An Evaluation of Knowledge, Attitudes, And Participation in Maternal, And Child Health Programs among Women in Twapia, Ndola District, Zambia

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Abstract

Background: Maternal and child mortality is still a problem not only in Zambia but in many other countries across the world. The high levels of Maternal and Child mortality are a serious problem, especially among African countries. This has led to the prioritization of maternal and child healthcare in many countries. Programs to improve the health of mothers and children have been implemented in all countries of the world. In Zambia, there been an Increase in Antenatal Care, Postnatal care, antiretroviral therapy for HIV infected pregnant women and vitamin A supplementation. Programs such as the child, health week was introduced as interventions against maternal and child mortality.

Objective: This study will determine the knowledge and attitudes of women towards maternal and child healthcare programs.

Method and setting: A cross section study was employed in the study. The study targeted woman of Twapia area in Ndola, with at least a child were interviewed in their households through a structure questionnaire.

Data analysis: An Excel spreadsheet was used for data capturing. Percentages and numbers were used to interpret data. Computed data will be entered using Epi-data version 3.1. The data will be analyzed using Spss and Excel.

Benefits of the study: The results highlighted gaps within maternal and child healthcare. The results of the study were used to formulate strategies to advance maternal and child healthcare in Zambia. The study also helped to establish the importance of women participation in the development of maternal and child health.

Results: The study involved 374 women from within Twapia. 236 (63%) of participants were between the ages of 26–35 year while 138 (37%) of the participants were between the ages of 18–25 years. About 363 (97%) of the participants were married and 4 (1%) of were single while 7 (2%) of the participants were widows. A total of 146 (39%) participants attended primary school, 75 (20%) went up to secondary school level, only 4 (1%) went as far as tertiary level and the rest, 148 (40%) did not have any formal education. About 292 (78%) of the participants were unemployed and the rest, 82(22%) had some form of employment. 288(76,9%) of the participants had good knowledge regarding maternal and child health programs while 86(23.1%) had poor or bad knowledge. 350(93.8%) had good attitude towards maternal and child health programs among and 23(6.2%) had poor or bad attitude towards maternal and child health programs. 232(61.9%) of the participants had good participation in maternal and child health programs among and 142(38.1%) had poor or bad participation in maternal and child health programs.

Conclusion: The main aim of the study was to evaluate the Knowledge, Attitudes, and Participation in Maternal, and Child Health programs among women in Twapia, Ndola District, Zambia. The Findings of the study indicated that more than three quarters of the participants had good knowledge regarding maternal and child health programs. The study also found that the majority had good attitude towards maternal and child health programs. Another finding from the study was that more than half of the participants had good participation in maternal and child health programs. The study also revealed that there a significant association between the socio-demographic characteristics of participants and knowledge on antenatal care services. Also the participation and knowledge on antenatal care services had a significant association.

Keywords: Maternal • Healthcare • Pneumonia

Introduction

Background

    Maternal and Child Health (MCH) remains one of the biggest challenges in global health, especially among developing countries. Every day, approximately 800 women die while 10-15 million women suffer from morbidity caused by preventable conditions related to pregnancy and childbirth (WHO, 2013) [1]. The world health organization identifies the global distribution of maternal deaths by cause as hemorrhage (27%), hypertension (14%), sepsis (11%), unsafe abortion (8%), embolism (3%), direct causes (10%) and other indirect causes (28%) including AIDS and malaria experienced during birth or before birth (UNICEF, 2013). Child mortalityis equally a serious problem in 2017 alone, an estimated 6.3 million children and young adolescents died, mostly from preventable causes. Newborns account for 2.5 million of these deaths, children aged 1–11 months

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for 1.6 million, children aged 1–4 years for 1.3 million, children aged 5–9 years for 0.6 million and young adolescents aged 10–14 years for 0.4 million (Child Mortality Report 2018). Pneumonia and diarrhea account for half of the deaths. Other causes include neonatal tetanus, measles, pertussis, malnutrition, and diphtheria. Neonates are the most vulnerable because they depend on a nurturing adult, particularly their mothers.

