UTILIZATION OF CHILD HEALTH SERVICES IN PRIMARY HEALTH CARE CENTRES IN NSUKKA HEALTH DISTRICT

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Abstract
The study was designed to determine the level of utilization of child health services in primary health care centres in Nsukka health district. Four specific objectives with corresponding research questions were posed and three hypotheses were postulated to guide the study. The study used the descriptive survey design with sample of 366 mothers. The instrument for data collection was questionnaire. Means and percentages were used to analyze the descriptive data, while t-Test and ANOVA statistics were used to test the hypotheses. Major finding of the study were as follows: Mothers utilized child health services effectively. There was no significant difference in the level of utilization of child health services according to level of education at .05. There was no significant difference in the level of utilization of child health services according to mothers' occupation. There was significant difference in the level of utilization of growth monitoring, nutritional services, curative services and immunisation services according to residential location of mothers. The researcher recommended that government should see that primary health centres are located equally in both urban and rural area and that health workers should strengthen their teaching on the utilization of all the components of CHs especially growth monitoring and curative services during antenatal visit.

Keywords: Utilization, Child Health Services, Primary health Care Centres.

Introduction

People seek to improve quality of life in both developed and developing countries. Incidentally most people in developing countries live in overcrowded houses with inadequate sanitation and unsafe water supply. Infectious diseases and malnutrition are common especially among children. Death rate is high and life expectancy is low. One explanation for poor health outcome among children is the non-use of available child health services by sizeable proportion of mothers. Haddad (2005) stated that the cost and utilization of health services in developing countries clearly showed that the utilization of available child health services is very low in developing countries. This, according to Haddad, is influenced by culture, economics, access, perceptions and lack of knowledge by mothers on existing child health services (CHs).

Child health services are an aspect of the health care delivery system established for the care of children. It is a services meant to ensure as much as possible that every child lives and grows up in a healthy environment and receives adequate nourishment for health living (Turmen, 2006). Hetch and Shiel (2006) described child health services as aspect of modern health care specifically designed for the health promotion of the child. William (2004) asserted that child health services are those aspects of medical services that provide essential health services to protect, promote and maintain health and wellbeing for each individual child up to school age. Child health services as used in this paper, refers to efficient strategies provided by health workers in health facilities in order to promote health of the child, and prevent diseases, disabilities and deaths in children through simple cost effective measures. These cost effective measures are immunization, ORT, dietary supplements and promotion of exclusive breast feeding. These are available for mothers to utilized for their children.

Utilization of specific services or actual coverage is expressed as the proportion of people in need of services who actually received it in a given period usually a year. Stewart and Sommerfelt (2004) described utilization as the patronage of health services by the target population or by the group whom the services are designed for. In the present study, utilization refers to extent to which available CHs are being put to use by mothers of child bearing age for their children. WHO (2005) reported that at the community level the extent of utilization of child health services will depend on community factors such as cultural values, beliefs, norms, ecology and locations among others things. Factors such as availability of these 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 child health services (CHs).

On the other hand, factors such as government policies and actions on healthy nutrition, population, health financing and expenditure, evaluation and monitoring will make a way for effective utilization. Other governmental policies such as infrastructure, transportation, energy, agriculture, water supply and sanitation can also influence the extent of use of child health services. The study considered education, occupation and location as factors that can influence the level of utilization of CHs in PHC centres in Nsukka Health District, Enugu State. Utilization level will determine whether the available CHs are ineffectively used or effectively utilized in primary health centres in Nsukka health district.

Primary health care centres are health care facilities providing promotive, preventive, curative and rehabilitative services to a community. They may be well built and equipped with adequate human and material resources and well-funded with tax payers' money (Lucas & Gills, 2006). Primary health care centres can be held responsible to account for improvement in child health care (Schor, 2004). They have to meet the health care standard and improving the provision of services for children must be integral to the plan. Primary health care centres as used in this study refers to as building or a place where health care services are provided for preventive, treatment and management of diseases and preservation of mental wellbeing through the services offered by the medical, nursing and allied health professions to the mothers to utilized for their children. The study sought to determine the level of utilization of child health services in primary health centres in Nsukka health district, Enugu State.

