

# **Factors associated with maternal health problems and strategies for promoting safe motherhood amongst pregnant married women in Kanke LGA, Plateau State, Nigeria**

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## **ABSTRACT**

This study determined the factors associated with maternal health problems and strategies for promoting safe motherhood amongst pregnant married women in Kanke LGA. Survey research design was employed for the study. The population of the study consisted of pregnant married women. Questionnaire was the instrument used for data collection. The findings of the study revealed that factors associated with maternal health problems of semi-urban and rural pregnant married women were: pelvic inflammatory diseases, cultural beliefs and traditional practices, maternal mortality and vesico-vaginal fistulae. The factors associated with maternal health problems among age 15 – 30 and 31+ pregnant married women were: poverty, hypertension in pregnancy and prolonged labour. The perceived strategies for promoting safe motherhood were: improving the skills of community health workers, screening of high risk pregnant mothers, even distribution of health care personnel and elimination of cultural beliefs and traditional practices. There was significant difference in the factors associated with maternal health problems amongst semi-urban and rural pregnant married women. There was significant difference in the perceived strategies for promoting safe motherhood between semi-urban and rural pregnant married women. Based on the findings of the study, recommendations on how to curtail the maternal health problems of pregnant women were proffered.

**Keywords:** maternal health problems; safe motherhood; poverty; health; Nigeria

## **1. INTRODUCTION**

Every minute of everyday some where in the world and most often in a developing country, a woman dies from complications related-to-pregnancy. An Expanded Partnership for Safe Motherhood and New Health (2004) opines that a woman's death is more than a personal tragedy; it represents an enormous cost to her nation, her community and family. Any social and economic investment that has been made in her life is lost. Her family loses her love, nurturing and productivity both inside and outside the home.

As the years pass by, maternal health problems and progressive deterioration of maternal health among women has resulted to maternal mortality and other maternal health problems such as still birth, eclampsia, pelvic inflammatory diseases, vesico-vaginal fistulae as well as cephalo-pelvic disproportion. Such maternal health problems are detrimental to safe

motherhood. Kwast (1991) asserts that unless vigorous action was taken, pregnancy-related-factors was going to kill 7.5 million women between 1991 and the year 2000. Kwast further stresses that most women in pregnancy and childbirth are poor and live in remote and rural areas or city slums. He further explains that in developing countries, there are 200 times more maternal deaths per 100,000 live births than in developed countries and that women in Africa have a life time risk of dying from pregnancy-related-causes of about 1 in 20 whereas the corresponding risk for women in developed countries is only 1 in 200 women.

It appears that affordable measures can significantly reduce the health risks that women face when they become pregnant. An Expanded Partnership for Safe Motherhood and New Born Health (2004) reports that most maternal deaths and complications during pregnancy could be prevented if women had access to appropriate health care during pregnancy and childbirth; meaning ensuring that all women receive the care they need to be safe and healthy throughout pregnancy and childbirth.

To promote safe motherhood, strategies for promoting maternal health should be put in place. In order to achieve this, integrated approach maternity care at all levels of health care, physical exercises, basic midwifery education, effective health care services, adequate nutrition, elimination of cultural and traditional practices that are inimical to safe motherhood and public health education should be adopted and given serious attention.

### **Purpose of the Study**

The purpose of this study was to investigate the factors associated with maternal health problems and strategies for promoting safe motherhood among pregnant married women in Kanke L.G.A. Specifically therefore, the objectives of this study were:

1. To find out the factors associated with maternal health problems between semi-urban and rural pregnant married women in Kanke LGA.
2. To ascertain the factors associated with maternal health problems between age 15 – 30 and 31+ pregnant married women in Kanke LGA
3. To investigate the strategies adopted for promoting safe motherhood between semi-urban and rural pregnant married women in Kanke LGA.

### **Research Questions**

In order to guide the study, the following research questions were posed:

1. What are the factors associated with maternal health problems between semi-urban and rural pregnant women in Kanke LGA?
2. Are there factors associated with maternal health problems between age 15 – 30 and 31+ pregnant married women in Kanke LGA?
3. What are the perceived strategies adopted for promoting safe motherhood between semi-urban and rural pregnant married women in Kanke LGA?