Different countries around the world have not only focused on implementing programs to help reduce maternal and child health mortality but have also prioritized maternal and child health (MCH) [2]. According to the center for disease and control (CDC), the total amount spent on health care projects in the United States of America (USA) is greater than any other country in the world. In countries like Spain and Greece where maternal and infant deaths are lower than the USA, the countries have invested in refined technology, highly trained medical experts, proper management and the social ties between the expectant mothers and their medical doctors (Rowe, 2013). In Zambia, a number of programs and interventions have been made. Increased Antenatal Care, Postnatal care, antiretroviral therapy for HIV infected pregnant women and vitamin A supplementation. Uptake of ART by HIV positive pregnant women to reduce Mother to Child transmission has increased from 67% in 2007 to 89% in 2014 (ZDHS, 2014). In 2011, the Ministry of Community Development and Social Services was realigned to include Mother and Child Health services and renamed the Ministry of Community Development, Mother and Child Health (MCDMCH). This was done to overcome implementation challenges identified during prior Health Strategic Plan periods, holistically address extreme poverty and primary health issues, and bring strong leadership and fresh impetus to MNCH programming.

The advancement in maternal and child health has led to a decline in levels of mortality in most countries [3]. Through different efforts, access to safe pregnancy and childbirth is now been viewed not just as a public health concern, but as a human right (Thompson, 1999). Although there has been a reduction in Maternal and child mortality the current standards of maternal and child healthcare should be subjected to improvement if there is to be continued effectiveness of the maternal and healthcare services. This research study will look into evaluating women's knowledge, participation, and attitudes toward maternal and child health programs. It's very important to know the levels of knowledge among women regarding maternal and child health. The study will be conducted in Twapia area in Ndola, Zambia and will use questionnaires as a means of collecting information. The study results will enable the formulation of recommendations on how to strengthen and improve maternal and child healthcare services and increase maternal and child survival in Zambia.

Statement of the problem

Although there has been progress and development in maternal and child health over the past years, mothers and children still die every year. Pregnancy and childbirth in many countries and communities are periods of great risks to the health and survival of women and newborns. In Zambia, about 95% of pregnant women attend ANC services at least once during pregnancy. However, only 24% initiate ANC in the first trimester and 56% make a minimum of 4 visits during their pregnancy (ZDHS, 2013/14). On average pregnant

women initiate antenatal care by 4.8 months of gestation, thereby reducing opportunities for early detection of danger signs and the adequate management of maternal complications. While efforts to reduce maternal and child mortality rates over the past 20 years have had a striking impact, stillbirths and newborn deaths have over the same period missed out on the attention they need (WHO, 2017).

Justification

The research study when conducted will offer insights on areas in need of improvement to further strength maternal and child healthcare. If maternal and child health is to increase beyond its current standards there need for a research study that will knowledge from a different perspective. The research study results will highlight women's knowledge and participation in maternal and child health programs among other things. Recommendations will be given based on the results of the study on how Zambia's maternal and child healthcare system can improve further.

Literature Review

Global perspective

According to WHO (2014) maternal and child, mortality is a serious global health challenge. Research studies to help improve maternal and child mortality have been done across the world. A Study was conducted in India with the aim of finding the link between educated mothers and child mortality. Using qualitative methods in south India, Caldwell, et al. (1983) found that educated mothers were more likely to take their child to modern facilities for treatment. They also suggested that educated mothers were more autonomous with respect to decisions about their children's health. Basu and Stephenson (2005) found particularly strong evidence for the protective role of education in child mortality. The link between education and child mortality remains strong in India (Caldwell Reddy and Caldwell 1983; Basu and Stephenson, 2005). Even low levels of education (incomplete primary education) were found significant in reducing the odds of mortality in 1 to 24-month-old children. However, completed primary education was significantly associated with lowered odds of neonatal mortality. They suggest that "little learning" in primary schools in India is beneficial because mothers learn to accord teachers with great authority and therefore bestow similar authority to doctors and nurses and follow without question their prescribed guidelines for treatment. Kravdal (2004) shows that individual (mother's education) and estimates of average levels of women's education in the community are significant factors associated with child survival in India.

Regional perspective

Maternal and child mortality is highest among African countries. A number of studies have been done in different countries in Africa. A study that was done in Malawi presented an interesting case study of how Malawi, a resource-poor country, has been able to achieve the Millennium Development Goal 4 of reducing infant and child mortality over the past two decades. Moise I, et al. [4] reviewed that the declines in infant mortality experienced by Malawi were due to factors that included wide-spread immunization of infants as well as increasing levels of female education and availability of skilled birth attendants. The study demonstrates that with correct strategies,

even an under-developed country such as Malawi can meet some of the lofty targets set by the MDGs.

