



Utilization of Maternal and Child Health Care Services among Nursing Mothers in Logo Local Government Area of Benue State, Nigeria

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Abstract

The study sought to determine the level of utilization of maternal and child health care services among nursing mothers in Logo Local Government Area (LGA) of Benue State, Nigeria. Four specific objectives and two null hypotheses guided the study. The descriptive survey research, design was employed for the study. The population for the study consisted of 10,310 nursing mothers who attended the Primary Health Care centers in Logo LGA. Simple random sampling technique was used to draw 515 nursing mothers. The instrument for data collection was the researchers designed questionnaire named 'Utilization of Maternal and Child Health care Questionnaire (UMCHCQ)' which was validated by 3 experts in the Department of Human Kinetics and Health Education University of Calabar, College of Education Katsina-Ala campus. Results of the study indicated that there was effective utilization of ante-natal health care services (overall $\bar{x} = 3.34$, $SD = 0.82$); effective utilization of child health care services (overall $\bar{x} = 2.68$, $SD = 0.95$), although some services: food supplement ($\bar{x} = 2.21$, $SD = 1.03$), general examination ($\bar{x} = 2.43$, $SD = 1.05$, and vitamin supplement ($\bar{x} = 2.49$, $SD = 1.05$) were lowly utilized. There were no significant differences in the utilization of ante-natal and child health care services based on mothers age: ante-natal care ($\text{crit-}t = 1.86 > \text{cal-}t = 0.41$); child health care ($\text{crit-}t = 1.86 > \text{cal-}t = 0.94$) at .05 level of significance. The researchers recommend among others that the immunization tempo should be maintained and extended to other maternal and child health care services to promote utilization of those services.

Keywords: Maternal and child care, utilization, nursing mothers

Introduction

All over the world, it is recognized that woman and children are the vulnerable groups that need specific health care services to protect, promote and maintain their health. Studies have suggested that majority of maternal and child morbidity and mortality can be prevented or reduced if women have access to maternal and child health care services during pregnancy, child birth and the first one month after delivery (WHO, 2004; FMH 2005). Worldwide, it is estimated that everyday 380 women die from pregnancy and child birth causes, 14% of these deaths are from Nigeria; Nigeria thus is the 2nd largest contributor to maternal mortality after India. Reporting further, worldwide estimates show that 5.4 million children died in 2017 from preventable causes (UNICEF, 2018). Abu, Madu and Ajaero (2015) studied the prevalence and determinants of under five mortality in Benue State and reported that 72.6 per cent of children born to parents residing in the urban than in the rural (71.4%) had more chances of survival. The authors attributed the differences in survival rates to utilization of available Maternal and Child Health (MCH) services found in the urban than in the rural areas of the study area. Mahajan and Sharma (2014) reported maternal complications and poor prenatal outcomes to be highly associated with non utilization of antenatal and delivery care services. Owolabi, Fatusi, Kuti, Adeyemi, Faturoti and Obiajuwa (2008) had earlier reported poor outcomes in unbooked than booked clients at MCH units. Following from the forgoing, the researchers embarked on the study to ascertain the situation in Logo LGA with regards to utilization of MCH services.

Onunze, Samuel and Musa (2016) define MCH care services as efficient strategies provided by health care workers in health facilities in order to promote the health of the mother and child, and prevent diseases, disabilities and deaths through simple cost effective measures. The MCH care services are also described as services that are promotive, preventive, curative and rehabilitative that is provided for mothers and children to



maintain quality life (WHO, 2017). In this paper, the MCH care services means services that are designed and offered in the primary health care (PHC) centers to improve and promote mother and child health for healthy living.

The MCH services include: Ante-Natal Care (ANC), Delivery Care Services (DCS), Post-Natal Care (PNC), Family Planning Services (FPS), Immunization Services (IMM), Food Supplementation Services (FSS), and Growth Monitoring (GM) (Adamu, 2011). The provision of these services improves, promote and maintain the health of mothers and children when properly utilized.