### **Hypotheses**

The following null hypotheses were formulated and tested at .05 level of significance:

1. There is no statistical significant difference in the factors associated with maternal health problems between semi-urban and rural pregnant married women in Kanke LGA.
2. There is no statistical significant difference in the factors associated with maternal health problems between age 15 – 30 and 31+ pregnant married women in Kanke LGA.

3. There is no statistical significant difference in the perceived strategies adopted for promoting safe motherhood between age 15 – 30 and 31+ pregnant married women in Kanke LGA.

## 2. METHODS

In order to achieve the purpose of this study, the survey research design was employed. Data for the study were gathered at a particular point in time.

The population for the study consisted of only pregnant married women in Kanke LGA. The sample of the study consisted of 463 pregnant married women in Kanke LGA. The random sampling technique of balloting with replacement was adopted for the study.

The instrument for data collection was a 47 item factors associated with maternal health problems questionnaire (FAMHPQ). The questionnaire was categorized into three sections: A, B and C. Section A contained three socio-demographic variables age, level of education and location. Section B elicited information on factors associated with maternal health problems of pregnant married women. Section C provided information on strategies for promoting safe motherhood of pregnant married women.

Face validity of the instrument was obtained through the judgement of three experts drawn from the department of Health and Physical Education, Federal College of Education, Pankshin. Based on the inputs, corrections and suggestions made by the experts, the final copy of the questionnaire was produced. Reliability of the instrument was determined through the outcome of a pretest using split-half method. A reliability co-efficient index of .71 was obtained. Thus, with .71 co-efficient indexes, the instrument was considered appropriate for the present study.

The researcher and three trained research assistants went to clinics, primary health centres and hospitals on ante-natal days and distributed the questionnaire forms to pregnant married women residing in Kanke LGA. The procedure for the filling of the questionnaire was explained to the respondents. Thereafter, the researcher and the three trained research assistants collected back the copies of the filled questionnaire forms on the spot.

The data generated for the study were analysed using frequencies and percentage to answer the research questions. On the other hand, chi-square statistics was employed to test the null hypotheses at .05 level of significant. Hypotheses were rejected where the calculated chi-square value is equal to or greater than the table chi-square value. However, the hypotheses were accepted where the table chi-square values are greater than the calculated chi-square values.

## 3. RESULTS

The findings were based on analyses of responses from 463 respondents. In presenting the findings relevant to the study, the findings are presented in such a way that answers to the research questions are provided first using percentages. This is followed by summaries of chi-square analysis.

**Table 1.** Factors Associated with Maternal Health Problems of Semi-Urban and Rural Pregnant Married Women in Kanke LGA.

		n = 463							
S/n	Items	Semi-urban				Rural			
		Yes		No		Yes		No	
		f	%	f	%	f	%	f	%
1	Prolonged labour	180	38.87	44	9.50	170	36.71	69	14.90
2	Maternal mortality	187	40.38	37	7.99	142	30.66	97	20.95
3	Eclampsia / pre-eclampsia	189	40.82	35	7.55	130	28.07	109	23.54
4	Haemorrhage	47	10.15	177	38.12	142	30.67	97	20.95
5	Hypertension in pregnancy	177	38.29	47	10.14	146	31.53	93	20.08
6	Poverty	172	37.14	52	11.23	177	38.22	62	13.39
7	Under-utilization of maternal services	133	7.12	191	41.23	176	38.01	63	13.60
8	Cultural beliefs and practices	189	40.82	35	7.55	175	38.79	64	13.83
9	Obstructed labour	187	40.38	37	7.99	150	32.39	89	19.22
10	Vesico-vaginal fistulae	185	39.95	39	8.42	146	31.53	93	20.08
11	Miscarriage/abortion	49	10.58	191	41.23	142	30.67	97	20.95
12	Pelvic Inflammatory diseases	190	41.03	34	7.34	152	32.83	87	18.79
13	Ectopic pregnancy	39	8.42	185	39.95	141	25.05	98	21.16
	<b>Grand %</b>		<b>30.30</b>		<b>18.32</b>		<b>32.70</b>		<b>18.57</b>

