Effects of Location and Educational disposition on Health Status of mothers Attending Antenatal Clinic in the UUTH, Akwa Ibom State, Nigeria

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ABSTRACT

The purpose of this study was to determine the effects of location and educational disposition on health status of mothers attending antenatal clinic in University of Uyo Teaching Hospital (UUTH). Two research questions and two hypotheses were postulated. Cross-sectional research design was adopted. The population consisted of 517 pregnant mothers, who attended antenatal clinic in UUTH. A sample of 258 pregnant mothers was drawn for the study using systematic random sampling technique. "Mothers' Health Status Inventory (MHSI)" was used for data collection. MHSI was validated by three experts. It was subjected to reliability test using Cronbach Alpha, and it yielded a reliability coefficient of 0.81. Data from 258 completed copies of MHSI were used for analysis. Frequencies and percentages were used to answer research questions, while Chi-square was used to test hypotheses. Results indicated that equal proportion of mothers from urban (14.9%) and rural (14.9%) environments had poor health status. The mothers (urban - 27.2%) and rural - 27.7%) suffered from vomiting, and oedema and itching in nearly equal proportion (urban -21.3%; rural-21.1%) respectively. In variation, 34.2% of urban mothers suffered fatigue, while 31.1% of rural mothers suffered heartburn. In education groups, 27.3 % of mothers with OND/NCE and 27.2% with HND and above, and 18.3 % with Secondary school and below had poor health status. Mothers with OND/NCE suffered mostly from anaemia (72.7%), diabetes (54.5%) and hypertension (54.5%). Others with HND and above were affected by heartburn (59.1%), headache (57.3%) and vomiting (53.9%). There was no significant difference in the health status of mothers attending antenatal clinic in UUTH with respect to their location. But, significant difference existed in the health status of the mothers with respect to their educational status. The management of UUTH was advised to offer in-service training to antenatal care providers to be more effective in the offering of antenatal services to mothers, particularly the educated ones to enhance their health status.

KEYWORDS: Health Status, Mothers, Antenatal Clinic, Location, Educational Status, UUTH.

Introduction

Researches showed that location (Niser & White, 2003) and educational status (Majoyinola, 2011) of mothers correlate strongly with mothers' antenatal care utilization and their health status. Antenatal care (ANC) utilization is important to all pregnant mothers.

According to Venkatesh (2005), ANC enhances early identification and management of conditions that could be threatening to the pregnant mother and her unborn child. ANC service providers usually ensure that pregnant mothers are screen for infections, treat malaria, and help to reduce the incidence of perinatal illnesses such as cyanosis, pneumonia and pemphigus (an autoimmune disease marked by blisters on the skin and mucous membranes and often associated with itching or burning sensation). Venkatesh further stated that ANC provides education on birth preparedness and identifies danger signs in pregnancy, which may include ante partum haemorrhage, pre-eclampsia, eclampsia, cord prolapsed, and severe headache among others. It helps to handle complications of pregnancy through timely treatment and referrals. It reduces medical problems in pregnancy such as anaemia, hypertension, ectopic pregnancy, obstructed labour, eclampsia, excessive bleeding and premature labour and delivery.

Osungbade, Shaahu and Uchendu, (2011) observed that a clinical audit of antenatal services in Nigeria found better maternal outcomes among women who had completed ANC than those who had not. Nullgravid (2010) stated that certain factors, including location and educational disposition of mothers, decisively affect antenatal clinic attendance, nature of pregnancy, and health status of mothers. Location of residence of people indirectly affects their health. Starfield (2008) submitted that most of those people living in rural areas are without dustbin, leading to indiscriminate dumping of refuse, and this poor refuse disposal constitutes "serious threat to human health". Accumulation of these garbage and rubbish breeds mosquitoes and other harmful insects that drive most pregnant mothers to clinic with various ailments like malaria, diarrhoea, pre-eclampsia and even pneumonia. These adversely affect the health status of mothers negatively. Park (2009) affirms that mothers in the urban areas with good knowledge of refuse disposal rarely report to the antenatal clinic except on appointment with the health professionals.

