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Early Termination of Child Welfare Clinic (CWC) Attendance, the Case of Dungu Community, Tamale, Ghana

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Abstract: In 2018, an estimated 6.2 million children and adolescents under the age of 15 years died, mostly from preventable causes. 5.3 million of these deaths occurred in the first five years of life. More than half of these early child deaths are preventable or can be treated with simple affordable interventions including childhood immunizations. Studies have found that, termination of child welfare services has been a major challenge to combating under-five mortality all over Africa, including Ghana. This study was conducted to assess the prevalence of Child Welfare Clinic (CWC) termination in the Dungu community, a suburb of Tamale, the northern regional capital. The objectives of the study were to assess mother's knowledge on CWC attendance in the Dungu community, assess the prevalence of early termination of CWC attendance in the Dungu community, to ascertain the reasons for early termination of CWC attendance among mothers/ caregivers in the Dungu community and to find out the effects of child spacing on CWC attendance in the Dungu community. The study found that, termination of child welfare services is prevalent in the dungu community as it is in many parts of Ghana and Africa. Majority of the mothers were found to terminate after two years of patronizing services, when the scheduled immunization is completed. Several reasons were attributed to the termination of service attendance, some which include; attitude of service providers, few working days of CWC facilities, spacing of children and financial challenges (which was found to be the major reason for termination). Some recommendations proposed by the study includes; child welfare clinics should be operational on each working day of the week in the Dungu community, service providers should intensify public education on child welfare services in the Dungu community as well as during child welfare services. Immunizations should be spaced out to cover the entire five years if possible, this will encourage the mothers to patronize the service till the mandated five years as most of the mothers tend to terminate after the immunization schedule is completed.

Keywords: Child Welfare Clinic, Birth Spacing, Termination, Immunization

1. Introduction

In 2018, an estimated 6.2 million children and adolescents under the age of 15 years died, mostly from preventable causes. Of these deaths, 5.3 million occurred in the first five years of life. More than half of these early child deaths are preventable or can be treated with simple affordable interventions including childhood immunizations. [1] Sub Saharan Africa remains the region with the highest under five mortality rates in the world, with 1child in 13 dying before his or her fifth birthday, 15 times higher than in high income countries. [2] Ghana, just like many other nations all over the world has put in place measures to curtail the above statistics and to meet the UNs sustainable development goal (SDG) 3 which seeks to end preventable deaths of newborns and under-5 children by 2030. Child Welfare Clinic (CWC) is an integral component of the Ghanaian health care system and renders invaluable services to the under-five population. In spite of its invaluable contributions to child health, there has been reports of low attendance and early termination of attendance amongst its targeted population. Some few studies in Ghana attributes the decline in CWC attendance to several factors some of which includes distance to service centers,

child's age, school attendance and immunization schedule. Immunizations and checkups for fever and other diseases are not the only purpose of CWCs, but also serve as an excellent place for primary prevention of diseases and family education especially in good nutrition. [3] Other objectives for the attendance of CWC includes health promotion, illness and disease prevention, treatment of minor illness in children under five, to reduce infant mortality and morbidity rates, to extend of cost care to children and to give advice and education to mothers and caretakers on maintenance of good nutrition throughout the child's life. [2]

Although CWC is vital to the child's growth and development and its attendance is expected through to the fifth year of a child's life, it is observed that most mothers patronize CWC services during the first two years of a child's life. [8] It is during this period that active immunizations are given, whereas the vitamin A supplementation continues to the fifth year of life. Most children are therefore denied the opportunity to receive their vitamin A supplementation. In Ghana, data from 2003 Ghana Demographic and Health Survey (GDHS) suggest that one in every nine Ghanaian child dies before reaching age five, mostly from preventable causes. Vitamin A supplementation reduces mortality by 24% in children within the ages of six months and five years in developing countries. In a meta-analysis seventeen trials including 194 483 participants reported a 24% reduction in all cases of mortality. A 28% reduction in mortality associated with diarrhea in seven trials. Vitamin A supplementation is therefore associated with the reduction in the incidence of diarrhea and measles and a reduced prevalence of vision problems including night blindness and xerophthalmia. [4] A monthly mega dose of vitamin A is capable of preventing the deficiency that causes vision impairment and blindness in 10 million and half million children each year respectively. [5]

The study generally sought to investigate early termination of CWC attendance amongst mothers in the Dungu community, a suburb of the tamale metropolis. Specifically, the study sought to assess mother's knowledge on CWC attendance in the Dungu community, as well as assess the prevalence of early termination of CWC attendance in the Dungu community. The study also aimed to ascertain the reasons for early termination of CWC attendance among mothers/ caregivers in the Dungu community and to find out the effects of child spacing on CWC attendance in the Dungu community. The result of the study will provide knowledge that will feel gaps in literature which has implications for child and family life. It will also provide knowledge that will inform policy regarding public health practice, put more emphasis and measures to strengthen the CWC system and provide recommendations on how to improve the CWC attendance in the Dungu community if the results prove bad.

