Provision and Utilization Levels of Child Health Services in Primary Health Centers (PHC) in Enugu Urban of Enugu State

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Abstract

Purpose: *The study was to determine the provision and utilization of Child Health Services (CHS) in Primary Health care (PHC) Centres in Enugu Urban of Enugu State.*

Design/Methodology/Approach: *The independent variables investigated were maternal age, parity, occupation, and educational attainment. The study was limited to eight components of CHS available in area of study. Descriptive survey research design was used for the study. Three specific objectives and three corresponding research questions were formulated to guide the study, while alone hypothesis was postulated and tested at .05 level of significance. Data were collected using self developed questionnaire. A total of 310 nursing mothers currently utilizing CHS in the three PHC facilities in Enugu Urban participated in the study. Percentages and mean score were used in analyzing the data collected, while chi-square statistics was used in testing the hypothesis postulated.*

Finding: *The results showed that the eight components of CHS were available in the PHC. All other CHS were effectively utilized except exclusive breast-feeding. All maternal demographic factors studied had no statistical significant relationship with the utilization of CHS. Based on the findings, the study recommended among other things that health education should be encouraged at the grass root for the utilization of CHS to improve on the nursing mothers' utilization of CHS especially in the area of exclusive breast-feeding.*

Research Limitation/ Implication: *Health education is considered by many as the first and most important component of PHC. This is true of developing countries such as Nigeria and its rural settings where ignorance and socio-cultural practices such as superstition, food taboo and "ogbanje" system prevail. There is need for all public health educators and other health professionals to involve themselves in all health education programmes targeted on child-bearing mothers (CBMs) to appreciate the need for effectively utilizing MCH services in order to educate mothers on the importance of exclusive breast feeding.*

Originality/Value: *the paper identified socio-economic factors that are capable of influencing effective utilization of CHS in HPC facilities in Enugu State.*

Keywords*: Chid Health Services, Primary Health Centers, Provision , Utilization, Eungu Urban*

Paper Type: *Empirical paper*

Introduction

Children are the future of any nation or community. They are essential for the survival of any group of people. For this reason and more the focus of international public health concern has been on reducing child mortality and morbidity in order to propagate, preserve, nurture and ensure continuity of the human race. This is rightly so as WHO (2000) reported that recently in the mid 1980s, some fifteen million children under five years of age died each year, representing 30 per cent of all deaths in many countries. This evil trend was addressed through the provision of Child Health Services (CHS).

According to William (1984), CHS are that aspect of medical services that provide essential health services to protect, promote and maintain health and well-being for child bearing families as a unit and for each individual child within that family up to school age (from birth to five years). World Health Organization WHO (1993) stated that CHS is a channel through which medical and health services can be organized to improve the health of the child, prevent

diseases and promote growth and development.

Starfeiled (2002) asserted that CHS is an integral part of Primary Health Care (PHC) which is concerned with the provision of accessible, integrated, bio-psychosocial health care service by the health care personnel who are accountable for addressing a large majority of personal health needs, developing a sustained partnership with patients and participating in the context of family and community. According to Guagilardo (2004) PHC is recognized as the most important form of health care delivery system for maintaining populations health including child health, because it is relatively in-expensive, can be more easily delivered than specialty an in-patient care (if properly distributed) and most effective in preventing disease progression in a large scale.

The health of the child and services offered to protect it are influenced by factors classified by Cleason, Edward, Mawiji, and Pathmanathan (2000) as proximate factors (such as non-medical and medical care during the antenatal period, care at birth, preventive and curative care in the post-natal periods) and non-proximate factors such as maternal factors (age, parity and birth intervals). Household and community level factors (such as water supply, sanitation, and housing) then socio-economic development and health services. Diamond (2000) pointed out that there is little doubt that high child mortality rates are associated with high rates of child bearing early child bearing, short birth spacing and high-parity birth. He suggested that effort to reduce high child mortality should not only end in health intervention but should include improvement in women's education. Gabr (1985) identified the components of child health care services as follows: immunization services, growth monitoring, oral re-hydration therapy, and promotion of breastfeeding, treatment of minor illness and outreach services. These activities are aimed at protecting child health and preventing ill health. Immunizations are given to protect the child against childhood killer diseases. The Federal Ministry of Health FMOH. (2004) identified these diseases as: whooping cough, measles, tuberculosis, tetanus, poliomyelitis and diphtheria

