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WOMEN'S UNDERSTANDING OF PREGNANCY HEALTH RISK: INSINUATION FOR CONTRACEPTIVE AMONG WOMEN OF REPRODUCTIVE AGE GROUP ATTENDING LAUTECH TEACHING HOSPITAL OGBOMOSO, OYO STATE NIGERIA.

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ABSTRACT

Background: Complications of pregnancy and childbirth are the leading causes of death among women of reproductive age. **Aims:** To assess the knowledge of the risk posed by pregnancy and implication for contraceptive among women of reproductive age group at LAUTECH Teaching Hospital, Ogbomoso. **Method:** The study employed structured questionnaires that were administered to consenting women of reproductive age group attending the antenatal and gynecology clinics of LAUTECH Teaching Hospital, Ogbomoso. Analysis of data was done using the Statistical Package for Social Sciences version 15 (SPSS-15). **Results:** Over one-third (33.9%) of respondents were between ages 25-29. One hundred and twenty-nine (68.3%) had tertiary educational and 95(50.3%) had never been pregnant. The study revealed that majority of the respondents were sexually active 137(72.5%), high awareness of contraceptives 166(87.8%) but less than one-third (47/24.9%) uses contraceptive presently. More than half, 106(56.1%) of the respondents believed that contraceptive was more hazardous than pregnancy. More respondents 118(62.4%) were aware of pregnancy health benefit which included; enough rest (48.3%), reduce risk of breast cancer (12.7%) and ovarian cancer (22.9%) and endometrial cancer (18%). Hypertension had been implicated by more than half of respondents 103(54.5%) as pregnancy health risk. Age ($p< 0.03$), educational status ($p<0.04$), previous pregnancy ($p<0.001$) and number of pregnancy ($p<0.001$) showed statistically significant differences to respondents' choice of contraceptive over pregnancy as more hazardous to woman's health. **Conclusion:** Women of all ages and educational levels significantly underestimate the potential health hazards of pregnancy. Therefore, there is a need to educate and safeguard women of reproductive age on the health risks of pregnancy and importance of contraceptives usage to prevent unplanned pregnancy.

KEYWORDS: Pregnancy, Contraception, Health risk.

INTRODUCTION

During pregnancy, the woman undergoes many physiological changes, which are entirely normal, including cardiovascular, hematologic, metabolic, renal and respiratory changes that become very important in the event of complications.[1] The fetus inside a pregnant woman may be viewed as an unusually successful allograft, since it genetically differs from the woman.[2] The main reason for this success is an increased maternal immune tolerance during pregnancy. This increased immune tolerance in pregnancy also cause an increased susceptibility to and severity of some disease conditions.

Each year, according to the WHO, ill-health as a result of pregnancy is experienced (sometimes permanently) by more than 20 million women around the world. Furthermore, the "lives of eight million women are threatened and more than 500,000 women are estimated to have died in 1995 as a result of causes related to pregnancy and childbirth.[3] Common causes of maternal death includes pregnancy induced hypertension, postpartum haemorrhage, thromboembolic disorders, anemia, infection among others.[4-6]

In many developing countries, complications of pregnancy and childbirth are the leading causes of death among women of reproductive age. A woman dies from complications of childbirth approximately every minute.[7] Improving maternal health is the 5th of the United Nations' Millennium Development Goals, targeting a reduction in the number of women dying during pregnancy and childbirth by three quarters by 2015, notably by increasing the usage of skilled birth attendants, contraception and family planning. [8]

Increasing contraceptive usage and family planning also improves maternal health through reduction in numbers of higher risk pregnancies. In Nepal a strong emphasis was placed on providing family planning to rural regions and it was shown to be effective.[9] Madagascar saw a dramatic increase in contraceptive use after instituting a nationwide family planning program, the rate of contraceptive use increased from 5.1% in 1992 to 29% in 2008.[10]

Nigeria is Africa's most populous country with a population of over 140 million people.[11] Within Nigeria, there are about 31 million women of childbearing age.[12] Maternal mortality is estimated to be more than twice as high in the rural areas (828 deaths per 100,000 live births) than in the urban areas (351 deaths per 100,000 live births).[12] Regional variations abound in maternal mortality figures across Nigeria.