2. Materials and Methods

The study was conducted at the Dungu electoral area, Tamale. This area is located at the tamale south district. According to the 2010 population and housing census, the community of Dungu has an estimated population of 2,623 residents comprising of 1402 males, 1221 females, 496 households and 262 houses. [15] The population of both men and women in reproductive age, which ranges from 15-49 years, is 1410. The percentage of women in reproductive age is 47% which is equivalent to 663.

The study was a cross sectional non-experimental study where all data needed from participants was collected at one point in time with no manipulation to participants. In this study, participants were required to fill questionnaires that was developed by the researcher to help elicit information that sought answer the research objectives.

The study population comprised all mothers with children under five years of age. This is the age at which children are expected to be taken for antenatal clinics for CWC services. All mothers and guardians with children between the ages of birth to five years who resides in the Dungu community were included in the study. Mothers who had children between the ages of 0-5 years, who were found at the Dungu community, but does not reside in Dungu were excluded from the study. Mothers who recently travelled to the Dungu community but do not attend CWC in Dungu were also not added in the study. A sample size of 80 participants was used in the study. The formula Z^2*(P)*(1-P) C^2 was used to arrive at the sample size of 80 participants [6]; where SS=Where Z=Z value (1.96 for a confidence level of 95%. P=the percentage of picking a chance, expressed as a decimal (5 used for the sample size needed equivalent to 0.05. C=confidence interval, expressed as a decimal. 5% equivalent to 0.05. The sample size for the study population of 663 after calculation was 73. An additional 10% of the sample size was added for non-respondence. This increased the sample size to 80. The technique used to get participants was the convenience sampling method, where the researcher roamed through the township of Dungu and the first 80 mothers or caregivers who fit into the study population were selected. The dependent variable was CWC attendance of mothers with children between the ages of 0-5years. The independent variables were patient demographic (age, occupation religion marital status and educational status of mothers), knowledge level of mothers regarding CWC and child spacing of mothers. Data sources were mothers within the inclusion criteria as well as reviewed literature. Questionnaires were administered to mothers and caretakers after their consent were sought. The researchers administered the questionnaires to the mothers in a face-to-face interview during a one-time household visit over a 10 day-period.

Data processing was done using microsoft excel. Data was checked, cleaned, entered and analyzed using Statistical Package for Social Sciences (SPSS) version 21.

3. Results and Discussion

3.1. Results

Data collected from the respondents was analyzed in line with the research objectives, using Statistical Package for Social Sciences (SPSS) version 21 as stated earlier. In all, 70 respondents were involved in the study. All the respondents

were mothers with one or more children within the ages of birth to 5 years and resides within the Dungu community.

3.1.1. Socio-Demographic Information of Participants

Table 1. *Respondents Background Information.*

	Frequency	Percentage
Age Range		
15-20	1	1.4
21-25	10	14.3
26-30	20	28.6
31-35	23	32.9
36-40	16	22.9
Total	70	100
Educational Level		
No Education	51	72.9
Primary	14	20.0
Junior High/ Middle	4	5.7
Senior High/ A-Level	1	1.4
Total	70	100
Marital Status		
Single	5	7.1
Married	63	90.0
Divorced	2	2.9
Total	70	100
Religious Affiliation		
Islam	49	70.0
Christianity	21	30.0
Total	70	100
Occupation		
Farmer	43	61.4
Trader	24	34.3
Teacher	1	1.4
Others	2	2.9
Total	70	100
Major Languages Spoken		
Dagbanli	49	70.2
English	8	11.4
Hausa	1	1.4
Others	12	17
Total	70	100

Source: Field work, 2021

The table 1 above shows the age distribution of the 70 participants that took part in the study. The age ranges between 31and 35 had the highest percentage of 32.9%, followed by the age ranges of 26-30, with a percentage of 28.6%. The age range of the participants is however fairly distributed.

The table also shows the educational distribution of the study participants. 51 of the study participants, representing 72.9% had no formal education. 20% of the participants had primary education, 5.7% had junior high or middle school education, whereas only 1.4% up to senior high or A level education.

Of the seventy participants that took part in the study, 63 of them, as shown in the table 1 representing 90%, were married, 7.1% were single and only two of them, representing 2.9% were divorced.

The study participants were Christians and Muslims in terms of their religious affiliation. Fifty of the study participants, representing 71.4% were Muslims, whereas the remaining 29.6% were Christians. This is summarized from the pie chat above.

The occupations of our study participants were famers, traders, teachers and other occupations such as nurses. From the table 1, 43 of the participants were farmers, 24 of them were engaged in trading, and 1 was a teacher whereas the rest were engaged in other occupations such as nursing.

The major languages that were spoken by the study participants were Dagbani, English and Hausa. 61 of the participants speaks Dagbani as their major language, 8 of them speaks English whereas only 1 of them speaks Hausa as the major language.

Almost all of the participants however spoke multiple languages such as Twi.