Child health services among other health services are provided by the government at all levels: federal, state and local government levels. Each has her responsibilities in turn for providing these services either single-handedly or in collaboration with non-governmental agencies such as UNICEF, United State Affair for International Development (USAID), World Bank, WHO, DFID. According to Cleason and Waldman (2000), health care services are provided at government levels, community levels and family levels. It is the responsibility of the government to provide some of these health services, while it is the responsibility of the community to make them accessible, bearing in mind the cultural health practices and attitudes of the families to health issues.

The CHS provided at home/family level includes: Breast-feeding, good nutrition by good weaning practices, hygiene and other health promoting behaviours. Clearson and Waldman (2002) maintained that the ability of the mother to recognize illness, provide appropriate and quality care and seek medical help early in sickness, goes a long way to save and keep the child alive.

WHO (2000) reported that at the community level, the extent of utilization of child health services will depend on community factors such as culture, values, beliefs, norms, ecology and geography among other things. Factors such as availability of those services, accessibility, and quality of other health services (private and public) around, food, energy, water supply and sanitation will determine and influence the extent of use of CHS.CHS is provided through PHC.

The PHC approach is basically similar to BHSS, which had been Nigeria's strategy for provision of health for all her citizens prior to adoption of PHC in 1987, except for a new emphasis on intersects oral linkages and greater community participation. Strengthening and sustaining the PHC system within the national health policy has been the focus since early 1990^{s}, which resulted in the creation of National Primary Health Care Development Agency (NPHCDA). The NPHCDA is expected to strengthen PHC implementation through provision and supervision of technical assistance to the LGA. Recognizing the inherent problems that exist in the health care delivery system, the World Bank. Agricultural Development Bank (ADB) and DFID are assisting the Nigeria government in health sector reforms with a particular emphasis on improving immunization services.

This study is based on the pathway of survival model. Diamond (2000) pointed out that the pathway of survival is a guide that distinguishes

between preventive behaviours such as breast feeding that can be implemented entirely at home such as immunization that require more direct effort from the health care system. He pointed out that this pathway shows how the management of childhood illness can also be carried out at home in many instances with the mother being responsible for taking critical decision of when external help and support are required. Diamond (2002) stated that World Bank in adopting the model included the more distal role of government policies and actions and so the revised framework includes health system interventions as well as promotion of appropriate household and community behaviour as essential immediate steps between policy and outcome. It recognizes that integrated management of pregnancy, child hood, and control of communicable and non - communicable diseases contribute one set of influence on household behaviours yet policies that determine the availability of health care supporting, food and sanitation and other related amenities such as water supply are equally important. This model recognizes that what happens in the household and the communities are most proximate determinant of utilization of available health care services.