Purpose of the Study

The purpose of the study was to determine the level of utilization of child health services in primary health centres in Nsukka health district, Enugu State. Specifically, the study was to find out the:

1 level of utilization of child health services in PHC centres in Nsukka Health District,
2 level of utilization of child health services according to level of education,
3 level of utilization of child health services according to location,
4 level of utilization of child health services according to occupation,

Research Questions

To guide this present study, the following research questions were posed

1 What is the level of utilization of child health services by mothers in PHC centres in Nsukka Health District?
2 What is the level of utilization of child health services by mothers according to level of education?
3 What is the level of utilization of child health services by mothers according to occupation?

What is the level of utilization of child health services by mothers according to location?

Hypotheses

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

1 There is no significant difference in the level of utilization of child health services according to level of educational attainment of mothers of child bearing age.
2 There is no significant difference in the level of utilization of child health services according to mother's occupation.
3 There is no significant difference in the level of utilization of child health services according to mothers' residential location.

Method

To achieve the objective of this study, the descriptive survey design was employed. Descriptive survey design was suitable for the study because it involves observing and describing, the behaviour of participants without influencing it in any way. It involves describing, recording, analyzing and interpreting existing conditions. (Udo & Joseph, 2005).

The study was conducted in Primary Health Centres in Nsukka Health District, Enugu State. The population of the study comprised the mothers of child bearing age attending primary health care centres for child health services in Nsukka Health District, Enugu State. A sample of 366 mothers were used for the study. The instrument used for data collection was the researcher-structured questionnaire tagged "Utilization of Child Health Services Questionnaire consisted of two sections: A and B. Section A consisted of three items on socio-demographic variables of level of education of the mother, occupation and location. Section B consisted of 15 items designed to elicit information on level of utilization of CHs using 4-point scale. To categories utilization into effective and ineffective utilization of child health services the criterion group mean response value of 2.50 and above was considered effective utilization while those with group mean response value below 2.50 was considered ineffective. It was face validated by five lecturers from the Department of Human Kinetics Health and Education University of Nigeria, Nsukka. Using Cronbach's Alpha Statistic to determine the internal consistency of the instrument, index of .83 was obtained. Means, frequencies and percentages were used to answer the research questions while null hypotheses were tested using ANOVA and t-Test statistics.

Results

Table 1 shows the mean scores in the level of utilization of growth monitoring ($\overline{x}$ =2.63, SD=1.17), nutritional services ($\overline{x}$ =2.73, SD=.92), oral rehydration therapy ($\overline{x}$ =2.72, SD = 1.00), and immunization services ($\overline{x}$ =3.37, SD=.80). These means were greater than the criterion mean of 2.50. This implies that these services were effectively utilized by mothers

Table 1: **Level of Utilization of child health services (n = 361)**

	Child health services	$\overline{x}$ __	SD
	Growth monitoring		
1	Child weighing	3.23 **	1.044
2	Measurement of height	2.41 *	1.233
3	Measurement of mid-arm circumference	2.25 *	1.230
	Overall mean	**2.63 ** **	**1.17**
	Nutritional services		
4	Vitamin A supplement	2.73 **	.931
5	Micronutrient supplementation	2.44 *	1.002
6	Education on breast feeding	3.02 **	.830
	Overall mean	**2.73 ** **	**0.92**
	Curative services		
7	Physical examination	2.98 **	.830
8	Laboratory examination	1.92 *	1.123
9	Treatment of ailment	3.17 **	.925
	Overall mean	**2.69 ** **	**0.96**
	Oral rehydration therapy		
10	Oral rehydration sachet	2.52 **	1.157
11	Education on salt, sugar solution	2.82 **	.917
12	Education on use of available home fluid	2.83 **	.913
	Overall mean	**2.72 ** **	**1.00**
	Immunization		
13	Needed vaccine	3.40 **	.762
14	Documentation	3.39 **	.850
15	Health education	3.31 **	.823
	Overall mean	**3.37 ** **	**0.81**
	Grand mean	**2.83 ** **	**0.92**

Key

**** Effective utilization**

***Ineffective utilization**

Table 2: **Level of Utilization of CHs According to the Mothers Educational Level of Attainment**

