

Knowledge and Practice of Child Survival Strategies among Mothers Attending Postnatal Clinic in Itu, a Sub-Urban Area of South Nigeria

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ABSTRACT

Background: Adequate knowledge and effective practice of child survival strategies play significant role in combating the twin malady of child morbidity and mortality, especially among the under five years old children.

Objective of this study was to assess the knowledge and practice of child survival strategies among mothers seen at the postnatal clinic of primary health centre, Itu, South-South Nigeria.

Methodology: It was a cross-sectional descriptive study involving 296 mothers who attended the postnatal Clinic of Primary Health Centre, West Itam, Itu, a suburban area of South-South Nigeria between March and July, 2019. Semi-structured questionnaire was used to obtain data from the respondents on socio-demographic characteristics, knowledge of child survival strategies (CSS), source of knowledge and practice of CSS. The data was analyzed with SPSS version 22.0.

Results: The age of the respondents ranged from 15-49 years with mean and standard deviation of 28.18±7.07 years. Results showed that most of the respondents (87.5%) were of lower reproductive age (≤35years), 88.5% had low monthly income (≤50,000) while 88.51 were of lower parity (para ≤4). Most of the mothers had adequate knowledge of CSS including 69.57% (growth monitoring), 67.90% (oral rehydration therapy) and 79.39% (exclusive breastfeeding). Also most of the respondents obtained information on CSS from health workers (85.13%). However, the actual practice of most of the components of CSS was poor as only 26.69%, 37.5% and 42.24% practiced growth monitoring, oral rehydration therapy and exclusive breastfeeding respectively. Although most of the mothers who practiced CSS were of higher educational status (secondary and tertiary education), there was no statistical significant association between educational status and the practice of any of the components of CSS.

Conclusion: Most of the mothers in the study had knowledge of CSS while the percentage that practiced CSS was few. We recommend a more intensive public awareness and enlightenment campaign among mothers of under five children to stimulate them on the importance of practice of CSS as a panacea to averting child morbidity and mortality.

Key Words: Knowledge and practice, child survival strategies, mothers, south Nigeria.

INTRODUCTION

Child survival strategies are a set of low cost activities and practices undertaken by individuals, community, organization, government at all levels, nations and the United Nations at large, with the aim of improving the health status of under five children, thereby enhancing their survival. [1-3] These strategies have been found to constitute high impact, easily adaptable interventions that significantly reduce child

morbidity and mortality globally since the introduction of CSS as components of child survival development revolution in the 1980's. [2,4,5] The interventions and activities that constitute child survival strategies have been represented with the acronyms GOBIFFETHE (growth monitoring, oral rehydration therapy, breast feeding, immunization, food fortification, female education, family planning, environmental sanitation, treatment of common injuries,

health education and essential drug list. [2,5,6] Other activities and practices that can also impact positively on the health of under five children thereby enhancing their survival include integrated management of childhood illness (IMCI), use of insecticide treated bed nets (ITN), other preventive measures and prompt treatment of malaria (roll Back Malaria), de-worming of children, safe drinking water, micronutrient supplementation, complementary and improved infant and young child feeding practices, ante-natal booking and supervised deliveries of mothers. [5-8] These strategies, which are important public health concerns, aimed at improving child wellbeing; have the overall benefits of enhancing the growth, development and survival of under five children, when practiced efficiently, hence its adoption by the WHO, UNESCO, UNICEF and the USAID. [2,5,9,10]

Even with the overall benefits accruing from child survival strategies, it has been shown that in some settings the practice of CSS is poor especially in the developing countries, due to poverty and ignorance, leading to high rate of child morbidity and mortality. According to UNICEF data 2018, even though under five mortality had reduced from 213/1000 in 1990 to 104/1000 in 2016, it is documented that about 5.8million under five children died across the globe in 2016, with 15,000 dying daily, most of which occurred in sub-Saharan Africa and Asia. [11] Also six countries account for almost half of the global under five mortality rate namely India, Nigeria, Parkistan, DRC (Democratic Republic of Congo), Ethiopia and China. [11,12] Moreover the WHO statistics in Africa shows that West African countries experience under five mortality up to twice higher than neighbouring countries in northern and southern Africa. [11-13] According to the state of the Nigeria children report 2015, about 2,300 under five children die daily in Nigeria, thereby making Nigeria the second contributor to global child mortality. [6,14] It has been avered that the non attainment of the

