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'Are Women Dying from Pregnancy Related Issues?': Perceptions of Local Government Legislators in Ibadan Nigeria on Maternal Mortality and Strategies for its Reduction

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ABSTRACT

Background: Nigeria has one of the highest Maternal Mortality (MM) ratios and political commitment is weak. The perceptions of Local Government Legislators (LGLs) who have important roles to play in formulating policies and enacting laws for reducing MM have not been adequately explored.

Aim and Objectives: This study was designed to determine the perceptions of LGLs in Ibadan relating to MM and strategies for its reduction.

Methods: This cross-sectional study was conducted in the 11 Local Government Areas (LGAs) that constitute Ibadan among 110 consenting legislators out of 113 and purposively selected ten Chairmen of House Committees on Health using pretested semi-structured questionnaire and in-depth interview guide. Descriptive statistics and Chi-square were used to analyze the quantitative data and the qualitative data were subjected to thematic analysis.

Results: Mean age of respondents was 36.5 ± 7.2 years, 39.1% were not aware that MM is high in Nigeria and 91.8% were not aware of any existing policies for reducing MM. Perceptions included abortion not to be legalized in spite of its association with MM (78.2%), maternal health projects not to be financed from constituency allowance (60.9%) and making ANC compulsory would not reduce MM (54.5%). Proffered strategies for reducing MM included training for political leaders (100%), evidence to show political leaders that MM is a public health problem (87.3%) and involvement of traditional leaders. In-depth interviews revealed that HIV/AIDS, Immunization, Tuberculosis and Leprosy control were the top priority health programmes in the LGAs and unsafe abortion was identified as the main cause of MM in their constituencies

Conclusions: Negative perceptions of maternal mortality existed among the legislators. Advocacy and the integration of suggestions into control efforts have potential for ameliorating the problem.

Keywords: Maternal mortality, legislators, perceptions, reduction strategies

Introduction

Maternal mortality remains a major public health concern worldwide. Recent estimates suggest that there has been a 34% decrease in the number of women dying as a result of complications during pregnancy and childbirth from 546 000 in 1990 to 358 000 in 2008[1]. A decrease that is less than the 5.5% annual desired rate of decline necessary to achieve the target of reducing the maternal mortality ratio by three quarters between 1990 and 2015. Almost all maternal deaths (99%) in 2008 occurred in developing countries[1] with an observed slow rate of decline in the WHO African Region with a figure of 620 per 100 000 live births in 2008[1]. The risk of a woman in a developing country dying from a pregnancy-related cause during her lifetime is about 36 times higher compared to a woman living in a developed country[2].

Within this global picture Nigeria ranks second globally in number of maternal deaths[3]. This is exemplified in the maternal mortality ratio documented for one of the Northern States in Nigeria where an average staggering figure of 2,430 (ranging between 1,373 and 4,477) per 100,000 live birth was recorded in year 2005 [4, 5]. Every 30 minutes a Nigerian woman dies from causes related to pregnancy and childbirth[4]. The risk of a woman dying from child birth in Nigeria is estimated to be 1 in 18 compared with 1 in 61 for all developing countries and 1 in 29, 800 for Sweden[6]. The effect of a woman dying at this stage of her reproductive life has far reaching consequences not only on the baby delivered who have been documented to be 5 times more likely to die within two years than children whose mothers are alive[3] on her family and society at large.

Nigeria's Total Health Expenditure (THE) as a proportion of gross domestic product (GDP) declined from 5.0% in 2000 to 3.8% in 2006 while private expenditure on health increased from 66.5% to 70.3%[7]. This does not compare favourably with the average ratio of 7.2% of THE/GDP for the Eastern and Southern Africa. It is poorer than the performance in less-endowed African countries like Rwanda (5.0%); Kenya (5.3%); Zambia (6.2%); Tanzania (6.8%) and Malawi (7.2%) while it is much lower than what obtains in South Africa (7.5%) [8]. In addition, the total budget allocation to health for year 2011 was 8.03% which is against the 15% international benchmarks for developing countries[9]. This places Nigeria on the lists of countries that spent the lowest percentage on health. This poor budgetary allocation has inadvertently contributed to high maternal mortality and morbidity ratios evidenced in Nigeria. However in Oyo State where the study was conducted 19.2% of the 2011 budget was allocated to the health sector [10]. This is not unexpected as health in Nigeria is on the concurrent list where the central cannot make her own health priorities mandatory for the states.