Utilization of MCH care Services is expressed as the proportion of women and children who need these services and actually receive it within a specified period within the year. According to Stewart and Sommerfelt (2004), utilization is the patronage of health services by the target population, or the group for whom the services are designed for. In this paper, utilization is the extent to which available MCH care services are put to use by nursing mothers to improve themselves and those of their babies and children. Studies have been carried out by researchers on utilization of MCH. Babalola and Fatusi (2009) carried out a study to determine the use of MCH services in Nigeria. Result of the study show that a high percentage (60%) of mothers utilized ANC in the recent pregnancy, 45 percent utilized skilled labour attendants at delivery; while 41.2 percent utilized PNC services. Furthermore Ajaegbu (2013) reported that very low percentage (8%) of women utilized ANC from skilled attendants, 3 percent utilized traditional homes while 36 per cent did not utilize MCH at all. Onunze, Samuel and Musa (2016) reported that child health care services were effectively utilized ($x=2.84$, $SD=0.92$) in Nsukka health district.

Utilization of MCH can be influenced by socio-cultural factors. Mekonen and Mekonen (2004) identified culture, age and others as influential factors to utilization of MCH. Navaneethan (2000) stated that mothers' age can serve as proxy for accumulated knowledge of health care facilities and services which may have a positive influence on the utilization of MCH services. Adamu (2011) noted that variations in mother's age make them have different experiences thus different patterns of utilization of MCH services. Ajaegbu (2013) reported that the use of professional skilled attendants increased from 45 per cent for under 20 years mothers to 61 per cent for age 20 – 34 years and declined to 55 per cent for ages 35 – 49 years. This is an indication that age may be an influential factor in the utilization of MCH care services in the study area by nursing mothers.

Nursing mother is a woman who is breast feeding her baby with her own breast milk. Collins (2018) define nursing mother as a mother who is breast-feeding her baby, she feeds her young child or baby with milk from the breast. She probably might have passed through pregnancy, delivery and is now with a baby who is being fed with her breast milk. Usually she is of child bearing age which is between 15 – 49 years. These women are found attending and receiving MCH care services in the PHC centers in Logo Local Government area of Benue State. This study sought to determine the level of utilization of MCH care services among nursing mothers in Logo Local Government Area of Benue State, Nigeria.

Purpose of the study

The purpose of the study was to determine the level of utilization of maternal and child health care services among nursing mothers in Logo Local Government area, Benue state. Specifically, the study was to determine

1. Level of utilization of ante-natal health care services by nursing mothers in Logo LGA
2. Level of utilization of child health care services by nursing mothers in Logo LGA
3. Level of utilization of ante-natal health care services based on age of the nursing mothers in Logo LGA
4. Level of utilization of child health care services based on age of the nursing mothers in Logo LGA.

Research Questions

The following research questions guided the study

1. What is the level of utilization of ante-natal health care services by nursing mothers in Logo LGA
2. What is the level of utilization of child health care services by nursing mothers in Logo LGA
3. What is the level of utilization of ante-natal health care services based on age of the nursing mothers in Logo LGA
4. What is the level of utilization of child health care services based on age of the nursing mothers in Logo LGA.



Hypotheses

1. There is no significant difference in the level of utilization of ante-natal health care services based on mother's age.
2. There is no significant difference in the level of utilization of child health care services based on mother's age.

Methods

The descriptive survey research design was used for the study. This design permits the investigation of the current status of the phenomenon from a population who would supply the required information for generalization of the larger population (Chiila, Chia & Yajir, 2016). The design was appropriate to give current information on the utilization of maternal and child health care services among nursing mothers in Logo LGA, Benue State.

The population for the study consisted of all nursing mothers attending the Primary Health Care (PHC) centers for maternal and child health care services in Logo LGA numbering 10,310 (Logo local government health statistics unit, Ugba, 2017)

A sample of 515 respondents was drawn through a simple random sampling technique.