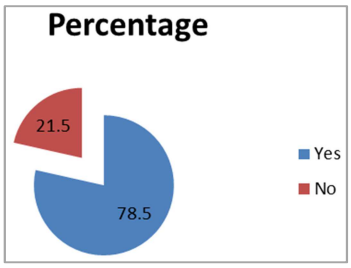
3.1.2. Knowledge of Mothers of Under-5 Children Regarding Child Welfare Clinic (CWC) Attendance

Table 2. *Knowledge about activities performed at CWC.*

RESPONSE	FREQUENCY	PERCENT
Children's weight is monitored	1	1.4
Children receive immunization	24	34.3
Mothers are given health education	40	57.1
Sick children are sent there	1	1.4
Pregnant women are examined	1	1.4
Items for babies are sold	2	2.9
Others	1	1.4
Total	70	100.0

Source: Field work, 2021

The first objective of the study was to assess mother's knowledge on CWC attendance in the Dungu community, as such, this was the first question on the questionnaire after demographics. Mothers were presented with a list of options on some of the activities done at CWC in other to elicit their knowledge level about CWC. From the table above, forty of the study participants, representing 57.1% believed mothers are given health education at CWCs, twenty-four of the participants, representing 34.3% said children are given immunization at CWCs. Two of the mothers said items for babies are sold. This is summarized from the table above.



Source: Field work, 2020

Figure 1. *Whether children are supposed to attend CWC until their fifth birthday.*

Mothers were asked if they knew that children are supposed to attend CWC until their fifth birthday. Fifty-five of the mothers answered in the affirmative, representing 78.5%, whereas fifth teen of the mothers answered no. This is visualized in the diagram below.

3.1.3. Knowledge on the Duration of CWC Attendance

Sill eliciting the knowledge of mothers on CWC, mothers

were now asked for how long they are expected to send their children for CWC if the answer to the previous question was no. the results is displayed in the table below.

Table 3. *Knowledge on CWC Duration.*

AGE	FREQUENCY	PERCENT
6 months	1	1.4
2 years	12	17.1
Others	2	2.8
Not applicable	55	78.5
Total	70	100.0

Source: Field work, 2020

Table 4. *Activities done at CWCs.*

ACTIVITY	FREQUENCY	PERCENT
Registration of Children	66	94
Give children injection	49	70
Weighing of children	67	96
Health education	37	53
Counseling	21	30
Treatment of minor illnesses	12	17
Others	33	47

Source: Field work, 2020

The study participants were then asked to choose from the list some of the activities they think are done at CWC. They were allowed to choose multiple options. Sixty-six of them, representing 94% said children are registered at CWC. 70% said children are given immunizations, 96% said children's growth is monitored, 51% of them went for health education. Only 21 of the participants, representing 30% said mothers are counseled and seventeen percent said minor ailments are treated at CWCs. Information summarized from the table above.

3.1.4. Prior Knowledge of CWC Before First Pregnancy

The diagram below shows the number of respondents who heard of CWC before their first pregnancy. Seventy-five percent of the respondents said they have heard of CWC prior to their first pregnancies, whereas the remaining twenty-five percent said they have not heard about CWC prior first pregnancy.

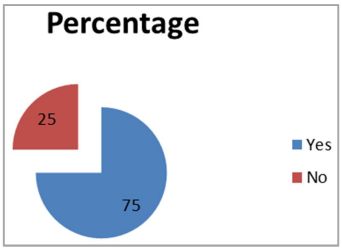


Figure 2. *Number of respondents who heard of CWC before their first pregnancy.*

Next was where the participants first heard of CWC. From the table below, thirty-four percent of the participants said they learnt of CWC from the antenatal clinic, this was during their pregnancies. Thirty-three percent heard of CWC from other pregnant women, six percent heard from the public health education, whereas one-point four percent each heard either from the market or radio programs. The remaining twenty- four-point three percent heard from other sources such as in the family.

Table 5. *First Place Respondent Heard of CWC.*

LOCATION	FREQUENCY	PERCENT
Antenatal clinic	24	34.3
Public Health education	4	5.7
Market	1	1.4
Radio	1	1.4
From other pregnant women	23	32.9
Others	17	24.3
Total	70	100.0

Table 6. *Knowledge regarding the Importance CWC.*

CATEGORY	IMPORTANCE	FREQUENCY	PERCENTAGE
REGISTRATION	For acquiring birth certificates	68	97.1
	Helps in record keeping	69	98.6
	To check immunization uptake	55	78.6
	To be able to trace immunizationDefaulters	49	70.0
	To get baseline data of children	53	75.7
	Others	5	7.1
IMMUNIZATION	Prevents vaccine preventable diseases	69	98.6
	Prevents malaria	63	88.6
	Gives child strength	69	98.6
	Makes child intelligent	69	98.6
	Treats sick children	69	98.6
	Others	0	0
WEIGHING	Helps to monitor child growth	69	98.6
	To detect malnourishment in children	69	98.6
	To know child's current weight	69	98.6
	To assess child's physical growth	1	1.4
	Others	4	5.7
COUNSELING	Helps to Improve Knowledge on Childs Condition	66	94.3
Avenue to commend mothers for takingproper care of their children		66	94.3
Avenue to advice mothers on properfeeding practices		66	94.3
Helps educate mothers on child hygiene		66	94.3
Educating on the prevention of childhoodDiseases		0	0.0
Others		0	0.0

CATEGORY	IMPORTANCE	FREQUENCY	PERCENTAGE
TREATMENT			
Helps in preventing Complications		66	94.3
Prevention of communicable diseases		66	94.3
Health promotion		66	94.3
Reduces stress on parents		0	0
Others		0	0

Source: Field work, 2020

The table depicts mother's knowledge on the importance of some CWC activities such as registration, immunization, weighing, counselling and treatment of minor ailments. With each activity, respondents were asked to state the importance to both mothers and children. On the activity of registration, 69 of the respondents, representing 98% said it helps in record keeping. 68 of the respondents, making 96% said it helps in the acquiring of birth certificates, whereas 78.6% said it helps in immunization updates. 75.7% said it helps in getting baseline data of children and 70% mentioned of tracing defaulters.