It has therefore become imperative that creative and effective options for reducing maternal mortality rates must include the active participation of political leaders, who are the primary decision makers in the country and who are expected to promote maternal health and prevent maternal death in their community. The Local Government Legislators who are closest to the people naturally become the key target group in getting this done. Therefore, assessing what Local Government Legislators know about maternal mortality and an understanding of their perception is important for intervention that will promote effective decision making and participation in activities that will advance maternal health in line with the Millennium Development Goal 5. This study therefore set out to determine the perceptions of Local Government Legislators on maternal mortality and identified strategies for its reduction in Ibadan, Nigeria.

Methods

This study was a community-based descriptive and exploratory one. The scope of the study was delimited to awareness, perceptions and political strategies for reducing maternal mortality. It was conducted in Ibadan metropolis in the southwestern part of Nigeria. Ibadan was chosen because of its categorization into inner core, transitory and peripheral communities which represent various socio-economic status of Nigerian communities. The population of Ibadan as at 2007 was estimated to be 3,847,472 [11]. Politically and administratively, Ibadan municipality is divided into 11 [six rural – Oluyole, Ona-Ara, Egbeda, Ido, Akinyele, and Lagelu and five urban – Ibadan North, Ibadan North East, Ibadan North West, Ibadan South West and Ibadan South East] Local Government Areas (LGAs).

The study population for this study was the Local Government Legislators in all the eleven Local Government Council Areas in Ibadan, Oyo State. A two stage sampling was done to recruit participants for the study. The first stage was the purposive selection of all the 11 Chairmen of House Committee on Health in all the LGAs who participated in the in-depth interview. The criteria for inclusion were being the chairmen of the house committee on health in their LGAs and direct involvement in the design and monitoring of health programmes. The second stage consisted of the recruitment of all the 110 out of the 113 Councillors for Health in all the 11 LGAs who consented to be part of the survey.

Pretested in-depth interview guide and semi-structured questionnaire developed from literature review were adopted for the data collection. Eleven interviews were carried out among the chairmen of house committee on health and each interview lasted between 50 minutes to one hour.

Questionnaires were self-administered by the 110 consenting legislators. Data collected was checked for completeness and accuracy on a daily basis. A 30-point knowledge scale was used to measure the respondents' knowledge. A correct knowledge attracted one point while a wrong knowledge was zero. A score of ≤ 10 points was considered poor while scores between 11-20 points and 21-30 points were considered fair and good knowledge respectively. Perceptions of maternal mortality were determined using a 22-point perception scale. A positive perception attracted a score of 2 points while the score for a negative perception was zero. Scores of < 12 and ≥ 12 points were considered negative and positive perceptions respectively.

Descriptive statistics and Chi-Square were used for in analyzing the quantitative data. For the qualitative data, they were transcribed, sorted, categorized and analyzed thematically.

Ethical Considerations

Ethical approval for the study was obtained from the Oyo State Ministry of Health Ethical Review Committee (Reference Number AD18/479/145). Prior to entering the research sites, permission to carry out the study was obtained from relevant local government authorities concerned. The nature, purpose and process of the study were explained to the participants after which verbal informed consent were obtained. Participants were assured of confidentiality, privacy and anonymity of information provided. It was explained to the participants that the confidentiality of information shared during the interview would be guaranteed and treated as confidential and private. Necessary steps such as asking for no names and keeping

transcripts and data sources in a secure place were taken to ensure confidentiality. Participants were continuously reminded of their right to withdraw from the study at any time. After each session, the participants were consulted to ensure that study findings reflected their voices and perceptions.