Considering the effect of distance of residential location on mothers' antenatal clinic attendance, the United State Agency for International Development (USAID, 2006) explains that women who had shorter time to reach a health facility were more likely to use antenatal care services compared to women who reside farther away, hence maintaining good health status. Wagstaff (2007) noted too that the overall health status of Nigerian women has been affected by a general lack of access to qualified health personnel and adequate health care facilities especially in the rural areas. Spotlighting other factors associated with health and location, Dhermalingham, Hussain and Smith (2000) submitted that lack of amenities such as good roads, electricity, and portable water supply in the rural communities can lead to inadequate distribution of health services, including referrals which can affect health negatively. Poor supply of water, for example, can affect health as it leads to the spread of infections and communicable diseases (Park, 2009). Park further described personal traits of some rural women such as attitude towards self as a factor that can drastically affect health. Such attitude as poor personal hygiene and dirty habits can lead to infection, which may adversely affect one's health status.

On education, Bayon (2014) advanced that education is one of the key social determinants of health care utilization and health status of women. Bayon stated further that education empowers women and their spouses with knowledge to make informed decisions about their health as well as engagement in lucrative employment for the required financial empowerment which will eventually influence their health status. Education liberates one from ignorance and even disease. Ignorance of where to obtain health services, and the importance of health services constitutes much to disease and death both in Nigeria and globally (Dhermalingham, Hussain and Smith, 2000).

WHO (2011) observed that lack of education has harmful effect on health, as it could lead to reduced ability to find, understand and use relevant health information. Thus, education is an important determinant of health status. The high health returns of investing in education of women are indisputable. Well educated individuals experience better health than poorly educated, as indicated by high levels of self-reported health and physical functioning and low levels of morbidity, mortality and disability (Majoyinola, 2011). In contrast, low educational attainment is associated with high rates of infectious diseases, chronic diseases, self-reported poor health, shorter survival when sick, and shorter life expectancy (Sarode, 2010).

Feldman, Makuc, Kleinman and Huntley (2009) suggested that educating women would lead to changes in health care decision-making and allocation of resources within the household for health promotion. Hence, educated mothers are more likely than uneducated to take advantage of modern medicine and comply with recommended treatments. Education, according to Feldman, et al, could change the mother's knowledge and perception of the importance of modern medicine and antenatal services utilization, thus improving the mother's health status. Chowdhury (2003) claims that education empowers the women to demand better quality of antenatal health care services.

In advancing further effect of education on health, Addai (2010) observes that about 33 per cent of pregnant women studied failed in information regarding their health needs due to ignorance leading to poor health status. Ganz, Moinpour and Pauler (2013) on their part noted that the level of formal educational attainment affects the health behaviour of women, and their health status. Simkhada, Van, Porter and Simkhada (2008) agreed that mothers with good educational background present less health problems unlike their non-educated counterparts who usually suffer disease conditions such as gestational diabetes, overweight, high blood pressure, anaemia, constipation and the likes.

According to Hernngs and Polacik (2010), illiterate mothers lacked the knowledge to take care of themselves during and after pregnancy. They have increased chances of living in poor, unhygienic environment and have low nutritional status. In this regard, even if the father is well educated, and the mother is uneducated, the chances are high that the mother and child will still suffer from social deprivation and nutritional problems and therefore have poor health status. Health status is conceptualized as the sum of all aspects of the physical, mental and social health and their manifestations in daily living as subjectively assessed by the individual mother or through the use of more objective surveillance methods such as physical examination, laboratory tests, observation, interview and self-reported health status questionnaire. The health status of pregnant mothers can be appraised through the use of any of the fore-mentioned surveillance methods.