On the activity of immunization, 98.6% of the respondents made mention of its importance as preventing vaccine preventable diseases, giving child strength, making child intelligent and treating sick children. Sixty-three of the mothers, making 88% said the immunizations given at CWC helps to prevent malaria.

With regards to the activity of growth monitoring, majority of the respondents, thus 96.8% mentioned the importance of growth monitoring as helps to monitoring children's growth, detecting malnourishment in children and assessing child's current weight. 5.7% mentioned other importance such comparing children of similar ages.

On the activity of counselling, 64 of the study respondents, representing 94.3% made mention of its importance to include helping to Improve Knowledge on Childs Condition, avenue to commend mothers for taking proper care of their children, avenue to advice mothers on proper feeding practices and helping to educate mothers on child hygiene. None of the mother's mentioned education on the prevention of childhood diseases as an important of counselling.

With regards to the activity of treatment of minor ailments, 66 of the respondents, representing 94.3% said helps in preventing Complications, prevention of communicable diseases and health promotion amongst mothers.

3.1.5. Prevalence of Early Termination of CWC Attendance

Table 7. *Number of Children Respondent Has.*

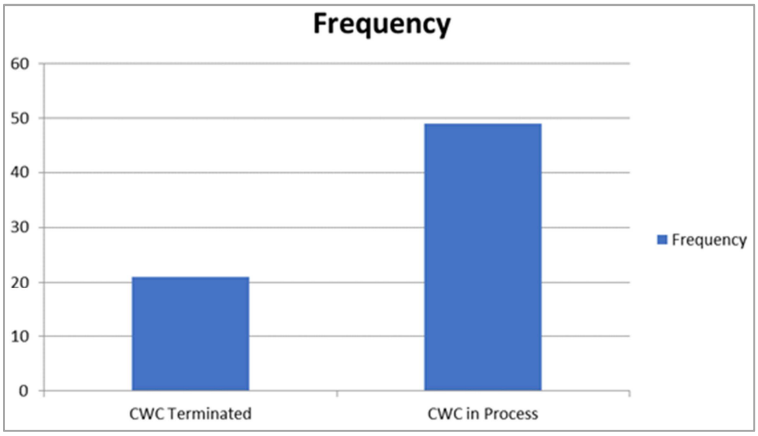
RESPONSE	Frequency	Percent
1 (One)	8	11.4
2 (Two)	9	12.9
3 (Three)	5	7.1
4-5	34	48.6
5-6	14	20.0
Total	70	100.0

Source: Field work, 2020

One of the objectives of the study was to determine the prevalence of early termination of CWC attendance in Dungu community, as such, a whole section of the questionnaire was dedicated to illicit this information. The study participants were first asked to indicate the number of children they each had. 11.4% of the mothers had one child each, 12.9% had two children each, 7.1% had three children each. 34 of the mothers, making 48.6% had 4-5 children each and 24 of the participants, making 20%, had 5-6 children. This information is summarized from the table above.

3.1.6. Current Child CWC Status

From the diagram below, the mothers were asked to indicate if their current child has terminated CWC attendance or is still attending. 21 of the mothers, representing 30% said their current children had terminated CWC attendance. Whereas 49 of the mothers, representing 70% said their current children are still attending CWC services.



Source: Field work, 2020

Figure 3. *Current Child CWC Status.*

From the diagram below, mothers with more than one child were asked to indicate if their previous child or children had terminated CWC before the mandatory five years, or completed CWC attendance wholly. The results tabulated below shows that, only 18 of the mothers, resenting 25.7% had their children complete CWC after the mandated five years, 44 of them had children terminate CWC before the mandated five years. This constitute 69.9% of the participants. 8 of the study participants, representing 11.4%, were not applicable since they do not have more than one child.

Table 8. *Previous child's CWC Status.*

STATUS	FREQUENCY	PERCENT
CWC Completed	18	25.7
CWC Terminated	44	62.9
Not Applicable (Since Mother doesn't have more than one child)	8	11.4
Total	70	100.0

Source: Field work, 2020

Table 9. *Age last child terminated CWC uptake.*

DURATION	FREQUENCY	PERCENT
After 9 months	9	12.8
After 18 months	12	17.1
After 2 years	41	58.5
Not Applicable	8	11.4
Total	70	100.0

Source: Field work, 2020

The mothers were now asked to state the stage at which their children terminated CWC attendance. Majority of the mothers (58.5) said their children terminated just after 2 years of attending. Nine of the mothers, making just 12.8% had their children terminating at just nine months after attending and twelve mothers had their previous children terminated at 18 months. Eight of the mothers, making 11.4% were not applicable since they had only on child still on CWC attendance.