The instrument for data collection was the researchers designed questionnaire titled Utilization of Maternal and Child Health Care Questionnaire (UMCHCQ). The reliability of the instrument UMCHCQ was determined through spilt half method, using Cronbach Alpha Statistic. The reliability co-efficient index of UMCHCQ was 0.90 indicating a substantial reliability.

The instrument was administered to nursing mothers attending for maternal and child health care services in their respective PHC centers. Out of the 515 copies of the questionnaire collected, only 500 copies were completely filled out and were analysed on item by item basis. Mean and standard deviation were used to interpret the results. To categorize utilization into effective and low utilization, a mean response of 2.5 and above was considered effective utilization, and a mean response of less than 2.5 was considered low utilization. Mean responses were used to answer the research questions. The null hypotheses were tested using t-Test statistics at .05 level of significance.

Results

Table I

Level of Utilization of Ante-Natal Health Care Services (n=500)

Items	\bar{x}	S.D	Decision
2. Blood pressure measurement	3.41	0.77	Eu
3. Haemoglobin estimation	3.35	0.81	Eu
4. Health educ. On nutrition	3.43	0.79	Eu
5. Weight measurement	3.39	0.73	Eu
6. Urine testing	3.13	0.98	Eu
Grand mean	3.34	0.82	Eu

Key: Eu = effectively utilized; Lu = lowly utilized

Data in Table 1 showed a mean utilization level of (\bar{x} = 3.34; SD =0.82). Since the mean is greater than 2.25, this implied that ante-natal health care services were effectively utilized. The standard deviation which ranged from 0.73 and 0.98 showed that the responses were close to each other.

Table 2

Level of Utilization of Child Health Care Services (n=500)

Items	\bar{x}	S.D	Decision
2. Growth monitoring	2.74	1.06	Lu
3. Vitamin A supplement	2.49	0.05	Lu
4. Immunization	3.51	0.56	Lu
5. General examination	2.43	1.05	Lu
6. Food supplement	2.21	1.03	Lu
Grand mean	2.68	0.75	Lu

Key: Eu = effectively utilized

Lu = lowly utilized

Data in Table 2 showed a cluster mean response of (\bar{x} = 2.68; SD = 0.75). This implied that child health care services were effectively utilized. The Table further showed that all the child health care services were lowly utilized except immunization (\bar{x} = 3.51, SD = 0.56), and growth monitoring (\bar{x} = 2.74, SD = 1.06) which were effectively utilized. The standard deviation which ranged from 0.56 and 1.06 indicated that there were no much variations in the responses of the mothers in utilizing child health care services.

Table 3
Utilization of Ante-Natal Health Care Services Based on Mother's Age

Items	15-30 yrs (n=190)		31 yrs and above (n=320)	
	\bar{x}	SD	\bar{x}	SD
2. Blood pressure measurement	3.18	1.00	3.26	0.53
3. Haemoglobin estimation	3.13	0.97	3.17	0.68
4. Health education on nutrition	3.19	1.01	3.30	0.59
5. Weight measurement	3.38	0.59	3.01	0.71
6. Urine testing	3.32	0.88	2.39	0.83
Overall mean	3.24	0.89	3.03	0.67

Data in Table 3 indicated that mothers aged 15 – 30 years had slightly higher overall mean scores than those aged 31 years and above in the utilization of Ante-natal health care services (15 – 30years overall \bar{x} =3.24; SD = 0.89 > 31 years and above overall \bar{x} = 3.03; SD =0.67). The standard deviation which ranged from 0.67 and 0.89 indicated that there were no much variations in the responses of the mothers in utilizing ante-natal health care services based on age.