	Child health services	**Non-formal education (n=25)**		**Primary education (n=88)**		**Secondary education (n=40)**		**Tertiary education (n=108)**	
		$\overline{X}_1$	SD_1	$\overline{X}_2$	SD_2	$\overline{X}_2$	SD_3	$\overline{X}_4$	SD_4
	Growth monitoring								
1	Child weighing	3.76	.523	3.19	1.123	3.20	1.054	3.19	1.034
2	Measurement of height	3.16	1.068	2.53	1.193	2.41	1.258	1.12	1.190
3	Measurement of mid-arm circumference	2.80	1.258	2.30	1.224	2.34	1.256	1.99	1.148
	Overall mean	**3.24**	**0.95**	**2.67**	**1.18**	**2.65**	**1.15**	**2.43**	**1.13**
	Nutritional services								
4	Vitamin A supplement	3.08	.997	2.55	.921	2.74	.0910	2.78	.931
5	Micronutrient supplement	2.76	1.012	2.52	1.028	2.34	1.009	2.44	.960
6	Education on breast feeding/weaning diet	3.04	.889	3.00	.788	3.11	.778	2.90	.896
	Overall mean	**2.96**	**0.97**	**2.69**	**0.91**	**2.73**	**0.90**	**2.71**	**0.93**
	Curative services								
7	Physical examination	2.88	1.092	3.02	.830	2.92	.823	3.06	.771
8	Laboratory examination	2.80	1.000	1.82	1.078	1.96	1.184	1.75	1.015
9	Treatment of ailment	2.68	1.108	3.17	.985	3.21	.846	3.24	.906
	Overall mean	**2.79**	**1.01**	**2.67**	**0.96**	**2.70**	**0.95**	**2.68**	**0.90**
	Oral rehydration therapy								
10	Oral rehydration sachet	2.76	1.128	2.40	1.180	2.51	1.172	2.56	1.150
11	Education on salts, sugar solution	2.68	1.145	2.67	.931	2.91	.877	2.86	.891
12	Education on use of available home fluid	2.56	1.044	2.78	.964	2.85	.881	2.92	.877
	Overall mean	**2.67**	**1.11**	**2.62**	**1.03**	**2.76**	**0.98**	**2.78**	**0.97**
	Immunization services								
13	Needed vaccine	3.00	1.080	3.45	.710	3.43	.711	3.42	.763
14	Documentation/recording note	2.88	1.236	3.78	.875	3.44	.789	3.46	.766
15	Health education or talk on immunization	3.04	1.098	3.16	.933	3.38	.754	3.42	.712
	Overall mean	**2.97**	**1.14**	**3.33**	**0.84**	**3.42**	**0.75**	**3.43**	**0.75**
	Grand mean	**2.93**	**1.03**	**2.80**	**0.98**	**2.85**	**0.95**	**2.81**	**0.9**

Table 2 shows the cluster mean scores of mothers with no formal education ($\overline{X}$ =3.24) primary education ($\overline{X}$ = 2.67), secondary education ($\overline{X}$ = 2.65) and tertiary education ($\overline{X}$ =2.43) which were above the criterion mean of 2.50 except that of mothers with
tertiary education ($\overline{X}$ =2.43). This implies that growth monitoring was effectively utilized by mothers of all levels of education except mothers with tertiary education who utilized growth monitoring ineffectively.

Table 3: **Level of Utilization of CHs According to Mothers Occupation**

	Child Health Services	**Farming (n=24)**		**Trading (n= 76)**		**Public/civil servant (n=114)**		**Cloth weaving/hair dressing (n=837)**		**House wife (n=45)**		**Student (n=15)**	
		$\overline{X}_1$	SD_1	$\overline{X}_2$	SD_2	$\overline{X}_2$	SD_3	$\overline{X}_4$	SD_4	$\overline{X}_5$	SD_5	$\overline{X}_6$	SD_6
	Growth monitoring												
1	Child weighing	3.17	1.090	3.07	1.100	3.40	.919	3.17	1.102	3.56	.841	2.47	1.090
2	Measurement of height	1.87	1.116	2.28	1.162	2.47	1.228	2.61	1.267	2.51	1.272	1.80	1.116
3	Measurement of mid-arm circumference	1.87	1.154	2.16	1.108	2.36	1.284	2.33	1.270	2.33	1.264	1.93	1.154
	Overall mean	**2.30**	**1.12**	**2.50**	**1.12**	**2.74**	**1.14**	**2.70**	**1.21**	**2.80**	**1.13**	**2.06**	**1.08**