The present study made use of self-reported health status inventory, and complement with observation and interview to assess the health status of mothers attending antenatal clinic in University of Uyo Teaching Hospital (UUTH). The UUTH is a tertiary health care institution affiliated to the University Of Uyo College Of Medicine. The hospital has sufficient equipment, as well as standard laboratories, well-equipped antenatal clinic and specialized medical personnel, including sufficient skilled birth attendants, to take care of the medical and antenatal needs of pregnant women. Many pregnant mothers in Akwa Ibom State and its surrounding choose to receive antenatal care services in the UUTH. These mothers are from different residential locations and they have different educational dispositions. The questions being raised are: What is the health status of the mothers attending antenatal clinic in UUTH with regards to their location and educational background? Are there differences in

the health status of mothers attending antenatal clinic in the UUTH with respect to location and educational background? These questions provide the bases of the present study, which aimed at assessing the health status of mothers attending antenatal clinic in the UUTH with respect to location and educational status, using specific surveillance methods.

Research Questions

1. What is the health status of mothers attending antenatal clinic at the UUTH with respect to their location?
2. What is the health status of mothers attending antenatal clinic at the UUTH with respect to their educational status?

Hypotheses

1. There will be no significant difference in the health status of mothers attending antenatal clinic at the UUTH with respect to their location.
2. There will be no significant difference in the health status of mothers attending antenatal clinic at the UUTH based on their educational status.

Methods

Research Design

Cross-sectional research design was used in the study, because the researchers only collected current data from a cross-section of the study population in respect of the variables of the study, and describe the situation of the subjects as they actually existed. They did not manipulate the independent (location/educational status) and the dependent (health status) variables of the study.

Area of the Study

The study was conducted in University of Uyo Teaching Hospital (UUTH) in Akwa Ibom State, Nigeria. The UUTH is a tertiary health care institution established by the Federal Government of Nigeria in 1999 and is affiliated to the University Of Uyo College Of Medicine.

The hospital has sufficient equipment, standard laboratories, well-equipped antenatal clinic and sufficient skilled birth attendants, including specialized medical personnel to take care of the medical and antenatal needs of pregnant women.

Population of the study

The population of this study consisted of 517 Mothers, who registered for, and attended antenatal clinic in the UUTH between February, 2019 and April, 2019 (UUTH Health Records and Statistics Units, 2019).

Sample and Sampling Technique

A sample of 258 respondents (pregnant mothers) attending antenatal clinic at the UUTH participated in the study. The sample was drawn using the systematic random sampling technique. The sampling procedure was simple. The researcher obtained a list of the mothers who registered for, and attended antenatal clinic in UUTH within the period under study (February to April, 2019). Then, one in every two mothers on the list was drawn for the study, until the required sample was obtained.

Instrument for Data Collection

The instrument tagged "Mothers' Health Status Inventory (MHSI)" was developed by the researchers and used for data collection. It consisted of two sections – A and B. Section A collected data on the respondents' location and educational status. Section B consisted of 23 health status inventory items which were used to assess the presence or absence of common health status indicators of the mothers during pregnancy.

Validity of the Instrument

The instrument (MHSI) was given content and face validation by three validators. Two in the Department of Human Kinetics and Health Education, and one from Educational Foundations Nnamdi Azikiwe University, Awka, Anambra State.

Reliability of the Instrument

The MHSI was pre-tested for determination of its reliability on 25 mothers attending antenatal clinic at University of Calabar Teaching Hospital in Cross River State. The respondents had similar characteristics with those in the main study. The researcher conducted observations and interview on the 25 mothers, took their height and weight measurements and the blood sugar level, blood pressure and urine test according to the variables in the MHSI, and recorded. The reliability test analysis was done using Cronbach Alpha. The result gave a reliability coefficient of .81, and the instrument was considered reliable for use in the study.