Fig 1 Determinants of Child Health Outcomes

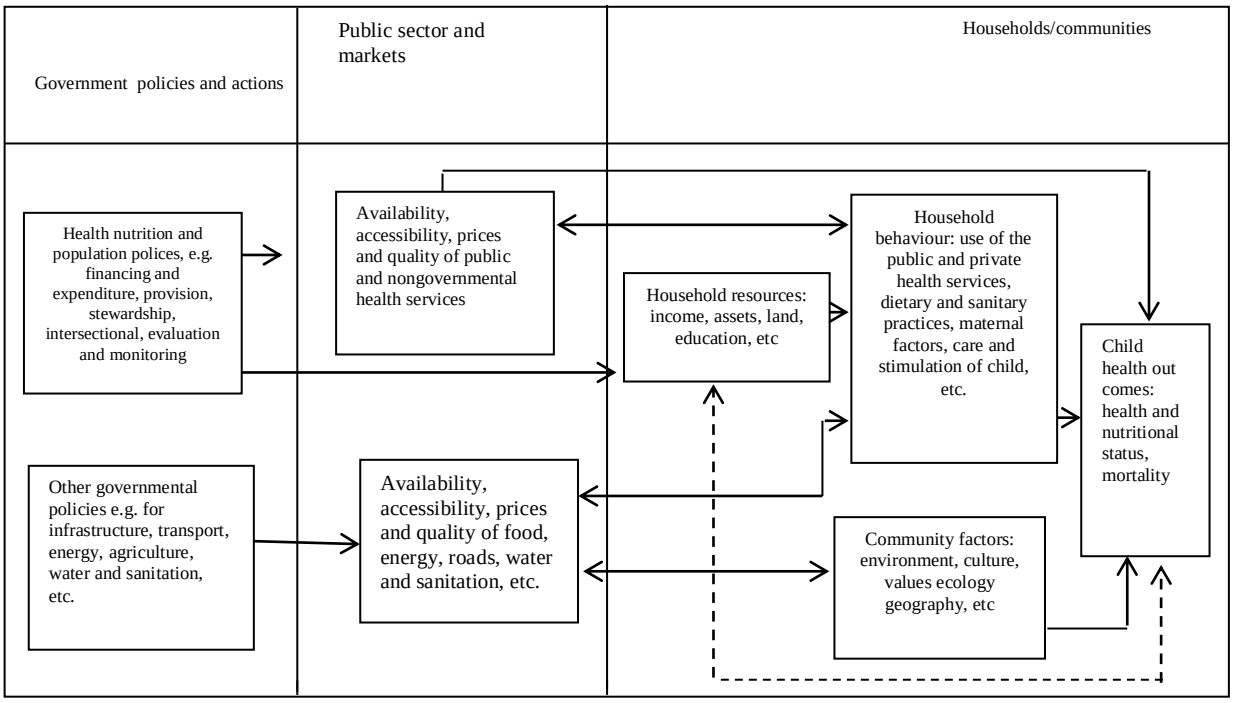
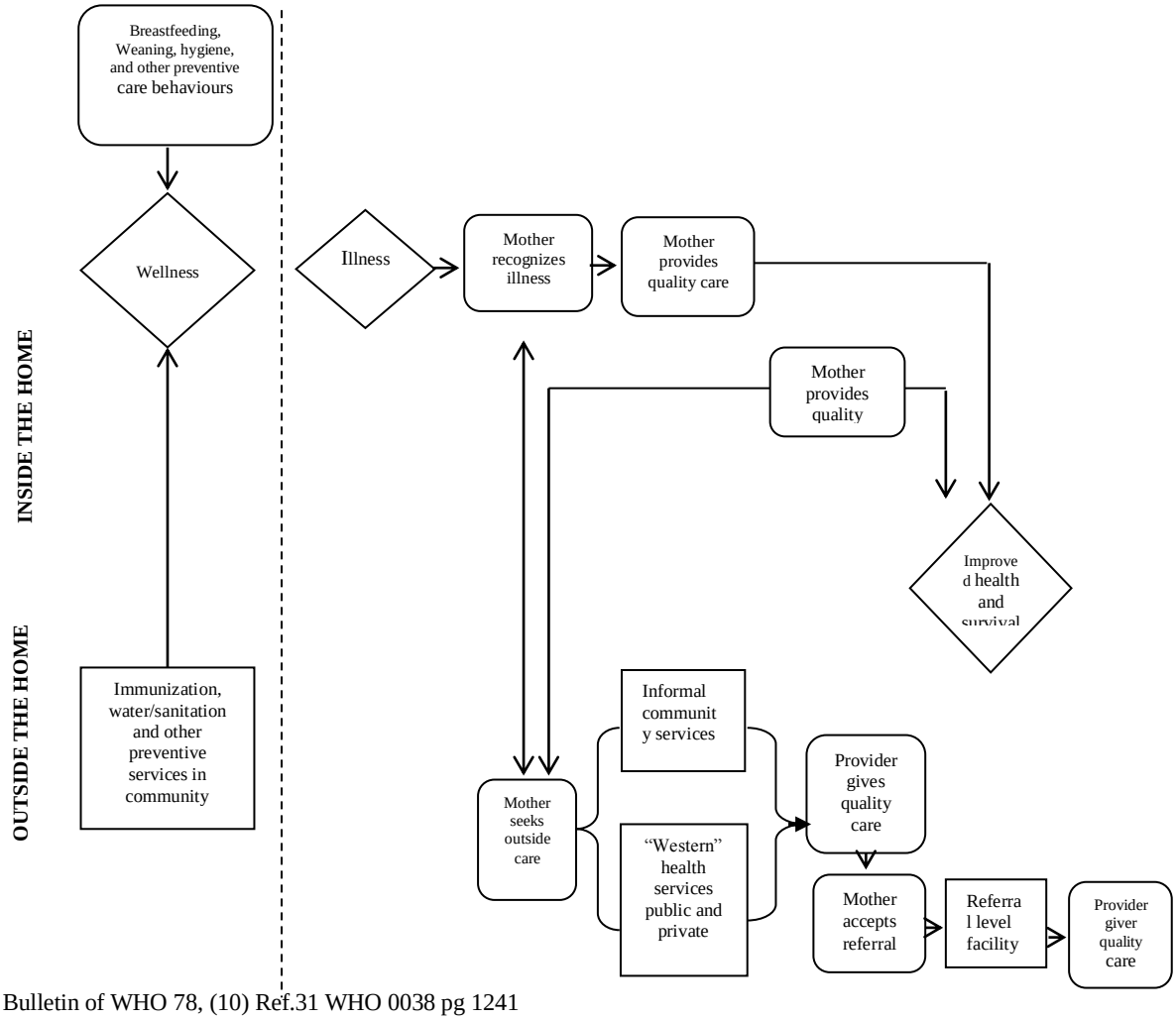