According to National Demographic Surveys, Nigerian women and couples want fewer children than they once did between 1990 and 2003, the mean desired number of children declined from 5.8 to 5.3.[13] Even so, levels of contraceptive use remain low. In 2013, only 10% of married women used a modern contraceptive method and another 5% relied on a traditional or folk method.[14] The combination of low contraceptive use and smaller desired family size implies high levels of unmet need for family planning in Nigeria. Indeed, among married women of reproductive age, 32% do not want to have a child in the near future but are not using a modern contraceptive method, and are therefore at risk of an unwanted pregnancy.[13]

A survey done by Anita Nelson and Azadeh Rezvan of Harbor-UCLA Medical Centre on women about their knowledge of pregnancy-related health risks and whether pregnancy is more or less risky than taking oral contraceptives found out that 12.5% of participants could not name a single health problem that could worsen with pregnancy, while 15.7% gave all incorrect answers, also more than three-quarters of participants said that birth control pills are more hazardous than pregnancy. They then concluded that women of all ages and all education levels significantly underestimate the potential health hazards of pregnancy, which could impact their contraception selection and utilization, as well as their perception of the need to avoid accidentally pregnancy.[15]

Due to sparse research on this topic this study therefore aims to fill this gap by assessing the knowledge of Nigerian women about pregnancy health risk and to compare their assessments of the risk of pregnancy to their perception of the risk posed by contraceptive use.

MATERIALS AND METHODS

This study was carried out in Lautech Teaching Hospital, Ogbomoso Nigeria. A tertiary health care center in Ogbomoso. The study population included women of reproductive age group attending the antenatal clinic and gynecology of the hospital. It was a cross-sectional, descriptive study among consented women. Sample size was calculated using the Amitage and Perry formula.[16] It is stated as: $P (1 – P) Z^2 / d^2$. Where P = the proportion of women who have knowledge about pregnancy health risk. This was pegged at 13.3% for the purpose of this study gotten from a prior researches on the topic done by Anita L. Nelson, Azadeh Rezvan in Harbor-UCLA medical center, Torrance, CA USA.[15] A sample size of 174 was obtained. However 200 women were recruited, using simple random sampling technique, with the aid of the list of random numbers.

A structured questionnaire was employed for collection of data and it comprised of four short sections:
SECTION A: was employed to collect the demographic data of the respondents such as age, educational status, tribe, occupation and religion.
SECTION B: was employed to know about respondent's knowledge of pregnancy benefits.
SECTION C: was employed to know of respondent's knowledge of pregnancy health risk.
SECTION D: was employed to know perception of women concerning pregnancy health risk in relationship to contraceptives risk.

The questionnaires were interviewer-administered by two trained research assistants. The consent of the respondents was sought verbally during health talks at the counselling sessions during the visit. The questionnaires were also introduced with a request for consent and freedom of participation. The ethical committee of Lautech Teaching Hospital approved the study proposal.

The raw data from the field were screened for inconsistencies and duly edited, making appropriate adjustments where necessary. Analysis of data was by computer using the Statistical Package for Social Sciences (SPSS-15 for Windows Evaluation Version). The variables were summarized using frequencies, proportions, means and standard deviation. Further assessment was done using the Chi-square for significance testing and the level of significant was set at $p < 0.05$.

Knowledge score was computed for knowledge about health benefit of pregnancy and knowledge about risk associated with pregnancy. Respondents that picked appropriate answer to the related questions were score 1 with respondents that picked wrong option being scored 0, the mean scores were obtained and respondents that scored above the mean were referred to as having good knowledge where as those that scored below the mean were refer to as having poor knowledge.

RESULTS

Out of 200 questionnaires administered 189 were suitable for analysis (incomplete information) giving a response rate of 94.5%.

Table 1 shows socio-demographic distribution of the respondents. Majority of respondents were between age group 26 – 30years (33.9%), married (51.9%), student (43.4%), educated up to tertiary level (68.3%). Larger proportions were nulliparous (53.4%), had no previous abortion (82.5%).

Table 2 shows respondents' knowledge about pregnancy health benefit. Majority (62.4%) of the respondents were aware of pregnancy health benefit. Larger proportions of the respondents that were aware of pregnancy health benefit believed that pregnancy enabled them to rest enough (48.3%).

Table 3 shows respondents' knowledge about conditions that decreased by pregnancy. Of respondents 55.6%, 18%, 18% and 19% were aware that pregnancy reduced menstrual cramping, risk of ovarian cancer, endometrial cancer, cervical cancer respectively.