Methods Of Data Collection

The researchers obtained permission from the Head, UUTH Institutional Health Research and Ethical Committee to conduct a study in the institution. The consents of the respondents were also solicited and obtained before engaging them in the study. The respondents were adequately informed of the purpose of the study and the need to be honest in responding by interview to the items in the research instrument.

The researchers, with three trained assistants, visited the antenatal clinic of UUTH on clinic days (Wednesdays and Fridays), and conducted the surveillance using observation and interview methods on the sampled mothers in the antenatal clinic one after the other. They also took each of the mothers' height and weight measurements and the blood sugar level, blood pressure and urine test according to the variables in the MHSI, and recorded.

For the observation method, the researcher and three trained research assistants observed each mother for the presence of abnormal signs such as varicose veins, oedema and excessive vomiting. For the interview method, each of the respondents was interviewed to determine abnormal symptoms like backache, itching (especially of the vulva), constipation, heart-burn, fatigue, insomnia and headache. This continued till the required numbers of respondents were obtained. The information obtained was used to complete the mother's health status inventory (MHSI) for determination of their health status.

Methods Of Data Analysis

The data generated from completed copies of the instrument were collated and analysed using frequencies and percentages to answer the two research questions. The two null hypotheses were tested using Chi-square statistic at 0.05 level of significance.

Decision Rule

The decision rule was that any independent variable recording 40% and above for a particular health problem or health problems put together showed poor health status; while an independent variable that had below 40% showed better health status. This meant that the higher the percentage (%), the poorer the health status, and the lower the percentage, the better the health status.

Results

The results are presented in Tables 1 to 4.

Table 1: Percentage Analysis of Health Status Indicators of Mothers Attending Antenatal Clinic in UUTH With Respect to Location

S/N	Health Status Indicators	Location					
		Urban (n=202)		Rural (n=90)		Total (n=292)	
		f	%	F	%	f	%
1.	Vomiting	55	27.2	25	27.7	80	27.4
2.	Inflamed gum	15	7.4	10	11.1	25	8.6
3.	Bad breathe	25	12.4	10	11.1	35	11.9
4	Oedema	43	21.3	19	21.1	62	21.2
5.	Varicose vein	20	9.9	11	12.2	31	10.6
6.	Fatique	69	34.2	31	9.0	100	34.2
7.	Loss of appetite	20	9.9	12	9.0	32	10.9
8	Excessive weight	31	15.3	5	5.6	36	12.3
9.	Itching	43	21.3	19	21.1	62	21.2
10	Backache	55	27.2	28	1.1	83	28.4
11	Insomnia	36	17.8	15	16.7	51	17.5
12	Cramps	46	22.8	25	27.8	71	24.3
13	Constipation	31	15.3	14	15.6	45	15.4
14	Headache	40	19.8	24	26.7	64	21.9
15	Heartburn	48	23.8	28	31.1	76	26.0
16	Perineal pains	27	13.4	7	7.8	34	11.6
17	Excessive bleeding	11	5.4	4	4.4	15	5.1
18	Urinary incontinence	22	10.9	10	11.1	32	10.9
19	Anemia	14	6.9	14	15.6	28	9.6
20	Albuminuria	8	3.9	9	10	17	5.8
21	Diabetes	3	1.5	2	2.2	5	1.7
22	Hypertension	10	4.9	4	4.4	14	4.8
23	Waist pain	16	7.9	9	10	25	8.6
	Overall %		**14.9**		**14.9**		**15.2**

Table 1 shows that approximately equal proportion of mothers attending antenatal clinic in the University of Uyo Teaching Hospital from urban (27.2%) and rural (27.7%) environment suffered vomiting. Similarly, equal proportion of the mothers suffered from oedema and itching (urban 21.3%; rural-21.1%) respectively. In variation, 34.2% of the urban mothers suffered fatigue, while 31.1% of the rural mothers suffered heartburn. The overall percentage scores indicate that 14.9% of the mothers from both urban and rural environments respectively had poor health status.

