortality in the urban and rural areas of Edo South Senatorial District. This contradicts the earlier findings by UNFPA (2000) and Ocheing (2002) who found out in their research in Nigeria that forced early marriages and insufficient knowledge of good health practices are exacerbated by lack of quality maternal health care, which can lead to death. Ocheing and UNFPA again observed that maternal mortality as a result of early child bearing is seen more in rural areas. The present research however contradicts this and instead found death of

women as a result of early marriage/child bearing to be more predominant in urban areas than rural. The reason may have been as a result of poor economy in the country especially in rural areas, leading to rural-urban migration. Migration is a major factor in bringing about social change. This change is due mainly to the various effects of modernization including education, growth of cities, migration and accelerated change of country's economy from subsistence to industrial. The cities and urban towns create attractions especially for girls who are hard up and looking for greener pastures. There is therefore search for wage appointment, need to benefit from the provision of infrastructural facilities which are non-existent in the rural community. Most of the girls, in the search of what to do and how to help their family to survive, indulge in prostitution (call girls), which may not yield any dividends if they are in the rural area. Men who look for them may not like to drive as far as rural areas for fear of car snatching in the night. Therefore, girls, on their own part, move to urban areas where they can rent houses which serve as a base to take off from in the evenings to look for "customers". Girls who indulge in such acts are more likely to have an unwanted pregnancy especially at an early age and, if not well taken care of, can lead to complications and subsequently death. Also social control is loose in urban than rural areas girls tend to do what they like more in urban areas. There are more anti social behaviors in urban areas like drug abuse, prostitution and situations where girls may live with boys without getting married and this can lead to pregnancy and subsequently, early child bearing and if adequate care is not taken can lead to complications and death. Many people do not consider rural areas viable for investment, girls hawkers are more in urban areas and men touch them occasionally and put ideas into their heads, which could lead to sexual relationship and may result in pregnancy and if not well taking care of, complications may arise and subsequently death.

Results showed a slight difference in the contribution of female genital mutilation to the prediction of maternal mortality in urban and rural areas. Female Genital Mutilation (FGM) is practiced in both urban and rural areas generally, but more in rural areas. Marchie (2005) confirmed this practice in a study carried out to look at knowledge and attitude profiles of working class women in a community of South-South, Nigeria on consequences of FGM. The result showed they had positive attitude towards female genital mutilation. It is therefore more likely to be

practiced in rural areas because of ignorance and illiteracy, which is more predominant in rural areas. Another reason is that, the rural area is the traditional and cultural area, where more of cultural practice like FGM is practiced. The reason for holding the practice of FGM tenaciously stems from old culture, which is difficult to get rid of despite the consequences involved in the practice. FGM, no matter how small can lead to serious complications during labour, ranging from prolonged bleeding to obstructed labour. Though women in the urban areas practice it, they are more exposed to information through radio, television, newspapers and posters where they continuously talk about dangers associated with FGM. They are likely to have a change of mind more readily than those in the rural areas due to differences in exposure.

The result on women decision-making power showed that location had no part to play in the inability of women to make decisions. There is therefore no significant difference in the prediction of maternal mortality in the urban and rural areas as a result of women decision-making power. The result corroborates the findings of United Nations (1995) who affirmed that a major barrier for women to the achievement of the highest standard of health is inequality and that this cuts across different geographical regions, social classes, indigenous and ethnic groups. The socio-cultural status of women is intrinsically bound with their reproductive ability. Thus, early child bearing is perceived as a rite of passage into adulthood and enhanced social status. This cultural perception of women encourages child bearing from early adolescence well into middle age irrespective of the risk associated with teenage, repeated and inadequate spaced pregnancies. The status of women is not only tied up with the number of children but also rated especially with the number of sons. As most African societies are patrilineal in orientation, absolute premium is placed on having male children to ensure continuity of family line and succession of political offices and property. This strong male preference means women are compelled to go on bearing children to satisfy cultural norms even at the risk of their health and lives. The practice of *pudah* is an extreme form of the denial of participation of right of women. Generally in Edo State and also in most parts of Nigeria, women face an array of barriers to their full participation in various aspects of social life including where to go for treatment and delivery. This is as a result of entrenched cultural attitudes, which put girls/women at a disadvantage in education and so

many other things including public life.

At the community level, women have traditionally been excluded from direct participation in decision-making. In some ethnic groups however, there are some women organizations that provide a forum for the expression of women's feeling. In Edo State and probably in some other parts of Nigeria, decision making on most important matters concerning the nuclear family or extended family is regarded as the exclusive responsibility of males. This cuts across urban and rural areas. A man has to take decision for everything. Therefore, whether a woman is in an urban or rural area, that general culture of women not to be heard still holds. Traditionally women are regarded as baby making apparatus, which is unfair. Since women and children form the bulk of the society, they should not be neglected in decision-making. Amowitz, Reis and Lacopino (2002), in their findings on maternal mortality in a province of Afghanistan reported that 4,117 (87%) of respondents had to obtain permission from their husbands or male relatives to seek health care.

Traditional obstetric care services is the seventh variable that contribute to maternal mortality in urban and rural areas of Edo South Senatorial District. It was revealed that though the use of traditional obstetric care services predicts maternal mortality, its prediction is more in rural than urban areas. Ashford (2001) stated that even training without back up from a functioning referral system and support from professionally trained health workers is not effective in reducing maternal mortality. In some places however the services of skilled professional health care providers are not available and TBAs may be women's only source of care and this unavailability of skilled professional health care providers are more often seen in the rural areas.

TBAs are seen more in rural areas, because they may not have enough customers in the urban areas because of availability of hospitals and health centers. For some pregnant women in rural area, a TBAs clinic is their first port of call for treatment and for delivery. In-depth interview among the health workers revealed that some women especially the rural women go to TBAs before coming to the hospital. Contrary to this report the TBAs stated that some of their patients had gone to government/private hospital and had problems before coming to them for treatment. There may therefore be more deaths in women who go to TBAs clinics for treatment and delivery. As observed by Ashford (2001) that although the role of the traditional birth attendants is well

recognized in rural areas and in depressed sectors of urban centers of many developing countries, their contribution to modern health programs is not yet fully appreciated.

Conclusion

The difference in the contribution of each variable to maternal mortality in both urban and rural areas showed a significant difference in all the variables except women decision making power. Out of the six variables, five variables (educational attainment, economic status, female genital mutilation, traditional obstetric care services and access to health care) contributed more in rural than urban areas while the contribution of the other variable, early marriage/early child bearing alone was more in urban than rural areas. In view of this study, socio-cultural factors indirectly contribute to maternal mortality while medical cause remains the direct cause of maternal mortality. If some of these socio-cultural factors are taken care of or looked into by the Nigerian government, family, community, medical personnel, the problem of maternal mortality will be tremendously reduced.

It is therefore recommended that the government should legislate policies concerning minimum marriage age, also harmful traditional practices and beliefs like female genital mutilation should be stopped. Women should be empowered economically and to take decisions on where to go for health care, especially in an emergency. Subsidized and quality maternal health care should be provided by the government.

There is need for further research which will cover a wider geographical/geopolitical areas of Edo state.

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