	Nutrition												
4	Vitamin A supplement	2.62	1.013	2.61	.834	2.77	.922	2.80	.907	2.89	1.092	2.33	.816
5	Micronutrient supplement	2.04	.999	2.28	.944	2.57	1.039	2.43	.990	2.80	.869	1.93	.799
6	Education on breast feeding/weaning diet	2.83	.963	3.00	.800	3.12	.822	3.00	.781	2.84	.928	3.00	.655
	Overall mean	**2.49**	**0.99**	**2.63**	**0.87**	**2.82**	**0.93**	**2.74**	**0.89**	**2.84**	**0.96**	**2.45**	**0.76**
	Curative services												
7	Physical examination	2.87	.992	2.96	.662	3.02	.872	2.95	.779	2.96	.999	3.13	.834
8	Laboratory examination	2.00	1.216	1.99	1.113	1.95	1.120	1.93	1.145	1.69	.996	1.93	1.335
9	Treatment of ailment	3.17	.917	3.33	.737	3.29	.849	3.08	.913	2.73	1.250	3.40	.828
	Overall mean	**2.68**	**1.04**	**2.76**	**0.84**	**2.75**	**0.95**	**2.65**	**0.95**	**2.46**	**1.08**	**2.82**	**1.00**
	Oralrehydration therapy												
10	Oral rehydration sachet	2.21	1.141	2.47	1.160	2.66	1.151	2.41	1.148	2.64	1.151	2.40	1.242
11	Education on use of salt sugar solution	2.75	.897	2.84	.910	2.89	.890	2.89	.950	2.56	.918	2.60	.986
12	Education on continuous breast feeding and use of available home fluid	2.75	.897	3.01	.825	2.78	.938	2.87	.974	2.64	.908	2.67	.976
	Overall mean	**2.57**	**0.98**	**2.77**	**0.97**	**2.78**	**0.99**	2.72	**1.01**	**2.61**	**1.99**	**2.55**	**1.07**
	Immunization												
13	Needed vaccine	3.29	.751	3.37	.814	3.46	.718	3.36	.758	3.40	.863	3.47	.640
14	Documentation recording note	3.21	.977	3.37	.936	3.39	.837	3.35	.778	3.47	.894	3.60	.632
15	Health education or talk on immunization	3.50	.722	3.46	.807	3.25	.847	3.33	.816	3.20	.894	3.40	.632
	Overall mean	**3.33**	**0.82**	**0.85**	**0.85**	**3.37**	**0.80**	**3.31**	**0.78**	**3.36**	**0.88**	**3.49**	**0.63**
	Grand mean	**2.67**	**0.99**	**2.81**	**0.93**	**2.89**	**0.96**	**2.82**	**0.96**	**2.81**	**1.21**	**2.67**	**0.91**

The table further shows the grand mean score of mothers with no formal education ($\overline{x}$ = 2.93), secondary education ($\overline{x}$ = 2.85), tertiary education ($\overline{x}$ = 2.81) and primary education ($\overline{x}$ =2.80) which were greater than the criterion mean of 2.50. This implies that child health services were effectively utilized by mothers of all level of education.

Table 3 indicated the grand mean scores of mothers who were students ($\overline{x}$ = 2.67), traders ($\overline{x}$ = 2.81), public/civil servants ($\overline{x}$ = 2.89), house wives ($\overline{x}$ = 2.81), farmers ($\overline{x}$ =2.67) and cloth weaving/hair dressers ($\overline{x}$ = 2.82) which were above criterion mean of 2.50. This implies that child health services were effectively utilized.

Table 3 further revealed that mothers who were farmers and students utilized growth monitoring services (farmers $\overline{x}$ = 2.30, students $\overline{x}$ = 2.06) and nutritional services (farmers $\overline{x}$ = 2.49, students $\overline{x}$ = 2.45) ineffectively since their cluster mean values were below the criterion mean of 2.50. The table again shows that mothers who were housewives ($\overline{x}$ = 2.46) utilized curative services ineffectively since the cluster mean value is below the criterion mean of 2.50.