Fig 2. The Pathway to Survival Programme Guide



Source: Bulletin of WHO 78, (10) Ref.31 WHO 0038 pg 1241

The purpose of this study was to determine the provision and utilization levels of CHS in PHC facilities in Enugu Urban. Specifically, the study tends to:

1. Determine the provision of CHS for children less than five years of age in PHC facilities in Enugu urban;
2. Ascertain the level of utilization of each of the eight components of CHS in PHC facilities in Enugu Urban;
3. Identify out any socio-economic factor(s) that could influence effective utilization of CHS in PHC facilities in Enugu urban.

The following research questions were formulated to guide the study.

1. What are the CHS provided for children less than five years of age in PHC facilities in Enugu Urban?
2. What is the level of utilization of each of the eight components of CHS in the PHC facilities in Enugu urban?
3. What socio-economic factor could influence effective utilization of CHS in PHC facilities in Enugu Urban?

The following hypothesis was postulated to guide the study and tested at 0.05 level of significance.

1. There is no statistically significant relationship in the maternal demographic variables (age, parity, occupation and educational attainment) and level of utilization of CHS.

Methods

A total of 310 mothers who attended child welfare clinic from the three primary health centres in Enugu Urban on twice a week schedule were used for the study. (Abakpa Nike 152, Asata PHC 68, Uwani PHC, 90). Self designed questionnaire was used to collect data. Questionnaire consists of four sections; A, B, C and D. Validity of the instrument was given by judgement of five experts from the Department of Health and Physical Education UNN.Split half method was used to establish reliability. Kudder Richards's methods were used to obtain the coefficient of internal consistency which was .90. Data collected was analyzed item-by-item to indicate the response frequencies and percentages for provision/ availability, this was used to answer the research question on provision while for level of utilization, scores was allotted as follows: Very often = 5;Often =4; Occasionally=3; Rarely =2; and Never=1. The questionnaire responses were coded and analyzed using Computer Statistical package for the social Sciences (SPSS Batch System). The mean were calculated from the summated rating i.e.