Results

Demographic characteristics of the respondents

Table 1 shows the socio-demographic characteristics of respondents. Age of the respondents ranged from 20-55 years with mean age of 36.5 ± 7.2 years. Males constituted 90.0% of the surveyed population, 91.8% of all the respondents were married and out of these 24.5% were in polygynous marriage; 41.8% had Ordinary National Diploma (OND)/National Certificate on Education (NCE) and 69.1% have spent 3 years as legislators.

Prioritized health programmes in the local government and indicators for prioritization

Majority of the chairmen interviewed listed HIV/AIDS control, Immunization, sickle cell eradication, tuberculosis and leprosy control as well as the construction of maternity centre as the prioritized health programmes in the LGAs. Indicators of prioritization included external financial support for the programmes, priority by the state government and personal interest of the Local Government Chairman and the Legislators.

Awareness and Knowledge of maternal mortality

Forty three (39.1%) of the respondents were not aware of high maternal mortality in Nigeria and 60.9% were aware of women who died during pregnancy or childbirth in their constituency. Only 8.2% of respondents were aware of any form of policy relating to the reduction of maternal mortality and all mentioned the Millennium Development Goals as the policy they were aware of. These were corroborated by the in-depth interview where participants said *they were not aware that maternal mortality is high in Nigeria.*

The overall mean knowledge score of the respondents was 16.3±4.4 out of a maximum score of 30 points. The mean knowledge scores of respondents with first degree, OND/NCE and SSC were 19.9 ± 3.3, 16.2 ± 4.5 and 14.0 ± 3.1 points respectively (p=0.00) and mean knowledge score of male and female were 16.4 ± 4.4 and 15.8 ± 4.2 respectively (p=0.57). Twenty (18.2%) of the respondents had a poor knowledge, 65.5% had fair knowledge and the remaining 16.3% had a good knowledge. Majority (87.3%) of the respondents did not know the current maternal mortality ratio in Nigeria and 50.9% did not know that women are at risk of maternal mortality when they have malaria during pregnancy. Many (53.6%) of the respondents did not know that "traditional birth attendants" are not skilled attendant at birth and majority 65.5% did not see women empowerment as one of the ways of preventing maternal mortality (Table 2). Educational status of legislators was found to be significantly associated with knowledge of maternal mortality (p=0.000) (Table 4).

Perceived Causes of Maternal Mortality

From the in-depth interview, three themes emerged as the perceived causes of maternal mortality. The first theme centred on the

attitudes of health workers. One of the interviewee stated that

'*attitudes of many health-care workers in Nigeria is not encouraging that in fact they contribute to under-utilization of ANC services and thereby increasing maternal mortality'.*

Narrating a personal experience another interviewee said

"*when my wife sought maternal healthcare services in my Local Government clinic, she was treated in a hostile manner during her ANC and labour until the nurses discovered that she is my wife and started giving her better care"*.

The second theme is on political leadership. In their words

"*Government (political leaders) are the major cause of this maternal mortality problem because of their failure to provide necessary amenities that will make life more meaningful for the less privileged*".

Other issues related to this included corruption, inadequate funds management, imposition of budget on local government by the state government and inadequate budget implementation. In addition maternal health was not seen as a priority area. One interviewee reiterated that

'*he does not see maternal health as a sector that has problem in this country because if maternal health sector has a problem, international donors would have given it a funding priority and this would have encouraged more attention to it'.*

Another interviewee reiterated that

'there are some sectors that are even more important than health because if these sectors are not adequately funded, they tend to affect the health of the people. These sectors are agriculture, transportation and electricity'.

The third main theme was related to non-availability of trained personnel and up-to-date equipment. To buttress this, an interviewee said

"auxiliary nurses also contribute to this incidence of high mortality as they do not have necessary skills to take delivery, especially when there are complications and they are the major health workers in rural areas".

Local government clinics were reportedly closed at night and on weekends, and women who went into labour at these periods had no choice than to patronize traditional birth attendants.

The use of malfunctioning or outdated hospital equipment and problems with power supply are also commonplace in local government clinics".