Table 4: **Level of Utilization of CHs by Mothers According to Location**

		Urban (n=208)		**Rural (n=153)**	
	Child health services	$\overline{x}$	SD	$\overline{x}$	SD
	Growth monitoring				
1	Child weighing	3.54	.797	2.81	1.185
2	Measurement of height	2.61	1.266	2.14	1.136
3	Measurement of mid-arm circumference	2.48	1.262	1.95	1.120
	Overall mean score	**2.88**	**1.108**	**2.30**	**1.147**
	Nutritional services				
4	Vitamin A supplement	2.79	.912	2.63	.951
5	Micronutrient supplement	2.60	.943	2.23	1.042
6	Education on breast feeding/weaning diet	3.12	.796	2.88	.850
	Overall mean	**2.84**	**0.88**	**2.58**	**0.95**
	Curative services				
7	Physical examination	3.09	.820	2.84	.823
8	Laboratory examination	2.22	1.178	1.52	.904
9	Treatment of ailment	3.22	.942	3.11	.900

	Overall mean	**2.84**	**0.98**	**2.49**	**0.88**
	Oral rehydration therapy				
10	Oral rehydration sachet	2.61	1.166	2.39	1.136
11	Education on use of salt sugar solution	2.86	.955	2.77	.862
12	Education on continuous breast feeding and use of available home fluid	2.93	.947	2.66	.836
	Overall mean	**2.81**	**1.02**	**2.61**	**0.94**
	Immunization				
13	Needed vaccine	3.50	.709	3.27	.813
14	Documentation recording note	3.45	.833	3.31	.864
15	Health education or talk on immunization	3.36	.857	3.25	.772
	Overall mean	**3.44**	**0.80**	**3.28**	**0.82**
	Grand mean scores	**2.96**	**0.96**	**2.65**	**0.95**

Table 4 shows that mothers utilized growth monitoring services (urban $\overline{X}$ = 2.88, rural $\overline{X}$ = 2.30) and curative services (urban $\overline{X}$ = 2.84, rural $\overline{X}$ =2.49) effectively in urban PHCs since their cluster mean values were above the criterion mean of 2.50 while those in rural

PHCs utilized them ineffectively since their cluster mean value were below the criterion mean of 2.50. The table further reveals that both urban and rural mothers in PHCs utilized nutritional services (urban $\overline{X}$ = 2.84, rural $\overline{X}$ = 2.58) oral rehydration therapy (urban $\overline{X}$ = 2.81, rural $\overline{X}$ = 2.61) and immunization services (urban $\overline{X}$ = 3.44, rural $\overline{X}$ = 3.28) effectively since their cluster mean values were above the criterion mean of 2.50.

Table 5: **Summary of ANOVA in the Level of Utilization of Child Health Services According to Level of Education.**

S/N	Utilization of CHs	Source of variation	Sum of squares	d.f.	Mean square	F	p-value
1	Growth monitoring	Between group	123.837	3	41.279	4.828	.003 **
		Within group	3052.163	357	8.459		
		Total	**3176.000**	**360**			
2	Nutritional services	Between group	13.875	3	4.625	1.264	.287 *
		Within group	130.690	357	3.660		
		Total	**1320.565**	**360**			
3	Curative services	Between group	2.553	3	.851	.216	.885 *
		Within group	1404.117	357	3.933		
		Total	**140.670**	**360**			
4	Oral rehydration therapy	Between group	14.262	3	4.754	1.017	.385 *
		Within group	1669.670	357	4.675		
		Total	**1683.352**	**360**			
5	Immunization services	Between group	42.910	3	14.303	3.296	.021 **
		Within group	1549.090	357	4.339		
		Total	**1592.000**	**360**			

Key: ** Significant
*** Not significant**

The Table 5 shows the calculated F-value with their corresponding P-values for growth monitoring (F= 4828, p = .003 < 0.05) and immunization service (F = 1.264, p = .021 < .05). Since their P-value were less than .05 level of significance at 3 and 357 degrees of freedom the null

hypothesis of no significance difference was therefore rejected. This implies that the level of utilization of growth monitoring and immunization services by mothers in PHCs differed according to their level of education. The table further shows the F-value with their corresponding P-value for nutritional services (F = 1.264, p = .287 > .05), curative services (F = .216, p = .885 > 0.05) and oral rehydration therapy (F=1.017, P=.385>.05). Since the P-values were greater than .05 level of significance at 3 and 357 degrees of freedom. The null hypothesis of no significant difference in the level of utilization of child health services according to level of education was accepted. This implies that there was no significant difference in the level of utilization of nutritional service, curative services, and oral rehydration therapy by mothers of different level of education.