A study in Nigeria was done to highlights the progress Nigeria has made in improving access to maternal health services in the last two decades (i.e. 1990–2013). The study used five available Nigeria Demographic and Health Surveys and examined the trends in three reproductive health indicators (contraceptive prevalence rate, skilled birth attendance, and adolescent birth) [5]. The results in this study showed increasing trends in modern contraceptive prevalence rate from 3.8% in 1990 to 11.1% in 2013 and in skilled birth attendance from 30.8% in 1990 to 40% in 2013. The study also found a decreasing trend in adolescent birth rate from 23.5% in 1990 to 17.1% in 2013. However, a closer examination of the results shows the presence of marked disparities in the indicators based on residence, wealth and educational attainment with rural residents, the very poor and the less educated bearing the greatest burden.

Okigbo CC, et al. [6] concluded that Nigeria was not on track to achieve MDG 5 targets which called for concerted efforts to focus on vulnerable populations if maternal health is to be improved in Nigeria. Oyibo N, et al. [7] note that maternal mortality in Nigeria is one of the major challenges in the reproductive health arena.

Kuuire, et al. examines changes in the timing and utilization of maternal health-care services in Nigeria and Malawi for successive years. Their findings show that women in Nigeria were 7% less likely in 2008 compared to 2003, and in Malawi, 32% more likely in 2013 compared to 2000, to utilize first ANC in the first trimester of pregnancy. The timing of first ANC visit was strongly influenced by wealth in Nigeria while this appeared not to be the case in Malawi. Kuuire, et al. findings demonstrate clearly how various contextual issues such as poverty and wealth may be enabling or inhibiting the utilization of maternal health-care services. Another study was done within sub-Saharan Africa. The study was aimed at assessing the effect of household environmental health hazards on under-five mortality in sub-Saharan Africa [8]. The study used DHS data sets of the following 12 countries in the region: Burkina Faso, Burundi, Cameroon, Cote d'Ivoire, Ethiopia, Gabon, Guinea, Malawi, Niger, Rwanda, Senegal, and Zimbabwe. These countries constitute roughly 26 percent of the region's population. The study employed the principal component method to construct an index of the level of household environmental health hazards using the following indicators: water source, type of toilet facility, flooring material, type of wall, type of roof, type of cooking fuel and location of a water source. The results of the study indicated that there was a significant effect of the index of household environmental health hazards on under-five mortality in three countries: Burundi, Niger, and Rwanda. By contrast, an assessment of interaction effects indicates that its effect on the risk of death depends on the age of the child in eight countries: Burkina Faso, Burundi, Cameroon, Guinea, Malawi, Niger, Rwanda, and Senegal. An increase in the index of household environmental health hazards is consistently associated with an increase in the risk of death during 24-59 months after birth. For a unit increase in the index of household environmental health hazards, the odds of the risk of death increases by 18 percent in Burkina Faso to 33 percent in Senegal for this age interval. Its effect is less noticeable among young children.

National perspective

A National Emergency Obstetric and Newborn Care (EmONC) Assessment conducted in 2013/2014 revealed that only 18% of the designated EmONC facilities were fully functional with all the seven signal functions available. This contributed to the unmet need for EmONC services, cesarean section rate, which was estimated at 3.6% and is below the globally accepted standard of 5.5%.

A Study was done to assess maternal mortality in Communities in Kalabo District, a very remote rural area in western Zambia. The design of the study was the Sisterhood method survey and hospital data. The study reviewed the estimated maternal mortality ratio derived from this survey was 1,238 per 100,000 live births. The hospital study involved 2,474 deliveries of 2,374 live babies. The official number of maternal deaths was 13. Further investigation of files revealed additional 15 maternal deaths, bringing the institutional maternal mortality rate from 548 to 1,179 per 100,000 live births [9-12].

Objectives

General Objective: The main aim of this research study is to evaluating women's Knowledge, Attitudes, and Participation in Maternal, and Child Health programs.

Specific objectives:

- To establish the relationship between socio-economic and level of knowledge about maternal and child health programs among women in Twapia.

- To assess the relationship between knowledge and participation in maternal and child health programs among women in Twapia.

- To formulate recommendations on ways to improve maternal and child health in Zambia using results from the study.