$$= \frac{15}{5} = 3.0 \ (Criterion\ mean)$$

Criterion group mean above 3.0 was considered effective utilization, while criterion mean below 3.0 was considered under utilization of CHS. This was used to answer the research question on level of utilization of CHS. The chi-square (χ^2) values calculated were used to test the null hypothesis at .05 level of significance. This was used to test the influence of maternal socio demographic factors that could affect effective utilization of CHS. (Age, educational attainment, parity, and occupation).

Results and Discussion

The findings are hereby presented in tables below according to research questions and hypothesis.

Table 1:CHS available at PHC facilities in Enugu Urban (n=302)

Variable	Response	
	F	%
Antenatal Services	302	100
Maternity services	302	100
Post-natal services	302	100
Growth monitoring services	302	100
Oral re-hydration therapy (ORT)	302	100
Nutrition education during ANC	302	100
Exclusive Breast feeding (BFHI)	302	100
Immunization	302	100

Table 1 presents the frequencies and percentage of responses on available CHS in PHC facilities in Enugu Urban. The table shows that all CHS were available at the PHC facilities in Enugu Urban.

Table 2: Level of Utilization of Child Health Services in PHC Facilities in Enugu Urban (n = 302)

Variable	Very often		Often		Occasionally		Rarely		Never		Grand Mean
	F	M	F	M	F	M	F	M	F	M	
Maternity Services	180	2.98	73	0.98	35	0.34	9	0.06	5	0.02	4.38
Post-natal Service	89	1.6	114	1.5	59	0.59	30	0.2	0	0	3.89
Growth monitoring Services	65	1.08	72	0.85	55	0.55	66	0.44	44	0.15	3.17
Oral rehydration Therapy (ORT)	169	2.8	56	0.74	42	0.42	26	0.72	8	0.03	4.71
Nutrition Education	101	1.8	37	0.5	51	0.5	48	0.32	65	0.22	3.34
During ANC/PNC	146	2.4	72	0.95	45	0.45	27	0.18	10	0.03	4.01
Exclusive Breast Feeding (BFHI)	26	0.43	28	0.37	51	0.51	56	0.37	141	0.47	2.15
Immunization	225	3.7	29	0.38	16	0.16	2	0.01	0	0	4.25

Table 2 shows that all available CHS, except exclusive breast-feeding with mean score of 2.15 are effectively utilized, all having response mean score of above 3 points which is higher than the criterion mean of 3.0 implying effective utilization.

Table 3 List of Socio-economic Factors that could Influence CHS Utilization (n = 302)

	Variables	*f*	*%*
a.	Lack of money	3	0.99
b.	Ignorance of the need for CHS	121	40.06
c.	Bad attitude of Heath care providers	56	18.54
d.	Unavailability of child health services in the clinic	3	0.99
e.	Procrastination or postponing the days of going to the Clinic or hospital	41	13.58
f.	Availability of health personal at home or the neighbourhood	233	77.15
g.	Non-availability of clinic equipment e.g. needles and syringes, thermometer etc.	4	1.32
h.	Uncooperative attitude of husband	0	0
i.	None availability of medical health personal in the clinic	5	1.65
j.	High cost of drugs and services	2	0.66
k.	Difficulty in getting transport to the clinic	5	1.66
l.	Religious beliefs	2	0.66
m.	Cultural beliefs	78	25.85
n.	Superstitious e.g. immunization exposes child to HIV	6	1.99
o.	Taboos	4	1.32
p.	Lack of awareness of available CHS.	7	2.32
q.	None	8	2.65

Data in table 3 shows lists of other socio-economic factors that could affect effective utilization of CHS in the PHC in Enugu urban.