erstwhile Millennium Development Goal 4 (MDG4) could partly be due to poor implementation of the components of child survival strategies, especially in sub-Saharan Africa. [9,15] The high morbidity and mortality associated with the critical age of under five children can be averted with appropriate practice and implementation of the various components of child survival strategies. This study therefore aimed at assessing the knowledge and practice of the various components of child survival strategies among mothers of under five year old children seen at a postnatal clinic of primary healthcare centre of a sub-urban area of south-south Nigeria. This seems to be a pioneer study on knowledge and practice of CSS as literature search reveals that there has been no previous study on CSS in a primary health centre in Akwa Ibom State. It is hoped that findings from this study will enrich the literature pool on this subject and form the basis for further studies on child survival strategies in other settings.

METHODOLOGY

Study Area: The study was conducted at the postnatal clinic of primary health centre, West Itam, Itu local government area of Akwa Ibom State, South-South Nigeria. The facility is located at latitude 7°9'03.63, 5°05'26, north 5°03'10.2503 and 7°04'13.1890¹ east in West Itam. It covers 10 settlements, with a population of 32,899 and it is one of the maternal and child health centres in the state. The postnatal clinic runs from Mondays to Fridays from 8am to 4pm except on public holidays.

Study Design: This was a cross-sectional descriptive study that involved 296 mothers who presented at the postnatal clinic of the facility for postnatal check up between March and July 2019.

Sample Selection: A total of 296 mothers who presented at the facility during the period of the study were selected for the study, using the formula: [16]

$$M = \frac{Z^2 P(1-P)}{d^2}$$

where: z = confidence level at 95 (standard value of 1.96%), at d = 5% acceptable margin of error (standard value at 0.05) p = prevalence of mothers with knowledge of child survival strategies in southern Nigeria. [2]

Substitution in the above formula gives 296 (in the nearest 10). A non-probability consecutive sampling technique was used to select the respondents. The inclusion criteria were all consenting mothers who attended the postnatal clinic during the period of the study. The exclusion criteria were non-consenting subjects as well as those postpartum women who were too ill.

Data Collection: A pretested semi-structured questionnaire was used to collect data from the respondents by the author and trained research assistants, after appropriate explanation of the purpose of the study was made, and verbal consent obtained from the respondents. The few respondents who had no formal education were assisted by the trained assistants in the use of local dialect. The data contained in the questionnaires include socio-demographic characteristics, knowledge of CSS, sources of information on CSS and practice of child survival strategies.

Data Analysis: Data from the study were analyzed with SPSS version 22.0. The percentage of independent and dependent variables were determined. Level of statistical significance was set at $P < 0.05$. Tables were used to display data distribution as appropriate.

Ethical Consideration: Data for the study were collected based on the Declaration of Helsinki. Verbal consent was obtained from the respondents. Permission was also obtained from administrative head of the facility before commencement of the study.

RESULTS

The sociodemographic characteristics of the respondents are shown in table 1.

Majority of the respondents, 87.5%, were of younger reproductive age (≤ 34 years), most of them, 88.51%, were of secondary and tertiary education (higher education), 89.5% were married, 59.12% were employed, greater percentage, 56.76%, were of lower income level while most of them, 56.42%, were of lower parity (para 1-2).

Table 2 shows knowledge of child survival strategies among the respondents. Most of the respondents had good knowledge of child survival strategies of shown by 69.52% (growth monitoring), 67.9% (oral rehydration therapy), 79.39% (exclusive breastfeeding), 77.03% (childhood immunization) and 57.43% (prevention and prompt treatment of malaria), in addition to knowledge of other components of CSS. The sources of information on CSS are shown on table 3. Most of the mothers obtained information on CSS from health workers while 14.86% got the information from the media. The practice of CSS among the mothers is shown on table 4. Most of the components of CSS were practiced poorly by the respondents as seen in 26.69% (growth monitoring) 37.50% (ORT), 42.24% (exclusive breastfeeding) and 33.45% (family planning). However, most of the respondents practiced use of micronutrient supplementation (54.05%), use of ITN (55.07%) and prompt treatment of common injuries (62.16%).

Table 5 shows association between educational status of the mothers and the practice of CSS. It shows that most of the mothers who practiced CSS were of higher educational status (secondary and tertiary education) such that 70.0%, 98%, 88.28%, 88.32%, 88.8% of those who practiced growth monitoring, ORT, exclusive breastfeeding, complete childhood immunization and family planning respectively were of higher educational status. There was however no significant statistical association between educational status and practice of CSS.