Table 10. *Why previous children didn't complete CWC Uptake.*

RESPONSE	FREQUENCY	PERCENT
I forgot	26	37.1
I was trading	11	15.7
I travelled	4	5.7
Didn't know when to attend	20	28.5
Clinic was far	1	1.4
Not Applicable	8	11.4
Total	70	100.0

Source: Field work, 2020

From the table above, mothers were asked to indicate why their previous child could not complete his or her CWC attendance up to the mandated five years. 26 of the mothers, representing 37.1% said they forgot of their appointed dates and another 28.5% said they did not know when to attend. 15.7% of the mothers said they were busy engaged in their trading activities, hence terminated before the mandated five years. 5.7% travelled and had to terminate CWC attendance prematurely.

3.1.7. Factors Responsible for Early Termination of CWC Uptake

Table 11. *Why previous children didn't complete CWC Uptake.*

RESPONSE	FREQUENCY	PERCENT
I forgot	25	1.4
I was trading	7	8.6
I travelled	9	1.4
Didn't know when to attend	26	37.1
Clinic was far	3	1.4
Total	70	100.0

Source: Field work, 2020

Table 12. *Reasons for early Truncation of CWC attendance.*

RESPONSE	FREQUENCY	PERCENT
Busy schedule at work	25	35.7
Distance to CWC facility	24	34.2
Nothing significant was done	16	22.9
Others	5	7.1
Total	70	100.0

Source: Field work, 2020

Mothers were then asked to indicate some of the reasons that account for CWC termination in general. The result is what is displayed in the table above. Twenty-five of the respondents, representing 35.7% indicated busy schedule at work, 34.2% complaint about distance to CWC, while 22.9% said nothing significant is done at CWCs.

Table 13. *Clients get offended by Nurses during CWC?*

RESPONSE	FREQUENCY	PERCENT
Yes	61	87.1
No	8	11.4
Sometimes	1	1.4
Total	70	100.0

Source: Field work, 2020

The next item was to identify if nursing mothers were offended at CWCs by health service providers. 61 of the respondents, making 87.1% said they were offended by service providers. 11.4% said they have not been offended by service providers before. Whereas 1.4% replied, sometimes.

Table 14. *Attitudes of Nurses hindering CWC Attendance.*

ATTITUDE	FREQUENCY	PERCENT
They shout at clients	18	25.7
Wastes Clients Time	15	21.4
They do not respect the mothers	26	37.1
They are partial towards some clients	5	7.1
Others	6	8.5
Total	70	100.0

Source: Field work, 2020

When respondents were asked what were some of the attitudes of nurses that hinder mothers' patronage of CWC activities, the results are displayed in the table above. 26 of the

mothers, representing 37.1% said they felt disrespected by nurses. 25.7% said they were been shouted at, whereas 21.4% said their time was been wasted by service providers. 7.1% complaint of staff's impartiality towards them whereas 8.5% mentioned other attitudes such as mother's effort not appreciated.

Table 15. *Social Factors hindering CWC attendance.*

RESPONSE	FREQUENCY	PERCENT
Illness	3	4.3
Marital problems	5	7.1
Financial problems	54	77.3
Others	8	11.4
Total	70	100.0

Source: Field work, 2020

To find out whether social factors has an impact on CWC attendance and termination, mothers were given a list of social factors to indicate which of them affects the CWC attendance. The result is what is displayed in the table above.

Majority of the study participants, 54 representing 77.3% indicated financial challenges as the main social factor impeding CWC attendance. 7.1% mentioned marital problems, 4.3% mentioned illness as the impeding social factor to CWC attendance. Whereas 11.4% mention other social factors such as family interference.

Table 16. *Distance to CWC facility.*

RESPONSE	FREQUENCY	PERCENT
Close	11	15.7
Far	32	45.7
Very far	27	38.6
Total	69	100.0

Source: Field work, 2020

Undoubtedly, the distance from once home to the CWC could be a disincentive to attendance. As such, mothers were asked to indicate how far they are from the CWC facility. 44.3% said they live far away from the facility, 38.6 said they live very far away from CWC facility whereas only 15.7% said they live close to the facility. This information is displayed in the table above.

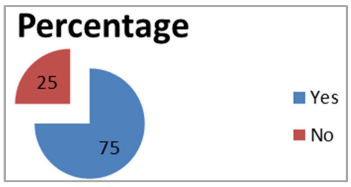
Table 17. *Means of Transport to CWC facility.*

RESPONSE	FREQUENCY	PERCENT
Foot	35	50.0
Yellow-yellow	16	22.9
Bicycle	7	10.0
Car	12	17.1
Total	70	100.0

Source: Field work, 2020

To find out what means of transport mothers use to get to the facilities to assess CWC services, mothers were asked to indicate their means of transport. 50% of the mothers said they attended CWC services on foot. 10.0% use bicycle, 22,9% use the tricycle popularly known as "yellow- yellow", Whereas 17.1 said they assess CWC services using a car as their means of transport.

CWC Services Cost



Source: Field work, 2020

Figure 4. *Whether CWC are paid for.*

Next was to find out whether mothers are asked to pay for services rendered at CWCs. From the diagram above, 75% said they were not asked to pay for services, whereas 25% said they were asked to pay for some services.