Table 2: Percentage Analysis of Health Status Indicators of Mothers Attending Antenatal Clinic in UUTH With Respect to Educational Status

S/N	Health status indicators	Educational Status: Secondary school and below (n=61)		OND/NCE (n=55)		HND and Above (n=176)		Total (n=292)	
		f	%	f	%	f	%	f	%
1.	Vomiting	17	27.8	22	40	95	53.9	134	0.5
2.	Inflamed gum	8	13.1	11	20	33	18.7	52	17.8
3.	Bad breathe	10	16.3	5	9.0	32	18.2	47	16.1
4	Oedema	17	27.8	13	23.6	66	37.5	96	32.9
5.	Varicose vein	10	16.3	7	12.7	41	23.3	58	19.9
6.	Fatique	21	34.4	26	47.2	125	71.0	172	58.9
7.	Loss of appetite	17	27.8	8	14.5	21	11.9	46	15.8
8	Excessive weight	3	4.9	6	12	58	32.9	67	22.9
9.	Itching	20	32.7	12	21.8	60	34.1	92	31.5
10	Backache	21	34.4	10	18.1	101	57.3	132	45.2
11	Insomnia	11	18.0	11	20	60	34.1	82	28.1
12	Cramps	15	24.5	17	30.9	99	5.3	131	44.9
13	Constipation	11	18.0	6	12	58	32.9	75	25.7
14	Headache	16	26.2	15	27.7	72	40.9	103	35.3
15	Heartburn	17	27.8	22	40	104	59.1	143	48.9
16	Perineal pains	8	13.1	6	4.9	45	26.6	59	20.2
17	Excessive bleeding	4	6.5	3	5.4	24	13.6	31	10.6
18	Urinary incontinence	7	11.4	8	14.5	41	23.3	56	19.2
19	Anemia	8	13.1	40	72.5	13	13.1	61	20.9
20	Albuminuria	6	9.8	2	3.6	16	0.1	24	8.2
21	Diabetes	5	8.1	30	54.5	7	3.9	42	14.4
22	Hypertension	7	11.4	30	54.5	18	10.2	55	18.8
23	Waist pain	1	1.6	2	3.6	5	2.8	8	2.1
Overall %			**18.3**		**27.3**		**27.2**		**24.6**

Table 2 shows that mothers attending antenatal clinic in the UUTH with educational status of OND/NCE suffered mostly from anaemia (72.7%), diabetes (54.5%) and hypertension (54.5%). Majority the mothers with HND and above were affected by fatique (71.0%), heartburn (59.1%), headache (57.3%) and vomiting (53.9%). Table 2 further showed that the mothers at Secondary school level and below had no score up to 50% against any health status indicators presented in the table. The overall percentage score indicates that only 18.3 % of the mothers in the group (Secondary school and below) had poor health status when compared to 27.3 % and 27.2% in the groups of OND/NCE and HND and above respectively.

Table 3: Summary of Chi-square Analysis on the Health Status of Mothers Attending Antenatal Clinic at UUTH with respect to their Location (n=292)

S/N	Health status indicators	Location							
		Urban		Rural					
		fo	Fe	fo	fe	$\chi^2_{cal.}$	df	χ^2_{crit}	p
1.	Vomiting	55	53.8	25	26.2				
2.	Inflamed gum	15	16.8	10	8.2				
3.	Bad breathe	25	23.5	10	11.5				
4	Oedema	43	41.7	19	20.3				
5.	Varicose vein	20	20.8	11	10.2				
6.	Fatique	69	67.3	31	32.7				
7.	Loss of appetite	20	21.5	12	10.5				
8	Excessive weight	31	24.2	5	11.8				
9.	Itching	43	41.7	19	20.3				
10	Backache	55	55.8	28	27.2				
11	Insomnia	36	34.3	15	16.7				
12	Cramps	46	47.7	25	23.3	28.61*	22	33.92	.05
13	Constipation	31	30.3	14	14.7				
14	Headache	40	43.0	24	20.9				
15	Heartburn	48	51.1	28	24.9				
16	Perineal pains	27	22.9	7	11.1				
17	Excessive bleeding	11	10.1	4	4.9				
18	Urinary incontinence	22	21.5	10	10.5				
19	Anemia	14	18.8	14	9.2				
20	Albuminuria	8	11.4	9	5.6				
21	Diabetes	3	3.4	2	1.6				
22	Hypertension	10	9.4	4	4.6				
23	Waist pain	16	16.8	9	8.2				