Table 1: Sociodemographic Characteristics of the Respondents

Characteristics	Frequency (n=296)	Percentage (%)
Age (years):		
15 – 24	86	29.05
25 – 34	173	58.45
35 – 44	27	9.12
≥45	10	3.38
Residence:		
Urban	187	63.18
Rural	109	36.82
Educational Status:		
No formal education	10	3.38
Primary education	24	8.11
Secondary education	116	39.19
Tertiary education	146	49.32
Currently Married:		
Yes	265	89.53
No	31	10.47
Occupation:		
Unemployed	121	40.88
Civil servant	48	16.22
Trading	82	27.70
Farming	38	12.84
Artisan	7	2.36
Family Income Level (₦):		
10,000 – 49,000	168	56.76
50,000 – 99,000	86	29.05
≥100,000	42	14.19
Ethnic Group:		
Ibibio/Annang/Oron	184	62.16
Efik	48	16.22
Igbo	15	5.07
Yoruba	11	3.72
Hausa/Fulani	30	10.13
Others (unspecified)	8	2.270
Religion:		
Christianity		
Islam	263	88.85
Parity:		
1 – 2	33	11.15
3 – 4	167	56.42
≥5	95	32.09
	34	11.49

Table 2: Knowledge of Child Survival Strategies among the mothers

Characteristics	Frequency (n=296)**	Percentage (%)
Growth monitoring	206	69.59
Oral rehydration therapy	201	67.90
Exclusive breastfeeding	235	79.39
Childhood immunization	228	77.03
Family planning	173	58.45
Iodine fortification	160	54.05
Vitamins A, D and multivitamin supplementation	190	64.19
Health education	163	55.07
Use of essential drugs	163	55.07
Environmental sanitation	201	67.90
Deworming	204	68.92
Use of Insecticide Treatment (ITN)	207	69.93
Treatment of common injuries	194	65.54
Prevention and prompt treatment of malaria	170	57.43

**Most of the women had knowledge of most of the child survival strategies (CSS)

Table 3: Sources of Knowledge of Child Survival Strategies (CSS)

Sources of Knowledge	Frequency (n=296)**	Percentage (%)
Health workers	252	85.13
Relations	68	22.97
Friends	88	29.73
Social media	66	22.30
Radio/Television	78	26.35
Newspaper	44	14.86
Church	99	33.45
School	82	27.70

**Some respondents obtained information from more than one source.

Table 4: Practice of Child Survival Strategies

Characteristics	Frequency (n=296)	Percentage (%)
Child survival strategies practiced:		
Growth monitoring	79	26.69
Oral rehydration therapy	11	37.50
Exclusive breastfeeding	128	42.24
Complete immunization	137	46.28
Family planning	99	33.45
Food fortification with iodine	160	54.05
Multivitamins		
Supplementation	102	34.46
Use of essential drugs	126	42.57
Environmental sanitation	145	48.99
Deworming	105	35.47
Use of Insecticide Treated Net (ITN)	163	55.07
Prompt treatment of common injuries	184	62.16
Other prevention and prompt treatment of malaria	111	37.50

TABLE 5: Association between mother's educational status and practice of child survival strategies (CSS)