Table 18. *Items paid for at CWC.*

ITEM	FREQUENCY	PERCENT
Child records book	13	18.6
Immunization	2	2.9
Others	55	78.6
Total	70	100.0

Source: Field work, 2020

Asked what some of the items been paid for, 18.6% of the mother's mention child record books as the items been paid for. 2.9% mention immunization as services paid for, whereas majority of the respondents (78.6%) mentioned other services such as weighing pants, weaning foods and some medications such as paracetamol as the other services been paid for.

Table 19. *CWC operation days in the community.*

RESPONSE	FREQUENCY	PERCENT
Every working day	2	2.9
Once a week	2	2.9
Twice a week	1	1.4
On some specific days only	63	90.0
Others	2	2.9
Total	70	100.0

Source: Field work, 2020

From the able above, respondents were asked to state how regular CWC services are rendered in their community. Majority of the mothers, 63, making 90%said CWC services are rendered only on some specific working days in their community. 2.9% said once a week and another 2.9% said on every working day.

The respondents were asked to suggest what they think nurses should do to improve CWC service patronage. 40% of the mothers suggested that CWC be open on every working day. 25.7% suggest nurses should be more respectful towards mothers, 5.8% said nurses should report early during CWC days and 11.4% mention other points such as mothers should be rewarded if they are able to complete the mandated five

years.

Table 20. *What Nurses should be doing at CWC.*

RESPONSE	FREQUENCY	PERCENT
Nurses should be more respectful to mothers	18	25.7
Nurses should report early during CWC days	6	5.8
Nurses should motivate mothers who are punctual and regular at CWC	6	5.8
Nurses should trace defaulters of CWC	4	5.7
CWC should be open everyday	28	40
Others	8	11.4
Total	70	100.0

Source: Field work, 2020

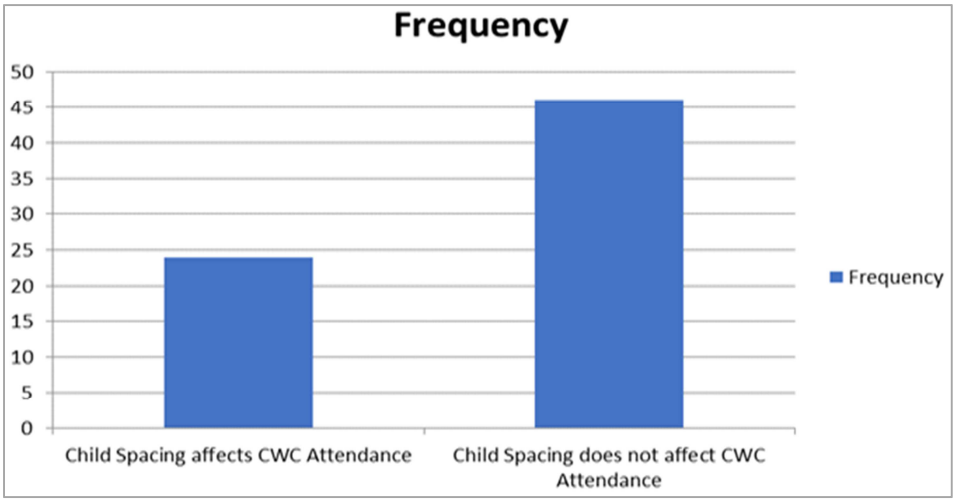
Table 21. *Reasons for Mothers to stop CWC.*

RESPONSE	Frequency	Percent
Distance to CWC site	16	22.8
Negative attitude of Health Processional	19	27.1
Nothing Significant Happens at CWC	26	37.1
Selling of Items at CWC by Health Professionals	2	1.4
Others	7	10.0
Total	70	100.0

Source: Field work, 2020

From the table above, mothers were asked to state some of the factors that bars mothers away from CWC services. 37.1% indicated that, noting significant is done at CWC, 27.1 complaint about nurses' negative attitude, 22.8% complaint about distance to CWC facility, whereas 1.4% made mention of selling of items by staffs.

One of the main objectives of the study was to find out the effects of child spacing on CWC attendance. Mothers were asked if child spacing affects their CWC attendance and has an impact on early termination. 46 of the mothers, representing 65.7% said child spacing does not CWC attendance, whereas the remaining 24 (24.3%) said child spacing affects attendances of CWC services. Information displayed in the diagram above.



Source: Field work, 2020

Figure 5. *Effects of Child Spacing on CWC Attendance.*

3.2. Discussion

3.2.1. Socio-demographic Characteristics

Results from the study showed that, majority of the mothers were ranged between the ages of 21-35 years, having a cumulated percentage of 61.5%. The least category of mothers in the study was those within the ages of 15-20, comprising of only 1.4% of the study. This goes to indicate why most of the mothers were having more than one child. It also explains why most of the study participants are married, with a percentage of 90%.

Majority of the respondents, 72.9% had no formal education. 100% of those with senior high education were found to complete CWC attendance, half of those with junior high education completed. For those mothers who had education up to primary school level, 21% were found to complete CWC attendance whereas 25% of those with no educational background completed.