From the table 3, availability of medical personnel in the neighbourhood had the highest influence (77.15 %) on the respondents under study. This data depict the picture of health care delivery system in Enugu urban. This is because in Enugu urban there are so many private hospitals and maternity clinics. Majority of these private facilities lack qualified health personnel, but because they are readily available and near to mothers, they are usually resorted to. The end result would be that the mothers are either not informed or well informed of the need for CHS. Next to the availability of medical personnel in the neighbourhood is ignorance of the need for CHS with response of 40.06. Cultural belief showed response of 25.83 per cent bad attitude of health care provides show response of 18.54 per cent, while procrastination or postponing clinic days show 13.56%. It is worth noting that these factors with the highest response are related to information and orientation about CHS

Table 4: Influences of maternal demographic variables on the utilization level of CHS.

Variable	Level of variable	O	E	Cal X^2	Cal table	df
Age	15-26 years	73	100.6	-0.55	3.84	1
	27-38 years	196	100.6	1.9	3.84	1
	39 years & above	33	100.6	-1.36	3.84	1
	Total	302		0	3.84	1

(P > .05)

Table 4 above shows that for maternal age, calculated chi-square value is 0 less than calculated chi-square table value of 3.84 df 1 at .05 level of significance. Therefore hypothesis one which stated that there is no statistical significant influence of maternal age on level of utilization of CHS is accepted.

Table 5: Influence of Maternal Educational Attainment on Utilization level of CHS. (n = 302)

Variable	Level of variable	O	E	Cal X^2	Cal table	df
Educational attainment	No formal education	1	50.3	-2	3.83	1
	FSLSC	58	50.3	0.3	3.83	1
	WASC/NECO	113	50.3	2.5	3.83	1
	NCE/ND	75	50.3	1.0	3.83	1
	BA/B.Sc.	36	50.3	0.6	3.83	1
	Postgraduate	19	50.3	-1	3.83	1
	Total	302		1	3.83	1

Table 5 above shows that maternal educational attainment calculated chi-square value is 1 less than calculated chi-square table value 3.84 df 1 at .05 level significance. Therefore hypothesis 2 is accepted.

Table 6: Influence of Maternal Parity of Level of Utilization of CHS (n = 302)

Variable	Level of variable	O	E	Cal X^2	Cal table	df
Panty	One	31	50.3	-0.8	3.83	1
	Two times	52	50.3	0.07	3.83	1
	Three times	86	50.3	1.4	3.83	1
	Four times	77	50.3	1.6	3.83	1
	Five times & above	56	50.3	0.2	3.83	1
	Total	302		2.3	3.83	1

From table 6 data shown that calculated χ^2 values was 2.3 less than calculated χ^2 table value of 3.83 df at .05 level of significance. The hypothesis, which stated that maternal parity has no statistical significant influence on level of utilization of CHS, is therefore accepted.

Table 7: Influence of Maternal Occupational Status on Utilization of CHS (n = 302)

Variable	Level of variable	O	E	Cal X^2	Cal table	df
Occupational status	Farming	15	50.3	-1.4	3.83	1
	Trading	65	50.3	0.6	3.83	1
	Manufacturing	42	50.3	-0.3	3.83	1
	Civil Servant	78	50.3	1.1	3.83	1
	Artisan	48	50.3	-0.9	3.83	1
	Unemployed	54	50.3	0.1	3.83	1
	Total	302		-0.8	3.83	1

Data on table 7 showed that calculated x^2 value was -0.8 less than cal, table x^2 value of 3.84 df 1

at .05 level of significance. The hypothesis is therefore accepted.

Discussion

Data on table one indicates that the eight components of CHS are provided at the PHC facilities in Enugu urban. Data generated from the records of immunization revealed that though these services exists in all the PHC facilities in Enugu urban, vaccines were not always available for the exercise. For instance vaccines against cerebrospinal meningitis, HBV among others were not available in 2003 and 2006 respectively. The finding is plausible and expected. The findings are in line with UNICEF

(2004) assertion that despite remarkable progress in routine immunization, there seemed to be resurgence in the number of confirmed polio cases in Nigeria. The picture is made worst by unorganized record system of immunization services observed in most of the PHC.