Perceptions on Maternal Mortality

Table 3 shows the different perceptions held by the respondents. The perception of 78.2% was that abortion should not be legalized in spite of its association with MM when done illegally, 60.9% believed that legislators should not finance maternal health projects from their constituency allowance and 54.5% were of the perception that legislation on

compulsory use of antenatal care would not reduce MM. Mean perception score was 10.6 ± 4.6 and the mean perception scores of respondents with first degree, Ordinary National Diploma/National Certificate of Education and Secondary School Certificate were 13.4 ± 4.0, 9.9 ± 5.2 and 9.4 ± 3.5 respectively (p=0.00). Educational status was found influence perceptions on maternal mortality (p=0.014) (Table 4). The poor perception held by respondents was corroborated by the in-depth interview where it was emphasized that *"not supporting a bill to restrict the legal age of marriage because it will cause promiscuity (54.5%)*" and *"a woman using family planning is promiscuous (51.8%)*".

Suggested Strategies for Maternal Mortality Reduction

Table 5 presents the proffered strategies for building political will for the reduction of maternal mortality in Nigeria among the 110 LGLs surveyed. The in-depth interview participants in addition to these opined that the

'promotion of girl child education will have a significant impact in reducing maternal mortality', '*night and weekend duties should be made compulsory for midwives in local government clinics so that pregnant women can have access to them at any time the need may arise*'.

These they said were very necessary especially for the people living in the rural areas where Local Government clinics are the only available health service. Others included

'constitution amendment that will give local government leaders autonomy to write their budget and prioritize a problem themselves'

and

'the need for a law that will obligate all levels of government to ensure that all health facilities are equipped to provide emergency obstetric care',

involvement of party leaders in maternal health programme, good human relationship between the medical officer of health and political leaders, and involvement of royal fathers in maternal health programmes.

Discussion

More than a quarter of the respondents were not aware that maternal mortality is high in Nigeria. This is an indication that there is no adequate sensitization and advocacy for legislators on maternal mortality at the local government. This finding is similar to the study by Lawoyin et al [12] where respondents only 47.8% of their respondents knew someone who had died a maternal death and that of Sychareun et al[13] which documented poor knowledge among policy makers as well as inconsistent attitudes. This is however at variance with the findings of Zubairu et al [14] who documented a fairly good knowledge of maternal mortality among community leaders studied.

A large proportion of the respondents not knowing the current maternal mortality ratio in Nigeria is consistent with the findings of Okonofua et al [15] where only 2 out of 49 policymakers interviewed correctly reported the current maternal mortality statistics. The finding that respondents believed that HIV/AIDS is one of the direct causes of maternal mortality is in line with the estimate of WHO[3] that there were 42 000 deaths due to

HIV/AIDS among pregnant about half of which were assumed to be maternal. The contribution of HIV/AIDS was reportedly highest in sub-Saharan Africa where 9% of all maternal deaths were due to HIV/AIDS.

Half of the respondents' believed that women are not at risk when they have malaria during pregnancy. This showed that some people still do not see malaria as a serious health problem that needs immediate attention especially for the pregnant women. When this is the case, policies for preventing malaria in pregnancy like promoting the use of treated nets and intermittent presumptive treatment of malaria in pregnancy may receive adequate support without external push from donors. Many of the legislators did not see post abortion care as one of the ways to prevent maternal death. This finding is similar to the study by Shamshiri et al [16] in Iran where a strong disagreement was observed towards abortion among policymakers studied.

The finding that many of the legislators studied would want maternal health services to be provided at grass root level to create more access to the services, free medical services for pregnant women and enforcement of the implementation of existing policies on maternal health is a positive indicator that if legislators are sufficiently motivated, there would be a paradigm shift in the kind of policies to be made, the way resources are allocated to maternal health and in ensuring the compliance to policies enacted. This would also override the perception of not funding maternal health programmes from their constituency allowance.

The perception that women who use family planning methods are promiscuous is a source for concern as this will compromise the gain to be derived from its use which is reduction in maternal mortality. The consequences of this low usage of family planning methods include a high occurrence of unplanned pregnancies which therefore increase the likelihood of exposure to unsafe abortion.