So, the level of education attained was found to have an impact in CWC attendance. This result agrees with the findings of Agbozo et al. (2018) who found that educational attainment has a major influence of health seeking behavior. [8]

The high percentage of participants that had no form of formal education accounts for the high level of self-employment (trading and farming) amongst the participants.

61.4% of the participants were farmers and 34.3% were traders, with only 1.4% been teachers. This also accounts for majority of the participants (87.1%) speaking Dagbanli as their major language.

With regards to the religious denominations of the participants, 71.4% were Muslims, whereas the remaining 29.6% were Christians. This can be attributed to the fact that; Islam and Christianity are the two main religions in Ghana. The high percentage of Muslims as compared to Christians among the participants can be attributed to the fact that, the northern regional capital, tamale, has a higher percentage of Muslims than Christians, contrary to the national percentages of the two major religions where Christianity has a higher percentage than Islam.[7]

3.2.2. Assessing Mothers Knowledge on CWC Attendance

The first objective of the study was to assess mother's knowledge on CWC attendance. Parents' decision in seeking health care is greatly influenced by the level of knowledge or information about such care at their disposal, hence the more caregivers or mothers are knowledgeable about CWC, the more likely they are to attend CWC frequently and complete it. [11] In 1992, Owusu and Larety found that all mothers attending CWC were solely attending because of weighing, immunization, and education on nutrition and childcare. [14]

This study found out that, most of the mothers in Dungu community had fair knowledge on the activities of CWC though majority of them were lowly educated. For instance, 75% of the mothers in the study knew children are supposed to attend CWC till their 5th birthday. This result contradicts that of Addae& Adjei (2013), who found out that, 95% of mothers or caretakers in Bomfa sub-municipality in the Ejisu-Juabeng Municipality in Ashanti region of Ghana did not know how long a child should attend CWC.[12] 75% of the respondents said they have heard of CWC prior to their first pregnancies. Of this 75%, 34.3% first heard about CWC at the antenatal clinic whereas 32.9% first heard of CWC from other pregnant women.

Only 5.7% heard about CWC from public education whereas 1.4% heard from the radio. This finding agrees with a study by Muneera et al (1999), which indicated that insufficient publicity campaigns in the form of radio, TV, newspapers contributes to a reduced awareness of mothers on public health care services, including CWC. [13] The result further go to support a study by Senkyire (2019) who found out that, 66% of his study respondents reported first hearing about immunization from the health worker usually after delivery or during antenatal services.

On the activities at CWC, majority of the mothers had fair knowledge on some of the activities carried out at CWCs. For instance, 94% said children are registered, 70% said children are immunized, 96% mention growth monitoring and 53% talked about health education. 17% talked about treatment of minor ailments. On treatment of minor ailment, one of the participants indicated that, some medications are inserted into the children's anus when they are experiencing high body temperatures.

3.2.3. Prevalence of CWC Termination

The next objective was to assess the prevalence of early termination of CWC services in the Dungu community. 30% of the mothers had their current children terminating CWC before the mandated 5years. 88.6% of the mothers had more than 1 child. 62.9% of the mothers with more than one child has their previous children terminating CWC attendance before their mandated 5years. The study further established that, 58.5% had their children terminating CWC at 2years, the age at which vaccine immunization is completed, 17.1% terminating at 18 months and 12.8% terminating at just 9 months. This finding goes to support that of Addae and Adjei who found out in 2013 that, majority of the mothers terminated CWC attendance between the ages of 12-23 months. A study by Akesse & Obeng. (2015) however found mothers terminating CWC at just 9-18 months. [11]

Elsewhere in Kenya, Jane I found out in 2015 that, Health facility data in Kenya show that growth monitoring is not done per schedule or consistently until the child is 59 months in line with the WHO recommendations (MOH and NICEF 2004). The majority of mothers stop when immunization is completed. This finding has been vindicated by or study.

Agbozo et al. (2018) reported that, it is not only mothers that are guilty of focusing mostly on immunizations, but health workers as well. He reported that, "The health workers seemingly focused on meeting immunization targets to the neglect of other vital components of the programs such as growth assessment and counselling on infant and young child feeding". The health workers were concerned that, once an immunization vial is opened, it ought to be finished within the day, hence their focus on immunization.

Ghassemi (1986) found out that, mothers who attended CWC services irregularly considered immunization more important than growth monitoring and therefore terminated after the full course of immunization. [3] Again, A study conducted by Mapatano et al. (1997) on the attendance of children to the maternal and child clinic (MCH) in South Africa found that attendance was infrequent after 12 months, reflecting that attendance was pegged to immunization.

3.2.4. Reasons for the Early Termination of CWC Attendance

According to Gertrude (2018), cost of transportation, the busy schedules of the mothers and some negative attitudes of some health professionals were the main reasons for the reduction in attendance at CWC by mothers attending Dansoman polyclinic.

Next was to assess the reasons for the early terminations of CWC services. 38.1% of the respondent said they had forgotten whereas 28.5% said they did not know when they were expected to visit next. This finding can be attributed to the low level of education amongst the mothers.

On the social factors that hinders mothers from completing CWC attendance, majority of the mothers (77.3%) mention financial challenges as the main hindrance to CWC attendance. With the high proportion of the respondents engaged in trading and farming, it is always challenging to

leave their trade behind to attend CWC services.