Table 6: **Summary of ANOVA in the level of utilization of Child Health Service According to Mother's Occupation.**

S/N	Utilization of CHs	Source of variation	Some of squares	d.f.	Mean square	F	p-value
1	Growth monitoring	Between group	108.160	6	18.027	2.080	.055 *
		Within group	3067.840	354	8.666		
		Total	**3176.000**	**360**			
2	Nutritional services	Between group	46.737	6	7.790	2.165	.046 **
		Within group	1273.828	354	3.598		
		Total	**1320.566**	**360**			
3	Curative services	Between group	32.689	6	5448	1.404	.212 *
		Within group	1373.981	354	3.881		
		Total	**1406.670**	**360**			
4	Oral rehydration therapy	Between group	22.993	6	3.832	.817	.557 *
		Within group	1660.359	354	4.690		
		Total	**1683.352**	**360**			
5	Immunization services	Between group	16.040	6	2.673	.600	.730 *
		Within group	1575.960	354	4.452		
		Total	**1592.000**	**360**			

Key

**** Significant**

*** Not significant**

Table 6 shows the F-values with their corresponding P-value for growth monitoring services (F-cal = 2.080, p-value = .055 > .05), curative services (f = 1.404, P = .212), oral rehydration therapy (F = .817, P = .557). Since their P-values were greater than .05 level of significance at 6 and 354 degrees of freedom, the null hypothesis of no significant difference in level of utilization of child health services according to occupation was accepted. This implies that the level of utilization of growth monitoring services, curative services and oral rehydration therapy in PHCs by mothers of different occupation was the same.

The table further reveals the F-value with its corresponding P-value for nutritional services (F-Cal = 2.165, P-value = .046) which is less than .05 level of significance at 6 and 354 degrees of freedom. Hence, the null hypothesis of no significant difference in the level of utilization of child health services according to occupation was rejected. This implies that level of utilization of CHs in PHCs by mother of different occupation were not the same.

Table 7: **Summary of t-Test Analysis of no Significance Difference in Level of Utilization of CHs According to Location.**

		Urban (n=205)		**Rural (n= 153)**				
S/N	**CHs**	$\overline{X}$	**SD**	$\overline{X}$	**SD**	**t-Cal**	**d.f.**	**P-value**
1	Growth monitoring	8.62	2.749	6.90	2.984	5.678	359	.000
2	Nutritional services	8.51	1.862	7.75	1.904	3.818	359	.000
3	Curative services	8.53	2.073	7.47	1.659	5.206	359	.000
4	Oral rehydration	8.43	2.304	7.82	1.904	2.697	359	.007
5	Immunization services	10.31	2.027	9.83	2.179	2.143	359	.033
	Cluster mean score	**8.88**	**2.202**	**7.95**	**2.126**	**3.908**	**359**	**0.008**

Table 7 shows the calculated t-values with their corresponding p-values for growth monitoring ($t = 5.678$, $p = .000 < .05$), nutritional services ($t = 3.818$, $p = .000 < .05$), and curative services ($t = 5.206$, $p = .000 < .05$). Since the p-value were less than .05 level of significance at 359 degrees of freedom, the null hypothesis of no significant difference in level of utilization of CHs is therefore rejected. This implies that the level of utilization of all the CHs in PHCs differed according to location.

Discussion

Result in Table 1 shows that child health services were effectively utilized by mothers' in PHC centres. This finding was expected and therefore not surprising. This is because these mothers' might have been attending antenatal clinics where trained nurses and mid wives taught them the need for proper child caring and upbringing. This finding is inconsonance with that of Nteta et al (2010) who stated that there was effective utilization of CHs in PHC centers by mothers' who were attending them.