CHARACTERISTICS	PRACTICE OF CSSS		STATISTICAL TEST
	Yes N(%)	No N(%)	
Educational Level:	Growth monitoring		X ² = 0.001
Lower level	9(11.39)	25(11.5)	DF = 1
Higher level	70(88.61)	192(88.48)	P = 0.976
Educational Level:	Oral Rehydration Therapy		X ² = 0.009
Lower level:	13(11.71)	21(11.35)	DF = 1
Higher level	98(88.22)	164(88.65)	P = 0.925
Educational Level:	Exclusive Breastfeeding		X ² = 0.012
Lower level	15(11.72)	19(11.31)	DF = 1
Higher level	113(88.28)	149(88.69)	P = 0.913
Educational Level:	Complete Immunization		X ² = 0.0009
Lower level	16(11.68)	18(6.87)	DF = 1
Higher level	121(88.32)	141(93.13)	P = 0.923
Educational Level:	Food Fortification		X ² = 0.019
Lower level	18 (12.68)	16(11.76)	DF = 1
Higher level	142(87.32)	120(88.23)	P = 0.890
Educational Level:	Multivitamin Supplementation		X ² = 0.012
Lower level	12(11.76)	22(11.34)	DF = 1
Higher level	90(88.24)	172(88.66)	P = 0.913
Educational Level:	Family Planning		X ² = 0.021
Lower level	11(11.11)	23(11.67)	DF = 1
Higher level	88(88.89)	174(88.33)	P = 0.886
Educational Level:	Environmental Sanitation		X ² = 0.016
Lower level	17(11.72)	17(11.04)	DF = 1
Higher level	128(88.28)	134(88.96)	P = 0.900
Educational Level:	De-worming		X ² = 0.082
Lower level	12(11.43)	24(12.56)	DF = 1
Higher level	93(88.57)	167(87.44)	P = 0.775
Educational Level:	Prevention and Prompt Treatment Of Common Injury		X ² = 0.304
Lower level	12(10.81)	24(12.97)	DF = 1
Higher level	99(88.19)	161(87.03)	P = 0.582
Educational Level:	Prevention and Prompt Treatment of Malaria		X ² = 0.009
Lower level	13(11.71)	21(11.35)	DF = 1
Higher level	98(88.29)	164(88.65)	P = 0.925

DISCUSSION

This study has shown adequate knowledge of CSS among majority of mothers who presented at the postnatal clinic of PHC, Itu, a sub-urban area of south-south Nigeria. This finding is similar to findings by Enoidem, [17] et al, in another setting in south-south Nigeria, in which most of the women had knowledge of the CSS. This is however higher than findings from Abimbola, et al, [2] in western Nigeria.

The adequate knowledge of CSS among majority of mothers in the study could be attributed to higher educational status among the respondents. From the socio-demographic variables shown in the study, most of the respondents had higher education status (secondary and tertiary education) and there is a positive correlation between educational status and information availability including health education. [18-21] This re-emphasizes the importance of girl-

child education in the society as a prerequisite for healthy motherhood and family.

Most of the respondents in the study obtained information on CSS from health workers. This agrees with findings from several other studies, [1,2,17,22] and places much more responsibility on health workers to continue to embark on health education of the populace and dissemination of information on CSS among women of child bearing age.

On the practice of components of CSS, the study shows that apart from food fortification, use of ITN and prompt treatment of common injuries in which greater percentage of the respondents practiced, other components of CSS were practiced by lesser percentage of the mothers. This is similar to findings by Ambimbola, [2] et al in a study done in a local community in western Nigeria, in which only 17.6% of the mothers practiced child survival strategies. However, the practice of ORT, exclusive breastfeeding, environmental sanitation, family planning and complete childhood immunization in this study was higher than the national prevalence rate of these components of CSS. [23-26] Also, the use of ITN in the study was similar to national prevalence rate and finding, by Orji, et al at Abakiliki, south east Nigeria. [27]

Finally, the study shows that most of the mothers who practiced all the components of CSS were of higher educational status (secondary/tertiary education). This is not surprising considering the fact that the setting where the study was done (Akwa Ibom State) is one of the educational advantaged states of the federation, even though there was no statistical significant association between educational status and practice of CSS. This again reemphasizes the need to sustain girl-child education programme at all levels of education.

CONCLUSION

The study has shown that while most of the mothers who attended the postnatal clinic of Health Centre, Itu, a sub-urban area of south-south Nigeria had adequate knowledge of CSS, the actual practice of CSS was poor in most of the components of CSS. This therefore calls for a more concerted effort by policy makers and stakeholders in maternal and child health to ensure that women are empowered with adequate information, education and communication on the importance of practice of CSS as a means of curbing the twin malady of child morbidity and mortality. Moreover the education of the girl child as a means of empowering their knowledge base and equipping them to practice CSS with the attendant benefits to the child, mother, family and the society at large, is hereby re-emphasized.

ACKNOWLEDGEMENT

The authors wish to acknowledge and commend the administrative and nursing staff of Primary Health Centre, Itu, for their immense support that resulted in the success of this work.

Conflict of interest

The authors of this publication wish to declare that no conflict of interest exist among the authors.

Funding

The funding of this work is borne completely by the authors

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How to cite this article: Edet IV, Effiong JH, Udoh IA et.al. Knowledge and practice of child survival strategies among mothers attending postnatal clinic in Itu, a sub-urban area of South Nigeria. *Int J Health Sci Res.* 2020; 10(1):1-8.