25% of the mothers said they were asked to pay for services including child record books and, immunizations and weighing pants. This serves as a disincentive as most of the mothers are petty traders and subsistence farmers. This finding supports that of Gertrude in 2018. In a study by Awodele et al. (2010) mothers were prepared to pay for CWC services no matter the cost involve, hence cost was not an impediment for them. But Akesse and Obeng again pointed out in 2015 that, 12% of mothers paying for items and services rendered to them was an impediment to their patronage of CWC services. Agbozo et al. (2018) also found out that, Financial challenges towards transportation, purchasing items sold at the clinic (by service providers) and sometimes paying service charges was a major concern. 'Mothers lamented about constant persuasion from the health workers to purchase stuff they sold at the clinic.

These items ranged from weighing pants, 'weanimix' (complementary food produced from cereal-legume-peanut blend), cosmetics, diapers to medications especially analgesics for fever, teething and colicky pain.'

Although 45.7% of the respondents stay far away from the CWC facility and 38.6% staying very far away from the CWC facility, they did not actually mention distance to the facility as a hindrance, yet 50% of the mothers attend CWC services on foot. Addae and Adjei. (2013) and Akesse and Obeng. (2015) reported from their studies in the Assin-North municipality and Bomfa sub-municipality respectively that, that majority of CWC attendants walked to clinic irrespective of the distance they have to cover to get to the clinic.

When the mothers were asked to indicate some of the disincentives that puts mothers away from patronizing CWC services, majority of them (37.1%) stated that, nothing significant is done at CWCs. This supports the findings by Vaibhav et al, 2019 which found out that, 31.3% of mothers felt nothing significant is done at CWCs. Another major concern for the mothers that serve as a disincentive was the attitude of service providers. 81.1% of mothers felt offended by nurses' attitude at CWCs, complaining about nurses shouting at them, not respecting them and been impartial towards some mothers. This finding supports that of Hubert and Samuel, 2019 whose study at the Ketu south municipality pointed out that, majority of mothers felt offended by staff attitude at the Ketu south municipality whilst patronizing CWC services. Elsewhere in Ghana, Agbozo et al. (2018) reported that, mothers expressed concern about the unprofessional behaviors exhibited by some staff such as public scolding, lack of rapport, impatience to listen and lack of confidentiality especially during counselling sessions were specified which demoralized them from being consistent with schedules.

Another reason for the termination of CWC services according to the respondents is the few working days of the only facility in their community. Majority of the mothers said the CWC in their community only operates on some selected days of the week. And 40% recommending the facility be operational on every working of the week.

3.2.5. Impact of Child Spacing on CWC Termination

According to Greenberg et al. (2011) folate (vitamin B9), which is critical for the growth and development of the fetus is generally replenished in the postnatal period and is less likely to return to optimal levels during shorter intervals or short spaced births.[10] This supports the importance of birth spacing for at least two years and above.

One of the objectives of the study was to assess the impact of child spacing on CWC attendance. As such, mothers with more than one child were asked to indicate if the spacing of their children has an impact in their attendance of CWC. The average birth spacing of mothers in the Dungu community is 2-3years. This finding supports that of Yohannes D. (2010) who found 33% of births occurring south west Ethiopia between 2-3years. 65% of the mothers said child spacing has no impact on CWC attendance.[9] This seem to be confirmed by the following findings. 61% of the mothers with more than one child, whose births spacing is between 2-5 years terminated CWC attendance before the mandated five years. and 19% of mothers whose child spacing is between 1-3 years completed CWC attendance.[16] This finding implies that, birth spacing does not affect the termination of CWC attendance in Dungu community although the prevalence of early termination is high.

4. Conclusion

Child Welfare Clinic attendance, despite its innumerable benefits to child, mother and the society as a whole need a concerted effort from all stake holders if we are to achieve the national targets. All the literature reviewed in this study reported undesirably high prevalence rates of termination. The untoward effects of these termination manifests in our children as the undesirably high under-five mortality rates.

Although the pattern of under-five mortality has declined in the past decades, the figures recorded in Africa are still high compared to that of the developed world. Every life is important. We have come at an age where no child should die from preventable deaths. The low rate of vitamin A supplementation, which results from mothers terminating CWC attendance after just two years of attending has serious repercussions on healthy growth and development of our children. An estimated 4 million children under age five are affected by xerophthalmia, a serious eye disorder that can be caused by moderate to severe deficiency and can lead to blindness as a result of inadequate vitamin A supplementation. [5]

The study proposes that policy makers should extend the schedule immunization aspect of the program to cover the entire five-year duration. This will compel mothers to complete the entire program as most studies have reported mothers terminating after the immunization aspect are over.

Staff at child welfare facilities should sort out and categorize mothers according to the various stages of their children. Mothers should be sorted into groups of those due for immunizations, growth monitoring, health education and counseling. This can be done as a strategy to help conserve

time as most mothers complain of time wastage at CWC facilities. Stake holders should intensify public education in the radios, television stations, in the communities and at the child welfare facilities. Mothers should be educated on the side effects of the immunizations to prevent them from terminating due to the side effects. The GHS should conduct periodic research at the house hold and community level to identify the hindrances to CWC services in Ghana.

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