The finding in Table 2 revealed that the level of utilization of CHs by mothers with no formal education in PHC centers was effective. This was a surprise because Rockvill (2004) reported that people with higher levels of education had more knowledge and positive attitude towards child health. They were likely to be healthier. The author added that better educated mothers were more knowledgeable of health problems and knew more about availability of health care services and use this information more effectively to maintain or achieve good health status. The finding may be so due to the fact that most educated mothers are gainful employed and they may be busy in their workplace. Therefore, they may find it difficult or stressful to go to health centres for child health services.

Finding in Table 3 shows that the level of utilization of CHs by mothers who were public servants was effective. The finding was not surprising and therefore it was expected because mothers with high income should utilize CHs effectively than low income earners. Olise (2001) stated that income has a positive effect on utilization of modern health services. They observed that mothers who are employed are more likely to utilize modern health care services to treat complication in children. The finding is in consonance with the finding of Simoe (2005) who reported that high rates of utilization were found for the categories of top management executive position and skill workers while unskilled workers, trainees, students and housewives used less of child health services.

The results in Table 4 revealed that mother in both urban and rural PHC centers effectively utilized CHs. This finding is not surprising because Nteta et al (2010) and Vijaya (2008) found that people utilized health services if the facilities are available and accessible to them. The table also revealed that growth monitoring and curative services were effectively utilized in rural PHC centers. The finding was not surprising because Vogl (2004) reported that immunization services and diarrhea management were adequate in PHC centers while supply of essential drugs and facilitates for emergency treatment were inadequate and these influenced the rate of the utilization of services. Barlow and Proschan (2002) stated that there is positive relationship between adequacy of services and utilization.

Result in Table 5 revealed that there was no significant difference in the level of utilization of nutritional services, curative services and oral rehydration therapy according to level of education. This finding is surprising and not anticipated because mothers of high educational attainment are

expected to utilized CHs effectively. The reason may be that those mothers have received health education on the available CHs and its importance in child growth and development. The finding disagrees with the findings of Simoe (2005) and Vogi (2004) which showed that prompt accessing of child health services is positively correlated with educational level.

Result in Table 6 indicted that there was no significant difference in the level of utilization of child health services (growth monitoring, curative services, oral rehydration and immunization services) according to mother's occupation. This finding was a surprise because occupation of any given group of individual is expected to positively influence their level of utilization of health services. This finding disagrees with that of Rockville (2006) who reported that the higher the level of income of a mother the higher the rate of utilization of health services. The reason may be that most of the child health drugs/treatment are free and available at low cost services in primary health care centers.

There were significant differences in the level of utilization of nutritional services according to occupation. This finding was expected and therefore not a surprise. Experience has shown that high income earners tend to utilize health services more than low income earner. This finding was in line with that of Simoe (2005) who reported that the type and status of employment has effect on mothers' utilization of health services. Women's involvement in gainful employment is one of the factors that positively affect the use of quality medical care to treat complication in their children.

Result in Table 7 revealed that there was significant difference in the level of utilization of CHs according to mothers' residential location. This finding is not surprising because Olise (2001) showed that location had major influence on the utilization of health services. Concentration of health facilities in urban centers hampered rural dwellers accessibility and utilization of health facilities. This finding is in line with that of Haddah (2005) who reported that geographical location hinder utilization of child health services and Utilization of child health services are lower among rural dwellers who have no access to health facilities than urban dwellers.

Conclusion

Base on the findings and discussion of the study, the following conclusions were attained. Child health services were effectively utilized by mothers in PHC centres. Mothers of different occupations utilized CHs effectively. There was no significant difference in the level of utilization of child health services according to level of education. There was no significant difference in the level of utilization of child health services according to mother's occupation. There was significant difference in the level of utilization of CHs according to location.

Recommendations

Based on the findings of this study the following recommendation was drawn.

1 Government should provide free and compulsory education for the girl child to enable them acquires education up to secondary level so as to widen their scope in all sphere of life including health issues such as child health services.
2 Health educators, institutions and other health professional should design better educational strategies to increase the level of awareness and utilization of child health services.

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