Table 1 reveals that the factors commonly associated with maternal health problems of semi-urban and rural pregnant married women in Kanke LGA were: pelvic inflammatory diseases (semi-urban = 41.03% > rural = 32.83%), cultural beliefs and practices (semi-urban = 40.82% > rural = 38.79%), obstructed labour (semi-urban = 40.38% > rural = 32.39%), maternal mortality (semi-urban = 40.38% > rural = 30.66%), eclampsia / pre-eclampsia (semi-urban = 40.82% > rural = 28.07%), vesico-vaginal fistulae (semi-urban = 39.95% > rural = 31.53%) and prolonged labour (semi-urban = 38.87% > rural = 36.71%).

On the other hand, the least factors that are associated with maternal health problems were miscarriage (semi-urban = 10.58% < rural = 20.95%), ectopic pregnancy (semi-urban = 8.42% < rural = 21.16%) and hemorrhage (semi-urban = 10.15% < rural = 20.95%). The overall result show that there are more maternal health problems amongst rural than semi-urban pregnant married women (semi-urban = 30.30% < rural = 32.70%).

The results in Table 2 indicate that the factors associated with maternal health problems of age 15 – 30 and 31+ pregnant married women were: poverty (age 15 – 30 = 49.24% > age 31+ = 23.54%), cultural beliefs and practices (age 15 – 30 = 48.16% > age 31+ = 23.32%), prolonged labour (age 15 – 30 = 46.86% > age 31+ = 22.24%), hypertension in pregnancy (age 15 – 30 = 46.22% > age 31+ = 26.78%), obstructed labour (age 15 – 30 = 44.49% > age 31+ = 18.57%) and maternal mortality (age 15 – 30 = 41.25% > age 31+ = 20.73%). On the contrary, the least factors associated with maternal health problems of age 15 – 30 and 31+ were abortion/miscarriage (age 15 – 30 = 22.03% > age 31+ = 20.51%), under utilization of maternal services (age 15 – 30 = 22.03% < age 31+ = 23.97%) and pelvic inflammatory diseases (age 15 – 30 = 22.89% > age 31+ = 20.95%). The overall results show that there are more maternal health problems between age 15 – 30 than age 31+ pregnant married women (age 15 – 30 = 36.14% > age 31+ = 21.42%).

**Table 2.** Factors Associated with Maternal Health Problems of Age 15 – 30 and 31+ Pregnant Married Women in Kanke LGA.

S/n	Items	Age 15 – 30				Age 31+			
		Yes		No		Yes		No	
		f	%	f	%	f	%	f	%
1	Prolonged labour	217	46.86	101	21.81	103	22.24	42	9.07
2	Maternal mortality	191	41.25	127	27.43	96	20.73	49	10.58
3	Eclampsia / pre-eclampsia	200	43.19	118	25.48	98	21.16	47	10.15
4	Hemorrhage	125	26.99	193	41.99	101	21.81	44	9.50
5	Hypertension in pregnancy	214	46.22	104	22.46	124	26.78	21	4.53
6	Poverty	228	49.24	90	19.35	109	23.54	36	7.77
7	Under-utilization of maternal services	102	22.03	216	46.65	111	23.97	34	7.34
8	Cultural beliefs and practices	223	48.16	95	20.43	108	23.32	37	7.99
9	Obstructed labour	206	44.49	112	24.19	86	18.57	59	12.74
10	Vesico-vaginal fistulae	106	22.89	212	45.78	83	17.92	62	13.39
11	Miscarriage/abortion	102	22.03	216	46.65	95	20.51	50	10.79
12	Pelvic Inflammatory diseases	106	22.89	212	45.78	97	20.95	48	10.36
13	Ectopic pregnancy	181	33.69	137	29.59	79	17.06	66	14.25
	<b>Overall %</b>		<b>36.14</b>		<b>32.12</b>		<b>21.42</b>		<b>9.88</b>