Table 4
Utilization of Child Health Care Services Based on Mothers' Age

Items	15-30 yrs (n=190)		31 yrs and above (n=320)	
	\bar{x}	SD	\bar{x}	SD
7. Growth monitoring	2.61	1.10	2.27	0.70
8. Vitamin A supplement	2.21	0.93	2.01	0.79
9. Immunization	3.58	0.49	3.11	0.51
10. General examination	2.37	1.05	1.76	0.63
11. Food supplement	2.24	1.03	1.52	0.51
Overall mean	2.60	0.92	2.13	0.63

Data in Table 4 indicated that mothers aged 15 – 30 years had slightly higher overall mean scores than those 31 years and above in the utilization of child health care services (15-30 years overall \bar{x} =2.60, SD = 0.92 > 31 years and above overall \bar{x} =2.13, SD =0.63) The standard deviation which ranged from 0.63 and 0.92 indicated that there were no much variations in the responses of the mothers in utilizing child health care services based on age.

Table 5
Result of t-Test Analysis Verifying Age Differentials in the Utilization of Ante-Natal Health Care Services

Age	n	\bar{x}	SD	cal-t	df	crit-t 0.5	Decision
15 – 30 years	5	3.24	0.92	0.41	4	1.86	Accept
31 years and above	5	3.03	0.67				

Results in Table 5 showed the t-value of mean scores responses on utilization of Ante-natal health care services based on mothers' age. Since the crit-t value (1.86) was greater than the cal-t value (0.41), the null hypothesis was accepted. This was to say that there was no statistically significant difference in the utilization of ante-natal health care services based on mothers' age.

Table 6
Result of t-Test Analysis Verifying Age Differentials in the Utilization of Child Health Care Services

Age	n	\bar{x}	SD	cal-t	df	crit-t 0.5	Decision
15 – 30 years	5	2.60	0.92	0.94	4	1.86	Accept
31 years and above	5	2.13	0.63				

Result in Table 6 showed the t-value of mean scores responses on utilization of child health care service based on mother's age. Since the crit-t value (1.86) was greater than the cal-t value (0.94), the null hypothesis of no statistically significant difference was accepted. This was to say that there were no differences in the utilization of child health care services based on mother's age.

Discussions

Utilization of Ante-Natal Health Care Services

Results in Table 1 showed effective utilization of ante-natal health care services (\bar{x} = 3.34, SD = 0.82). This was not surprising and was expected because ante-natal services are important MCH care services that give mothers and children maximum protection during pregnancy and by extension reduce maternal and child morbidity and mortality. The result was in line with that of Babalola and Fatusi (2009) which reported (60%) utilization of ANC in the recent pregnancy by mothers studied. Results in Table 3 showed slight differences in the utilization of ante-natal health care services by age (15 – 30 years overall \bar{x} = 3.24, SD = 0.89 > 31 years and above overall \bar{x} = 3.03, SD = 0.67). This result agreed with Adamu (2011) who noted that variations in mother's age expose them to different experience thus different patterns of utilization of MCH services. The result was also in agreement with Ajaegbu (2013), which reported that utilization of skilled attendants increased from 45 per cent for under 20 years mothers to 61 per cent for 20 – 34 years mothers. Results in Table 5 however, showed that the differences in utilization based on age were not significant (crit-t = 1.86 > cal-t = 0.41).

The implication of the finding was that the women's health and that of children will be promoted through the use of Ante-natal services to reduce maternal and child morbidity and mortality.

Utilization of Child Health Care Services

Results in Table 2 showed effective utilization of child health care services on the whole (\bar{x} = 2.68, SD = 0.75). Some of the services were lowly utilized; however, immunization was effectively utilized. This could be due to mass awareness creation on the importance of immunization and the prevention of killer diseases of childhood. The WHO (1990) stated that immunization is key in child development and survival of children under 5 years. Onunze, Samuel and Musa (2016) reported that child health care services were effectively utilized (\bar{x} = 2.84, SD = 0.92) in Nsukka health district.