Majority of the respondents disagreed that abortion should be legalized in spite of its association with maternal mortality. This corresponds with the findings by Okonofua et al [15] where many of the policymakers thought that liberalization would increase the number of abortions. They opined that abortion should not be legal under any circumstances and a significant proportion suggested that the solution to unsafe abortion is not to legalize the procedure but to provide sexuality education. Unsafe abortions are a major cause of maternal death in Nigeria. Both the human rights committee and the CEDAW committee have expressed concern and issued recommendations about it with regards to Nigeria calling her attention to the Maputo protocol to which she is a signatory [17].

The findings of this study have several implications for planning, development and implementation of sensitization and advocacy programme for legislators in Ibadan and Nigeria as a whole. It is essential to provide legislators with current evidence based information on maternal mortality to increase their knowledge of the situation and to encourage them to develop relevant, scientifically appropriate solutions to the problem. Message should focus on providing accurate statistics as well as graphic narratives of the illustrative cases, and on explaining how the problem can be tackled using the success stories of other countries. No formal forum exists for legislators in Nigeria to discuss matters related to women's health as is the case in Ghana[18] where there exists a caucus that meets regularly to share information on reproductive health issues. Such an avenue for regular sharing appropriate of information with policymakers on maternal health, especially issues related to maternal mortality is needed in Nigeria.

Conclusion

This study found that many of the legislators were not aware that maternal mortality is high in Nigeria; negative perceptions existed among them as well as inadequate knowledge of causes and prevention of maternal mortality. Advocacy and the integration of their suggestions into control efforts have potential for ameliorating the problem.

List of abbreviations

MM – Maternal mortality
LGLs – Local Government Legislators
ANC – Antenatal Care
LGA – Local Government Area
CEDAW – Convention on the Elimination of All Forms of Discrimination against Women
GDP – Gross Domestic Product
OND – Ordinary National Diploma
HND – Higher National Diploma
BSc – Bachelors degree

Competing interest

The authors declare that they have no competing interest

Authors' contributions

All authors have contributed to this study in ways consistent with ICJME authorship criteria. All the authors have read and approved the final version of this manuscript

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Conflict of Interest: None to declare

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Table 1: Socio-demographic characteristics of respondents

Socio demographic variables	Frequency	Percentage %
Age (years)		
20-29	18	16.4
30-39	59	53.6
40-49	28	25.5
50-59	5	4.5
Total	**110**	**100.0**
Sex:		
Male	99	90.0
Female	11	10.0
Total	**110**	**100.0**
Marital status:		
Single	9	8.2
Married	101	91.8
Total	**110**	**100.0**
Type of Marriage:		
Monogamous	74	67.3
Polygynous	27	24.5
Total	**110**	**100.0**
Religious practice:		
Christianity	38	34.5
Islam	72	65.5
Total	**110**	**100.0**
Educational Status:		
Secondary Education	38	34.5
OND/NCE	46	41.8
HND/Bachelors degree	26	23.6
Total	**110**	**100.0**
Years as a legislator:		
Two	23	20.9
Three	76	69.1
Six	11	10.0
Total	**110**	**100.0**