**Table 3.** Strategies for Promoting Safe Motherhood between Semi-urban and Rural Pregnant Married Women in Kanke LGA.

S/n	Items	Semi-urban				Rural			
		Yes		No		Yes		No	
		f	%	f	%	f	%	f	%
1	Improving the skills of community health workers	173	37.36	51	11.01	202	43.62	37	7.99
2	Screening of high risk pregnant mothers	174	37.58	50	10.79	196	42.33	43	9.28
3	Developing an alarm and transport system to serve as a link between community and referral care	145	31.31	79	17.06	180	38.87	59	12.74
4	Maternal health care be geared towards preventive approach rather than curative	142	30.67	82	17.71	190	41.03	49	10.58
5	Even distribution of health care personnels	170	36.71	54	11.66	192	41.46	47	10.15
6	Provision of effective and accessible maternal health services	171	36.93	53	11.44	195	42.11	44	9.53
7	Provision of basic midwifery education	169	36.60	55	11.87	183	39.52	56	12.09
8	Provision of adequate nutrition	172	37.14	52	11.23	185	39.95	54	11.66
9	Elimination of cultural beliefs and traditional practices	177	38.22	47	10.16	182	39.30	57	12.31
10	Public health education of pregnant women	168	36.28	56	12.09	195	42.11	44	9.50
11	Delay of marriage and first birth	171	36.93	53	11.44	131	28.29	108	23.32
	<b>Grand %</b>		<b>35.97</b>		<b>12.40</b>		<b>39.87</b>		<b>11.74</b>

Table 3 above shows that the perceived strategies that can be adopted to promote safe motherhood were: improving the skills of community health workers (semi-urban = 37.36% < rural = 43.62%), screening of high risk pregnant mothers (semi-urban = 37.58% < rural = 42.33%), provision of effective and accessible maternal health services (semi-urban = 36.93% < rural = 42.11%), provision of public health education to pregnant women (semi-urban = 36.28% < rural = 42.11%), even distribution of health care personnel (semi-urban = 36.71% < rural = 41.46%), maternal health care be geared towards preventive approach rather than curative (semi-urban = 36.71% < rural = 41.46%) and elimination of cultural beliefs and traditional practices (semi-urban = 38.22% < rural = 39.30%). The overall result indicate that rural women perceived higher strategies for promoting safe motherhood than the semi-urban pregnant married women (semi-urban = 35.97% < rural = 39.87%).

**Table 4.** Summary of Chi-square Values Verifying the Difference in Factors Associated with Maternal Health Problems Among Semi-urban and Rural Pregnant Married Women in Kanke LGA.

Variables	Cal.x <sup>2</sup>	Tab.x <sup>2</sup>	Level of significance	df	Decision
Prolonged labour	5.31	3.84	.05	1	Rejected
Maternal mortality	33.41	3.84	.05	1	Rejected
Eclampsia / pre eclampsia	187.78	3.84	.05	1	Rejected
Hemorrhage	70.67	3.84	.05	1	Rejected
Hypertension in pregnancy	17.58	3.84	.05	1	Rejected
Poverty	0.43	3.84	.05	1	Accepted
Under-utilization of maternal services	162.03	3.84	.05	1	Rejected
Cultural beliefs / practices	34.7	3.84	.05	1	Rejected
Obstructed labour	25.29	3.84	.05	1	Rejected
Vesico-vaginal fistulae	87.52	3.84	.05	1	Rejected
Abortion / miscarriage	67.22	3.84	.05	1	Rejected
Pelvic inflammatory diseases	26.95	3.84	.05	1	Rejected
Ectopic pregnancy	87.06	3.84	.05	1	Rejected
<b>Grand x<sup>2</sup> =</b>	<b>61.99</b>	<b>3.84</b>	<b>.05</b>	<b>1</b>	<b>Rejected</b>