Table 4 showed slight variations in the utilization of child health care services according to mother's age (15 – 30 years overall \bar{x} = 2.60, SD = 0.92 > 31 years and above overall \bar{x} = 2.13, SD = 0.63). However, results in Table 6 revealed that the differences were not significant (crit-t = 1.86, cal-t = 0.94). This result contradicted the statement by Navaneethem and Dhamanlingam (2000) that age can serve as proxy for women accumulated knowledge of health facilities and services that will influence the utilization.

Conclusion

The study concluded that there was effective utilization of ante-natal and child health care services, and there were no significant difference in the utilization of these services based on mothers age.

Recommendations

Based on the findings and discussion of the study, the following recommendations are made:

1. the federal Government through the ministry of health should increase awareness creation on other aspects of child health services to promote utilization as is being done on immunization services
2. primary health care providers should be sensitized and encouraged to promote child health care services since they are important for child survival
3. The immunization tempo should be maintained and extended to other maternal and child health care services to promote utilization of those services.



References

- Abu, I. A., Madu, C. K., & Ajaero, K. (2015). The prevalence and determinants of under- five mortality in Benue State. *SAGE Journals* 3, (4), 18-26
- Adamu, H.S. (2011). *Utilization of Maternal Health Care Services in Nigeria. An analysis of Regional differences on the Pattern and Determinants of Maternal Health Care use*. An unpublished M. Ed. Thesis. University of Liverpool.
- Ajaegbu, O.O. (2013). Perceived Challenges of Using Maternal Healthcare Services in Nigeria. *Art and Social Sciences Journal* 65(3), 47-68
- Babalola, S., & Fatusi, A. (2009). *Determinants of the Use of Maternal Health Services in Nigeria*. BMC Pregnancy and Child birth 9(43). Retrieved from <http://www.biomedcentral.com/articles/10.1186/1471-2393-43>.
- Chiila, S. K., Chia, T., and Yajir, D.A. (2016). *Research Methods in Education*. Gboko: Lumfter Multimedia Publishers
- Collins, H. (2018). *Collins English Dictionary*. Retrieved on 4/10/2018 from <http://www.collinsdictionary.com>
- Federal Ministry of Health (2005). *National Reproductive Health Policy and Strategy*. Abuja: Federal Ministry of Health.
- Logo Local Government Health Statistics (2017). *Records of maternal and child health services*. Ugba: Logo local Government Health Statistics Unit
- Mahajan, H. & Sharma, B. (2014). Utilization of maternal and child health care services by primigravida females in urban and rural areas of India. *ISRN Preventive Medicine* 14, 1-10
- Navaneetham, K., and Dhamanlingam (2000). Utilization of National Health Care Services in South India. Retrieved from http://unpanl.un.us/intradoc/groups/public/documents/apcity/unpan_01268.pdf
- Onunze, R.A., Samuel, E.S., & Musa, K. (2016). Utilization of Child Health Services in Primary Health Care Centres in Nsukka Health District. *International Journal of Human Kinetics, Health and Education*. 2 (2), 45-54
- Owolabi, A. T., Fatusi, A. O., Kuti, O., Adeyemi, A., Faturoti, S. O. & Obiajuwa, P. O. (2008). Maternal complications and perinatal outcomes in booked and unbooked Nigerian mothers. *Singapore Medical Journal* 49 (7), 526 – 531
- Stewart, K. & Sommerfelt, A. E. (2004). *Utilization of Maternity Care Services: A Comparative Study using DHs Data-Proceeding of the Demographic and Health Surveys*. World Conference: Washington DC 111 Pp. 1645 - 1668
- UNICEF (2018). Maternal and child mortality. “ Maternal Mortality Fact Sheet 348, media Centre. Retrieved from <http://www.who.int/mediacentre/factsheet/fs348>
- WHO (2004). *Making Pregnancy Safer: The critical Role of the Skilled Attendant*. A short statement by who and ICM (online). Retrieved from [http://who.int/publication\(2004/924\)692.PDF](http://who.int/publication(2004/924)692.PDF)
- WHO (2017). *World health report: Made every mother and child count*. Geneva: WHO