Table 2: Awareness and Knowledge of Maternal Mortality among Respondents

Knowledge of maternal mortality	True	False
Direct causes of pregnancy-related death		
a. Bleeding*	96 (87.3%)	14 (12.7%)
b. Unsafe abortion*	74 (67.3%)	36 (32.7%)
c. HIV/AIDS*	76 (69.1%)	34 (30.9%)
d. Headache	31 (28.2%)	79 (71.8%)
e. Infection*	61 (55.5%)	49 (44.5%)
f. Rheumatism	66 (60.0%)	44 (40.0%)
g. Cancer	84 (76.4%)	26 (23.6%)
h. Hypertension*	81 (73.6%)	29 (26.4%)
One of the Millennium Development Goals calls for the reduction of maternal mortality ratio by three-quarters, by 2015, from the 1990 level.	76 (69.1%)*	34 (30.9%)
The current maternal mortality ratio in Nigeria is 350 deaths per 100,000 live births.	96 (87.3%)	14 (12.7%)*
Most maternal deaths occur during:		
a. Antenatal period	68 (61.8%)	42 (38.2%)
b. Labour*	103 (93.6%)	7 (6.4%)
c. Birth*	76 (69.1%)	34 (30.9%)
d. Breast feeding	50 (45.5%)	60 (54.5%)
Women are at risk of maternal death when they have malaria during pregnancy.	54 (49.1%)*	56 (50.9%)
A "skilled attendant" at birth may include all of the following:		
a. A nurse/midwife*	106 (96.4%)	4 (3.6%)
b. A doctor*	106 (96.4%)	4 (3.6%)
c. A trained traditional birth attendant	59 (53.6%)	51 (46.4%)
d. Herbalist	26 (23.6%)	84 (76.4%)
e. Auxiliary nurse	38 (34.5%)	72 (65.5%)
Prevention of maternal mortality.		
a. Antenatal care*	106 (96.4%)	4 (3.6%)
b. Tuberculosis services	75 (68.2%)	35 (31.8%)
c. Family planning*	82 (74.5%)	28 (25.5%)
d. Post abortion care*	55 (50.0%)	55 (50.0%)
e. Cancer screening	87 (79.1%)	23 (20.9%)
f. HIV counseling and testing*	101 (91.8%)	9 (8.2%)
g. Supervised delivery care*	98 (89.1%)	12 (10.9%)
h. Breast feeding	49 (44.5%)	61 (55.5%)
i. Public health education*	75 (68.2%)	35 (31.8%)
j. Empowerment of women*	38 (34.5%)	72 (65.5%)

*Correct responses

Table 3: Respondents' perceptions on maternal mortality

Statement	Agree	Disagree	Not sure
Legislation on compulsory use of antenatal care services will not reduce maternal mortality	60 54.5%	38 34.5%	12 10.9%
Women should be encouraged to use family planning to reduce maternal mortality	64 58.2%	31 28.2%	15 13.6%
Maternal mortality is not a very serious problem that needs immediate attention.	17 15.5%	67 60.9%	26 23.6%
Appointment of more doctors by local governments is costly and will not reduce maternal death	42 38.2%	58 52.7%	10 9.1%
Legislators' lack of knowledge on the existing policies on maternal health contributes to maternal mortality.	43 39.0%	50 45.5%	17 15.5%
Traditional birth attendants are contributing to maternal death by providing substandard care	71 64.5%	21 19.1%	18 16.4%
The number of pregnancies a woman had would not affect her health	28 25.5%	50 45.5%	32 29.1%
Maternal mortality is not a threat to Nigeria economy	33 30.0%	42 38.2%	35 31.8%
Maternal health programmes should be personally financed by the legislators from their constituency allowance.	42 36.2%	67 57.8%	7 6.0%
Inadequate monitoring of maternal health programmes by the legislators contributes to maternal mortality.	41 37.3%	62 56.4%	7 6.4%
Abortion should be legalized in spite of its association with maternal mortality.	36 32.7%	67 60.9%	7 6.4%

Table 4: Respondents' Demographic Characteristics influencing knowledge and perceptions of maternal mortality

Demographic variables	Educational status			X^2	P values
	Secondary	OND/NCE	HND/BSc		
Educational status					
Poor	6	11	3		
Fair	32	28	12	22.2	0.000
Good	0	7	11		
Perceptions					
Positive	12	16	17	8.5	0.014
Negative	26	30	9		

Table 5: Suggested Strategies for Improving Political Will for Maternal Mortality Reduction

Suggested Strategies	**No**	**%**
Regular training workshop for political leaders on maternal health	110	100
Good human relationship between the medical officer of health and political leaders	107	97.3
Awareness by international agencies and provision of financial and technical resources.	106	96.4
Involvement of party leaders to give maternal health a priority among party programmes.	97	88.2
Providing credible evidence to show political leaders a problem exist.	96	87.3
Involvement of royal fathers to speak with political leaders to give maternal health a priority.	88	80.0
Encouraging Women pressure group	69	62.7
Advocacy by community leaders to elected leaders	53	48.2

*Multiple responses