Table 4 above shows that there was statistical significant differences in the factors associated with maternal health problems among semi-urban and rural pregnant women in prolonged labour, maternal mortality, eclampsia/pre-eclampsia, haemorrhage, hypertension in pregnancy, under-utilization of maternal services, cultural beliefs and practices, obstructed labour, vesico-vaginal fistulae, abortion/miscarriage, pelvic inflammatory diseases and ectopic pregnancy, but there was no significant difference in the factors associated with maternal health problems among semi-urban and rural pregnant married women in poverty. On the other hand, the grand chi-square result in table 4 further reveals that there was statistical significant difference in the factors associated with maternal health problems of semi-urban and rural pregnant married women (Cal.x<sup>2</sup> = 61.99% > Tab.x<sup>2</sup> = 3.84, p > .05).

**Table 5.** Summary of Chi-square Values Verifying the Difference in Factors Associated with Maternal Health Problems Among Age 15 – 30 and 31+ Pregnant Married Women.

Variables	Cal.x <sup>2</sup>	Tab.x <sup>2</sup>	Level of significance	df	Decision
Prolonged labour	0.5	3.84	.05	1	Accepted
Maternal mortality	1.56	3.84	.05	1	Accepted
Eclampsia / pre eclampsia	0.94	3.84	.05	1	Accepted
Hemorrhage	36.7	3.84	.05	1	Rejected
Hypertension in pregnancy	16.75	3.84	.05	1	Rejected
Poverty	0.68	3.84	.05	1	Accepted
Under-utilization of maternal services	79.29	3.84	.05	1	Rejected
Cultural beliefs / practices	0.91	3.84	.05	1	Accepted
Obstructed labour	1.26	3.84	.05	1	Accepted
Vesico-vaginal fistulae	23.54	3.84	.05	1	Rejected
Abortion / miscarriage	45.35	3.84	.05	1	Rejected
Pelvic inflammatory diseases	45.54	3.84	.05	1	Rejected
Ectopic pregnancy	0.92	3.84	.05	1	Accepted
<b>Grand x<sup>2</sup> =</b>	<b>19.53</b>	<b>3.84</b>	<b>.05</b>	<b>1</b>	<b>Rejected</b>

Table 5 above indicates that there was no statistical significant difference in the following factors that are associated with maternal health problems among age 15 – 30 and 31+ pregnant married women: prolonged labour, maternal mortality, eclampsia/pre-eclampsia, poverty, cultural beliefs/practices, obstructed labour, and ectopic pregnancy. On the other hand, the table shows that there were statistical significant differences in the following factors that are associated with maternal health problems among age 15–30 and 31+ pregnant married women: haemorrhage, hypertension in pregnancy, under-utilization of maternal health services, vesico-vaginal fistulae, abortion/miscarriage and pelvic inflammatory diseases. The overall chi-square result reveals that there was statistical significant differences in the factors associated with maternal health problems between age 15 – 30 and 31+ pregnant married women in Kanke LGA (Cal.x<sup>2</sup> = 19.53 > Tab.x<sup>2</sup> = 3.84, P > .05).

**Table 6.** Summary of Chi-square Values Verifying the Difference in the Perceived Strategies for Promoting Safe Motherhood Between Semi-Urban and Rural Pregnant Married Women in Kanke LGA.

Variables	Cal.x <sup>2</sup>	Tab.x <sup>2</sup>	Level of significance	df	Decision
Improving the skills of community health workers	3.97	3.84	.05	1	Rejected
Screening of high risk pregnant mothers	1.34	3.84	.05	1	Accepted
Developing an alarm and transport system to serve as a link between community and referral care	6.18	3.84	.05	1	Rejected
Preventive approach rather than curative	14.99	3.84	.05	1	Rejected
Even distribution of health care personnel	1.33	3.84	.05	1	Accepted