Data in table 2 reveals that the seven components of CHS were utilized effectively especially the ANC services with a mean score above the 3.0 criterion mean point, with the exception of exclusive breast feeding with mean score of 2.15. This finding is interesting and however contradicts the observation of NDHS (2003) which pointed out that lack of ANC services in most parts of the country particularly the northern regions and rural areas resulted in low tetanus toxoid immunization rate and consequently high prevalence of neonatal tetanus.

The finding in table 3 shows that the socio-economic factors were found to influence utilization of CHS. The findings are not unexpected and in support with World Bank (2002) which stated that some socio-economic factors were found to influence the utilization of CHS.

All the independent variables: maternal age, occupation, parity and educational attainment (table 4-7) were not statistically significant to utilization level of CHS. The findings were surprising and contradict the findings of Alakiji and Sofoluwe (1980) which showed an association between maternal age, occupation, parity and education attainment of mothers and the level of utilization of CHS.

Implication of the Study for Health Education

Health education is considered by many as the first and most important component of PHC. (Obionu, 2001). This is the most true of developing countries such as Nigeria and its rural settings where ignorance and socio-cultural practices such as superstition, food taboo and "ogbanje" system prevail. The findings of this study revealed that although all the available CHS are effectively utilized with the exception of exclusive breast feeding. By implication either directly or indirectly, under utilization of exclusive breast feeding pose a big threat to child survival as persistent high morbidity and mortality rate among children less than five years of age are blamed on malnutrition which underlie most childhood condition. This is still more to be done by means of information and education as there is need for effective use of CHS. There is need for all public health educators and other health professionals to involve themselves in all health education programmes targeted on child-bearing mothers (CBMs) to appreciate the need for effectively utilizing MCH services in order to educate mothers on the importance of exclusive breast feeding.

The findings of this were also that for immunization services, some vaccines were not readily available for use. This implies that those killer childhood diseases against which those vaccines are given will still continue to be a threat to child survival. This also calls for the government and donor agencies to ensure their availability, if childhood mortality will be curbed.

Availability of medical personnel in the neighbourhood identified as factor militating against effective utilization of CHS. This implies that something needs to be done about indiscriminate proliferation of private hospitals/clinics with inadequate facilities in Enugu urban. There is need for Enugu State Ministry of Health to check this trend to avoid confusion in health industry in Enugu state. This situation if allowed to continue without check will hamper the health of children under five years of age. Cultural beliefs was also identified as a factor militating against effective utilization of CHS is an indication that health education programmes in the PHC is not measuring up to expectation. There is need to address this issues of health education at PHC more seriously, bearing in mind the great benefit of CHS both to the nation and to the family.

The study also revealed that none of the independent variables studied had statistical significant relationship with the level of utilization of CHS. This can be explained in the light of mothers' values for children. The mothers no matter their status can go to any length to safeguard the health of their children.

Recommendations

On the basis of findings and conclusions of this study the following recommendations were made:

1. Community and hospital based health education programme should focus more attention on exclusive breast feeding campaign to educate mothers on the need of exclusive breast feeding and

also address cultural bias in infant feeding.

2. Government and non-governmental agencies in charge of vaccines should endeavour to produce and make them always available to the PHC facilities for use.
3. State government should ensure that private practitioners of health care services are duely registered and monitored. This will help to minimize quackery and ensure that qualified health personnel deliver health care services in the neighbourhood, where the mothers would always resort to CHS utilization.
4. Health workers in the community should be properly trained both on their duties and on their relationship to their clients to avoid scaring away mothers by their attitude.
5. Health education programme in the antenatal clinic should include and focus more on other child health services (Growth monitoring, ORT and Post natal check up) since the mothers make effective use of Antenatal service, it should be used as a contact point to get the attention of mothers to educate them on the need for use of other CHS.

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