* Significant at .05 alpha level

Table 3 shows that the calculated Chi-square ($\chi^2_{cal.}$) value of 28.61 was less than the critical Chi-square ($\chi^2_{crit.}$) value of 33.92 at .05 alpha level and df of 22. This result was not significant. Consequently, there was no significant difference in the health status of mothers attending antenatal clinic at the University of Uyo Teaching Hospital with respect to their location. Therefore, the null hypothesis one was accepted and retained.

Table 4: Summary of Chi-square Analysis on the Health Status of Mothers Attending Antenatal Clinic at UUTH based on their Educational Status (n=292)

		Educational status									
S/N	Health Status Indicators	Secondary school and below		OND/NCE		HND and above		$\chi^2_{cal.}$	df	$\chi^2_{crit.}$	p
		fo	fe	fo	fe	fo	fe				
1.	Vomiting	17	20.8	22	17.7	95	37.0				
2.	Inflamed gum	8	8.1	11	6.9	33	12.6				
3.	Bad breathe	10	7.3	5	6.2	32	15.7				
4	Oedema	17	14.9	13	12.7	66	28.2				
5.	Varicose vein	10	8.9	7	7.7	41	17.1				
6.	Fatique	21	26.7	26	22.8	125	42.1				
7.	Loss of appetite	17	7.1	8	6.1	21	13.4				
8	Excessive weight	3	10.4	6	8.9	58	16.2				
9.	Itching	20	14.3	12	12.2	60	27.8				
10	Backache	21	20.5	10	17.5	101	30.6				
11	Insomnia	11	12.7	11	10.9	60	18.9				
12	Cramps	15	20.3	17	17.4	99	30.6	99.13*	44	60.48	.05
13	Constipation	11	11.6	6	9.9	58	17.6				
14	Headache	16	15.9	15	13.6	72	21.3				
15	Heartburn	17	22.2	22	18.9	104	33.3				
16	Perineal pains	8	9.2	6	7.8	45	18.5				
17	Excessive bleeding	4	4.8	3	4.1	24	6.5				
18	Urinary incontinence	7	8.7	8	7.4	41	11.6				
19	Anemia	8	3.9	4	3.3	13	7.9				
20	Albuminuria	6	3.7	2	3.2	16	5.6				
21	Diabetes	5	2.3	3	1.9	7	3.7				
22	Hypertension	7	4.3	3	3.7	18	6.5				
23	Waist pain	1	1.2	2	1.1	5	9.3				

* Significant at .05 alpha level

Table 4 reveals that the calculated chi-square ($\chi^2_{cal.}$) value of 99.13 was greater than the critical Chi-square ($\chi^2_{crit.}$) value of 60.48 at .05 alpha level and df of 44. This result indicates that there was significant difference in the health status of mothers attending antenatal clinic in the University of Uyo Teaching Hospital based on their educational status. The result being significant means that mothers of different educational status attending antenatal clinic in the University of Uyo Teaching Hospital had various health problems that are comparatively distinct from the various educational groups. Hence, they differed in their health status in relation to their educational status. Therefore, the null hypothesis 2, which states that there will be no significant difference in the health status of mothers attending antenatal clinic in UUTH based on their educational status was rejected.