Provision of effective and accessible health services	1.9	3.84	.05	1	Accepted
Provision of basic midwifery education	0.05	3.84	.05	1	Accepted
Provision of adequate nutrition	0.00	3.84	.05	1	Accepted
Elimination of cultural beliefs / practices	0.52	3.84	.05	1	Accepted
Public health education of pregnant women	2.98	3.84	.05	1	Accepted
Delay of marriage and first birth	23.6	3.84	.05	1	Rejected
<b>Grand <math>\chi^2 =</math></b>	<b>5.16</b>	<b>3.84</b>	<b>.05</b>	<b>1</b>	<b>Rejected</b>

The results in Table 6 indicate that there was no statistical significant difference in the perception of the following strategies for promoting safe motherhood between semi-urban and rural pregnant women: Screening of high risk pregnant mothers, even distribution of health care personnel, provision of basic midwifery education, provision of adequate education, elimination of cultural beliefs / traditional practices and public health education of pregnant women. On the other hand, the table reveals that there were statistical significant differences in the perception of the following strategies for promoting safe motherhood between semi-urban and rural pregnant women: Improving the skills of community health workers, developing an alarm and transport system to serve as a link between community and referral care, and delay of marriage and childbirth. However, the overall chi-square result shows that there was statistical significant difference in the perceived strategies for promoting safe motherhood between semi-urban and rural pregnant women ( $\text{Cal.}\chi^2 = 5.16 > \text{Tab.}\chi^2 = 3.84, P > .05$ ).

#### 4. DISCUSSION

The finding that pelvic inflammatory disease is associated with maternal health problems of semi-urban and rural pregnant women is heartwarming. This finding corroborates the view of Arkutu (1995) who asserts that any infection of the genital organ of a woman whether following abortion or sexually transmitted diseases can spread to other pelvic organs unless it is treated promptly and effectively. He further reports that pelvic inflammatory diseases often result in damage and scarring of fallopian tubes of women.

The finding that maternal mortality is a factor associated with maternal health problems of semi-urban and rural pregnant married women is not surprising. This is because quite a number of women have died during childbirth. This finding lends credence to the findings of Mathews, Ward, Akpaidiem Williams and Umoh (1995) whose study reveal the maternal death rate in South-East of Nigeria was 1,450 per 100,000 in 1991. They further report that the reasons attributed to high rate of maternal mortality were similar to those reported elsewhere: poverty, isolation, underutilization of existing professional services, lack of resources, cultural beliefs, and traditional practices of some ethnic groups. The major problems associated with maternal mortality as Mathews *et al* found in their study was obstructed labour which often lead to ruptured uterus, vesico-vaginal fistulae, haemorrhage, severe complications of hypertension in pregnancy, infection, and unsafe abortion. Chiwuzie, Braimoh, Unuigbo and Olumeko (1995) further support this finding as they report that globally, every year over half

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a million (500,000) women die in pregnancy and childbirth, nearly all of them in developing world.

The finding revealed that cultural beliefs and traditional practices are some of the factors associated with maternal health problems among age 15 – 30 and 31+ pregnant women. The finding agrees with that of Jatau (2000) who found that food taboos, genital mutilation and early marriage are beliefs and practices that some cultures hold onto. This finding further agrees with that of Kosolo (2000) whose results of study showed that traditional beliefs greatly influenced the attitudes and practices that surrounded pregnancy, childbirth and immediate post-natal period.

The finding of this study also showed that improving the skills of community health workers is one of the critical key strategies for promoting safe motherhood. This finding is in line with that of Jatau (2000) who found that one of the greatest strategies for promoting safe motherhood is by improving the skills of community health workers and midwifery through education. To reduce maternal health problems, each community health worker including the midwives should be appropriately trained, equipped and supported. Kwast (1991) opines that the education of midwife and community health workers would encourage them to adopt the right outlook for their roles.

The finding further revealed that public health education is one of the strategies for promoting safe motherhood. Health education serves as one of the strongest strategies for promoting maternal health of women. Roberts' (1996) view agrees with this finding as he states that women need to be educated on vital issues relating to maternal health as this may help them to understand themselves as women and how to live healthy. Knowledge of safe motherhood gained as a result of health education can also help women to propagate the right type of attitude and correct information concerning maternal health to the next generation.