Respondents' knowledge about associated risk with pregnancy. Majority (59.3%) of the respondents were aware of associated risk with pregnancy. Of risk associated with pregnancy, respondents' thought that pregnancy was associated with excessive loss of blood from delivery 67(59.8%), weight gain 47(42.0%) and vomiting 39(34.5%) among other risks.

Table 4 shows respondents' knowledge about clinical conditions that increase with pregnancy. Among respondents 54.5%, 38.1%, 27%, 14%, 19.6% and 31.2% were aware that high blood pressure, diabetes, blood clots, gall bladder disease, kidney infection and haemorrhoids respectively were conditions that increases with pregnancy.

Majority of the respondents were sexually active 137(72.5%), awareness of contraceptives 166(87.8%) and not presently on contraceptive 142(75.1%). Larger proportion of the respondents believed that contraceptives were more hazardous to woman's health than pregnancy 106(56.1%).

In respect to respondents' knowledge about health benefits and risks of pregnancy, majority of the respondents had poor knowledge about health benefits of pregnancy 144(76.2%) and risks associated with pregnancy 101 (53.4%).

Table 5 shows the relationship between demographic and parity distribution versus perception about either contraceptive or pregnancy was more hazardous. Irrespective of age, educational status, previous pregnancy and number of pregnancy, participants believed that contraceptives were more hazardous to woman's health than pregnancy.

Table 6 shows relationship between respondents' knowledge about health benefit and risk of pregnancy and perception about either contraceptive or pregnancy was more hazardous. Knowledge about health benefit of pregnancy and knowledge about risk associated with pregnancy showed no statistical significant relationship to respondents' choice of either contraceptive or pregnancy was more hazardous to woman's health.

Table 1: Socio-demographic distribution of respondents

Variable	Frequency (n = 189)	Percentage (%)
Age in years		
< 20	15	7.9
20-24	61	32.3
25-29	64	33.9
30-34	26	13.8
≥35	23	12.2
Marital status		
Single	87	46.0
Married	98	51.9
Separated	4	2.1
Occupation		
Professionals	50	26.5
Skilled	11	5.8
Semi- skilled	36	19.0
Unskilled	9	4.8
Unemployed	83	43.9
Educational status		
No education	12	6.3
Primary	11	5.8
Secondary	37	19.6
Tertiary	129	68.3
Previous pregnancy		

Yes	94	49.7
No	95	50.3
No of Pregnancy (n = 94)		
1-3	74	78.7
4 - 6	17	18.1
>6	3	3.2
No of Living Children		
None	101	53.4
1 - 3	75	39.7
4 – 6	13	6.9
Previous abortion		
Yes	33	17.5
No	156	82.5

Table 2: Respondents' knowledge about pregnancy health benefit

Variable	Frequency (n = 189)	Percentage (%)
Aware of any pregnant health benefit		
Yes	118	62.4
No	71	37.6
Pregnant health benefits (n = 118)*		
Enable rest	57	48.3
Reduce risk for breast cancer	15	12.7
Help in weight gain	27	22.9
Increase appetite	40	33.9
Help in accessing help facility	46	40.0

*Multiple responses.

Table 3: Respondents' knowledge about clinical conditions that decreased by pregnancy

Variable	Yes n(%)	Unchanged n(%)	Don't know n(%)
Menstrual cramping	105(55.6)	7(3.7)	77(40.7)
Risk of ovarian Cancer	34(18.0)	13(6.9)	142(75.1)
Endometrial Cancer	34(18.0)	7(3.7)	148(78.3)
Cervical Cancer	36(19.0)	12(6.3)	141(74.6)

Table 4: Respondents' knowledge about clinical conditions that increases with pregnancy

Variable	Yes n(%)	Unchanged n(%)	Don't know n(%)
High BP	103(54.5)	12(6.3)	74(39.2)
Diabetes	72(38.1)	16(8.5)	101(53.4)
Blood clots	51(27.0)	18(9.5)	120(63.5)
Gall bladder disease	27(14.3)	17(9.0)	145(76.7)
Kidney infection	37(19.6)	18(9.5)	134(70.9)
Haemorrhoids	59(31.2)	9(4.8)	121(64.0)

Table 5: Demographic and parity distribution versus perception about either contraceptive or pregnancy was more hazardous