Research hypothesis

Maternal and Child mortality persist regardless of the implementation of maternal and Child health programs due to inadequate knowledge, negative attitude and inadequate participation of women in Maternal and Child Health Programs.

Measurements

Important Definitions

Knowledge: Awareness or familiarity gained by experience of a fact or situation.

Participation: The action of taking part in something.

Attitude: A settled way of thinking or feeling about something.

Maternal: Referring to mother.

Child: A young boy or girls under 14 years of age include new borns.

Maternal and Child Health Programs: Are programs and services that are offered to promoting the good health and development of health of pregnant

Women mothers, infants and young children.

Table 1 shows the operational definitions.

Table 1. Operational definitions.

Research objectives	Type of variable	Level of scale	Data collection method
To determine women's knowledge of the importance of maternal and child health.	Independent variable: knowledge	Ordinal	Questionnaire
To evaluate women's participation in maternal and child health programs.	Independent variable: participation	Ordinal	Questionnaire
To determine women's attitudes, responses and behaviors towards maternal and child health	Independent variable: Attitude	Ordinal	questionnaire

Scales of Measurement

Ordinal or Ranking Scale: Participant's Attitude, Participation, knowledge of maternal and child health programs will rank depending on their answers to the questions in the questionnaire. The categorized into two: good and bad based on participants response. Those that got 6 or more of the question on knowledge were categorized as having good knowledge while those that got less than 6 were categorized as having poor knowledge/ for attitude those that got 4 or more were categorized as good attitude while those that got less than 4 were categorized as having bad or poor attitude. For participation, participants that got 4 or more questions were categorized as good participation while those that got less than4 were categorized as poor participation.

Conceptual Framework

Figure 1 shows the Conceptual Framework of Independent and Dependent Variables.

Methods and Materials

Study site

The study will be conducted in Twapia area of Ndola Zambia.

Target population

The participants included women with at least one child under the age of five.

Study design

A cross-sectional study was be used.

Sample size

The following formulae was be used to determine the required sample size.

n=sample size

N=Female Population Size=14924P=prevalence=50%

C=confidence level 95%, hence c=5%Z=value=1.96

$$\text{Sample size} = \frac{n}{1 + n/N}$$

$$\text{Where n} = \frac{z^2 p(1-P)}{c^2}$$

To determine sample

$$n = (1.96)^2 \, 50 \, X \, 50 = 385$$

$$(5)^2 \quad 5^2$$

$$\text{Sample size} = \frac{385}{1 + (385/14984)} = 374$$

Sampling procedure

Random sampling was used to all those meeting the criteria. Women meeting the desired were being picked at random throughout the study population.

Inclusion and exclusion criteria

Inclusion criteria:

- Any woman staying within Twapia and had an at least one child under five.

- Eligible participants who give informed consent to this study will be included.

Exclusion criteria:

- Any woman not having a child under the age of five.

- Any woman not within Twapia area.

- Eligible participants who give informed consent to this study will be included.

Data collection tool:

Data collection was done using a questionnaire which has been attached in the appendix.

Data analysis and presentation

An Excel spreadsheet will be used for data capturing. Percentages and numbers will be used to interpret data. Computed data will be entered using Epi-data version 3.1. The data will be analyzed using Epi-Infor version 7.0.

Numerical data from each objective will be categorized according to ordinal scale and presented using charts on excel.