Discussion of Findings

Findings in Table 1 show that equal proportion of mothers attending antenatal clinic in the University of Uyo Teaching Hospital from urban (14.9%) and rural (14.9%) areas had poor health status. The result of the Chi-square analysis in Table 3 confirmed that there was no significant difference in the health status of mothers attending antenatal clinic in UUTH with respect to their locations. This result was surprising because it contradicted previous researches (Govindasamy & Remash, 2006; Osungbade, Shaahu & Uchendu, 2011), which consistently reported urban-rural differences in hospital antenatal care utilization by mothers and their health outcomes. However, it is logical to think that in Akwa Ibom State there are good roads and good transportation network that link all urban and rural communities to the University of Uyo Teaching Hospital. The accessibility of the UUTH might have made it possible for mothers in urban and rural areas to have equal exposure to the antenatal care services rendered in the hospital antenatal clinic.

On educational disposition and health status of mothers attending antenatal clinic in the University of Uyo Teaching Hospital, findings in Table 2 indicated that equal proportion of mothers attending antenatal clinic in the UUTH under the educational brackets of OND/NCE (27.3%) and HND and above (27.2%) had poor health status. Comparatively, only 18.3 per cent of the mothers in the group of secondary school and below had poor health status. This result was surprising because mothers with higher levels of education should be expected to have adequate health status. The present finding contradicted that of WHO (2011), that well educated individuals experience better health status than the poorly educated. The reason for the observed result might be that the antenatal services offered in the UUTH may likely not be very effective or adequate to impact positively on the health status of the educated mothers. This agrees with the report of the UUTH Health Records and Statistics Unit (2019), that the overall antenatal care coverage in the University of Uyo Teaching Hospital in Akwa Ibom State stood at 61 per cent, which was short of the WHO (2009) recommended 90 per cent coverage required to reduce most deaths among mothers and their newborn.

The educated mothers of this study seemed to be disappointed because they tend to have their whole reliance and trust on hospital antenatal care of the UUTH during pregnancy. This agrees with Feldman, et al. (2009) who reported that the educated mothers are more likely than the uneducated to take advantage of modern medicine including hospital antenatal services, and comply with recommended treatment and advice.

Findings in Table 2 further revealed that the health status indicators of mothers with OND/NCE were anaemia (72.7%), diabetes (54.5%) and hypertension (54.5%). The mothers with HND and above were affected by fatigue (71.0%), heartburn (59.1%), headache (57.3%), and vomiting (53.9%). These findings contradicted that of Simkhada, Van, Porter and Simkhada (2008) who reported that mothers with good educational background presented less health problems unlike their uneducated counterparts who presented with gestational diabetes, high blood pressure, anaemia, and the likes.

Further analysis with Chi-square statistics affirmed that that there was significant difference in the health status of mothers attending antenatal clinic in UUTH based on their educational status. The present findings may have implication for the health care management team of the UUTH, to look into the problem of poor antenatal services of the hospital and provide solution.

Conclusion

Based on the findings of this study, the conclusions reached were that equal proportion of mothers from urban and rural areas had poor health status. Majority of the mothers in the educational groups of OND/NCE and HND and above had poor health status. There was no significant difference in the health status of mothers attending antenatal clinic in UUTH with respect to their locations. Whereas, there was significant difference in the health status of mothers attending antenatal clinics in UUTH with respect to their educational disposition.

Recommendations

1. The public health counsellours should develop health counselling package that will encourage, promote and sustain continuous antenatal clinic attendance among mothers in urban and rural areas and channeled it through primary health care providers to the mothers.

2. The Federal Ministry of Health should supervise and certify the standard of antenatal care given to mothers in the UUTH to ensure that the care is adequate enough to improve the health status of mothers.

3. The management of University of Uyo Teaching Hospital should offer in-service training to antenatal care providers to enable them be more effective in the offering of antenatal services to mothers, particularly the educated ones to enhance their health status.

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