	Which was more hazardous to woman's health				
Variables	Contraceptives N =106	Pregnancy N = 83	Df	Pearson Chi-Square (x^2)	P-value
Age in years					
< 30	30(58.8%)	21(41.2%)	1	4.673	**0.031***
≥ 30	76(55.1%)	62(44.9%)			
Educational Status					
No education	4(33.3%)	8(66.7%)	3	8.518	**0.036***
Primary	6(54.5%)	5(45.5%)			
Secondary	15(40.5%)	22(59.5%)			

Tertiary	81(62.8%)	48(37.2%)			
Previous pregnancy **Yes** **No**	 39(41.5%) 67(70.5%)	 55(58.5%) 28(29.5%)	1	16.175	**0.001***
Number of pregnancy **0** **1-3** **4 - 6** **>6**	 65(70.7%) 33(44.6%) 7(36.8%) 1(25.0%)	 27(29.3%) 41(55.4%) 12(63.2%) 3(75.0%)	3	16.319	**0.001***

*Significant.

Table 6: Respondents' knowledge about health benefit and risk of pregnancy with perception about either contraceptive or pregnancy was more hazardous

	Which was more hazardous to woman's health				
Variables	**Contraceptive N = 106**	**Pregnancy N = 83**	**Df**	**Pearson Chi-Square** (x^2)	**P-value**
Knowledge about health benefit of pregnancy **Good Knowledge** **Poor knowledge**	 25(55.6%) 81(56.2%)	 20(44.4%) 63(43.8%)	1	0.007	0.935
Knowledge about risk associated with pregnancy **Good Knowledge** **Poor knowledge**	 48(54.5%) 58(57.4%)	 40(45.5%) 43(42.6%)	1	0.158	0.691

DISCUSSION

Recent survey of women's knowledge of the risks and benefits associated with the use of the OC pill queried women about the health risks and non-contraceptive benefits of pill use, but not one mention was made of the substantial health benefits that accrue to women by preventing pregnancy[17] while a study by Igberase et al revealed that 96.3% of women felt that death can occur from pregnancy-related problems[18] despite this majority 57.4% of our respondents has poor knowledge about pregnancy health risk.

Majority, 72.5% of our respondents are sexually active and 75.1% are not using contraceptive and when asked which is more hazardous to women's health 56.1% says contraceptive is more hazardous than pregnancy, this result is slightly lower than in a study done by Nelson et al where 76.2% of women states that contraceptive is more hazardous than pregnancy.[15] This differences mighty be explained different locality where the study was done.

This study clearly documents that women of all ages and all education levels significantly under-estimate the potential health hazards of pregnancy (as high as 62.8% of respondents that are educated up to tertiary school level still believed that contraceptive is more hazardous than pregnancy). This ignorance could have significant repercussions. First are the potential impacts on contraceptive selection and utilization. A woman cannot give informed consent for a contraceptive method without knowing its benefits, including the health risks averted by pregnancy prevention. Without knowing those health benefits of contraception, patients may be unduly swayed by discussion of risks of contraception and, as a result, may discontinue or inconsistently use their methods, thereby placing themselves at even higher health risks from pregnancy. This overreaction to potential risks of contraception has resulted in repeated "boom and bust" cycles seen with a number of birth control methods over time.[19]

The second impact is on a woman's perception of the need to avoid accidental pregnancy. Without an appreciation of the potential health hazards of pregnancy, women may not be sufficiently motivated to plan and prepare for pregnancy. Pre-conceptional care has been shown to be important for healthier pregnancy outcomes for both the mother and the fetus.[20]

Finally, unless couples understand the potential health hazards associated with pregnancy, delivery and the postpartum period, they may seek to blame those providing their obstetrical care for what appears to them to be the unexpected complications or poor outcomes. This blame-seeking may encourage the practice of defensive medicine and increase practitioners' medico-legal liability.

Given the media focus on the hazards of hormonal contraceptives, it is understandable that women who are not aware of the health hazards of pregnancy might rate contraceptives as being more hazardous than pregnancy. However, the fact that educated women, who were able to correctly identify all the listed risks as increasing in pregnancy, still rated contraceptives as being more hazardous than pregnancy demonstrates a clear imbalance in the information women have been

provided. Discussion of the risks of contraception outside the context of pregnancy prevention clearly distorts women's perceptions.

CONCLUSION

This study clearly documents that women of all ages and educational levels significantly underestimate the potential health hazards of pregnancy. This is a clear indicator to relevant stakeholders on the need to educate and safeguard women of reproductive age on the health risks of pregnancy and importance of contraceptives usage to prevent unplanned pregnancy and also reduce the risk associated with pregnancy.

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