The finding of the study found that elimination of cultural beliefs and traditional practices is a strategy for promoting safe motherhood of pregnant married women. This finding corroborates that of Kasolo (2000) who found that one for the strategies of promoting safe motherhood of pregnant married women is the elimination of traditional practices. He further found that there are many traditional practices surrounding childbirth and that there are also many myths attached to traditional practices that leave no woman room to think positively about their health. Kasoko's findings further reveal that in some cultures men and women strongly believed in local herbs which pregnant women bath in, drink or sit in during pregnancy, childbirth and immediately after birth. These herbs according to their beliefs have been found useful. They are used by women in addition to attending ante-natal care in health facility. Finally, the finding of Kasoko revealed that because of the beliefs that women hold, they are shy beings, who do not want medical personnel to look at their genitals during examinations. They love privacy and comfort, with the traditional attendants they are used to in the community. Such a condition is offered to them when they deliver in the community.

The finding that there was statistical significant difference on the factors associated with maternal health problems among semi-urban and rural pregnant married women was expected and not surprising because most of the medical health care personnel prefer working in urban and semi-urban areas where they can easily access social amenities to working in rural areas where social amenities are not available.

## 5. CONCLUSIONS AND RECOMMENDATIONS

Based on the findings of the study, the following conclusions were drawn:

1. The factors associated with the maternal health problems of semi-urban and rural married pregnant women were: pelvic inflammatory diseases (semi-urban = 41.03% > rural = 32.83%), cultural beliefs and traditional practices (semi-urban = 40.82% > rural = 38.79%), obstructed labour (semi-urban = 40.38% > rural = 32.39%), maternal mortality (semi-urban = 40.38% > rural = 30.66%) and vesico-vaginal fistulae (semi-urban = 39.95% > rural = 31.53%).
2. The factors associated with maternal health problems of age 15 – 30 and 31+ pregnant married women were: poverty (age 15 – 30 = 49.24% > age 31+ = 23.54%), prolonged labour (age 15 – 30 = 46.86% > age 31+ = 22.24%), and hypertension in pregnancy (age 15 – 30 = 44.49% > age 31+ = 18.57%).
3. The perceived strategies for promoting safe motherhood amongst semi-urban and rural pregnant married women were: improving the skills of community health workers (semi-urban = 37.36% < rural = 43.62%), screening of high risk pregnant mothers (semi-urban = 37.58% < rural = 42.33%), provision of effective and accessible maternal health services (semi-urban = 36.93% < rural = 42.11%), maternal health care be geared towards preventive approach rather than curative (semi-urban = 36.71% < rural = 41.46%), and elimination of cultural beliefs and traditional practices (semi-urban = 38.22% < rural = 39.30%).
4. There was statistical significant difference in the factors associated with maternal health problems amongst semi-urban and rural pregnant married women in Kanke LGA (Cal.x<sup>2s</sup> = 61.99 > Tab.x<sup>2</sup> = 3.84, P > .05).
5. There was statistical significant difference in the factors associated with maternal health problems between age 15 – 30 and 31+ pregnant married women (Cal.x<sup>2</sup> = 19.53% > Tab.x<sup>2</sup> = 3.84, P > .05).
6. There was statistical significant difference in the perceived strategies for promoting safe motherhood between semi-urban and rural pregnant married women (Cal.x<sup>2</sup> = 5.16 > Tab.x<sup>2</sup> = 3.84, P > .05).

Based on the findings of the study the following recommendations are proffered:

1. Cultural beliefs and traditional practices that precipitate the occurrence of maternal health problems of pregnant married women should be eliminated. This can be achieved through a proactive legislation.
2. Pregnant risk mothers should be appropriately screened and be referred to the health centres where their reproductive health problems can be effectively treated.
3. The health care centres at primary, secondary and tertiary levels should be provided with adequate equipment and drugs to enable them render effective maternal health services to the pregnant women.
4. The maternal health care of Nigeria should be geared towards preventive approach rather than curative. This can be achieved through employing the services of health educators to educate and create awareness to the pregnant women.

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