Ethical consideration

This research will not be conducted until it has been approved by the ethical committee of the Tropical Disease and Research center of Ndola as well as the public health unit of the Copperbelt University School of Medicine. The eligible participants will be assured of confidentiality in everydetail provided to us. Very important is explaining to them the relevanceand importance of the sincerity and honesty in the answering of the questions that will be directed to them, making them understand the importance of the findings and results to be obtained.
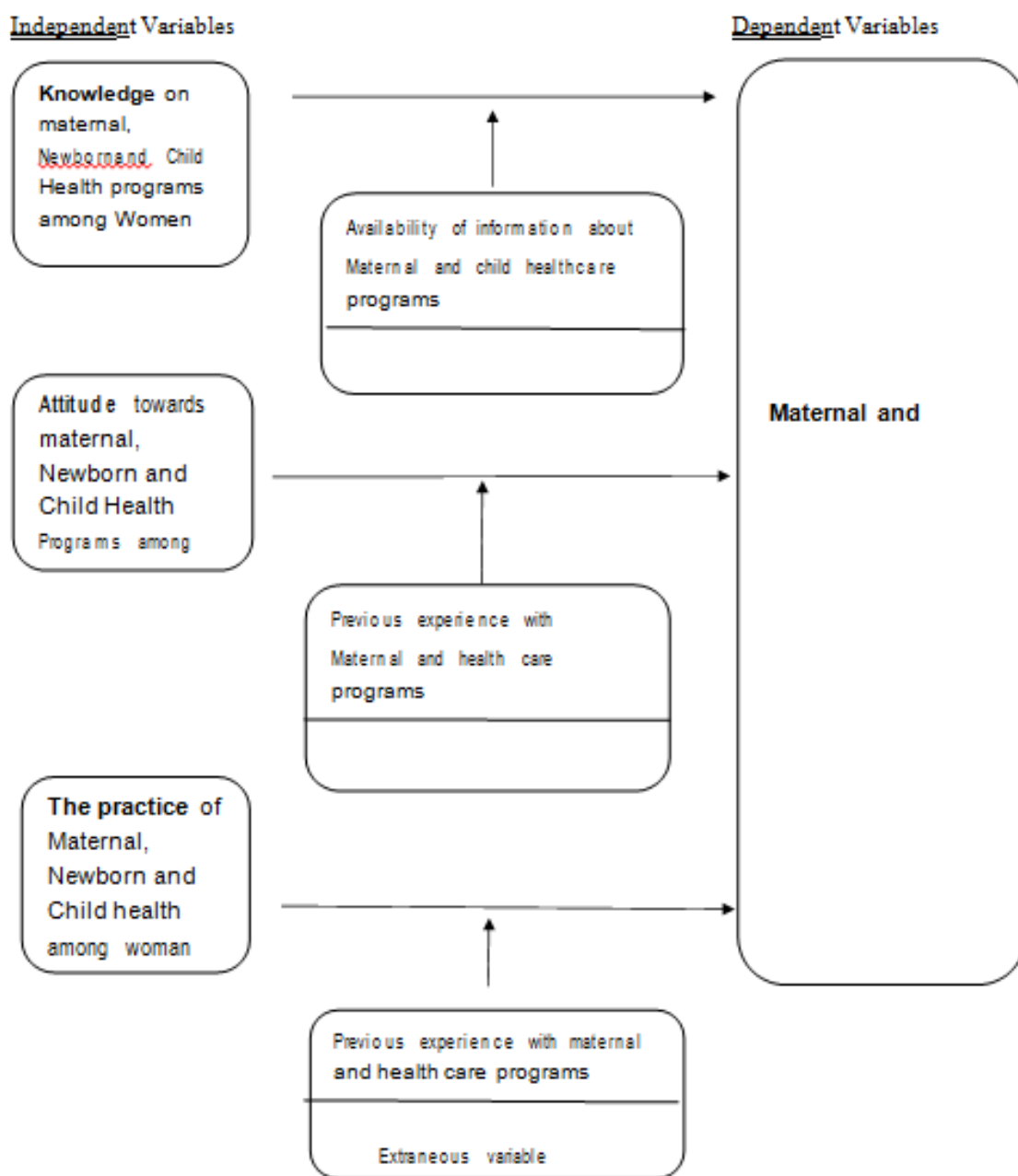
Study limitation

Figure 1. Conceptual framework of independent and dependent variables.

The challenge of this research will be limited on time and financial cost required to carry out the study.

Results

Socio-demographic characteristics

The study involved 374 women from within Twapia. 236 (63%) of participants were between the ages of 26–35 year while 138 (37%) of the participants were between the ages of 18–25 years. About 363 (97%) of the participants were married and 4 (1%) of were single while 7 (2%) of the participants were widows.

Total of 120 (32%) participants had one child, those that had 2 children were 187 (50%) and 67 (18%) had at least 3 children. A total of 146 (39%) participants attended primary school, 75 (20%) went up to secondary school level, only 4 (1%) went as far as tertiary level and the rest, 148 (40%) did not have any formal education. About 292 (78%) of the participants were unemployed and the rest, 82(22%)had some form of employment. Table 2 shows the Socio-demographic characteristics of study participants.

Knowledge

The study found out that a total of 363(97%) understood that maternal healthcare services are meant to promote the health of women during and after pregnancy, only 11(3%) said they didn't know. Regarding antenatal care, most of the participants 213(57%) knew that the antenatal services are offered to any pregnant While 49(13%) said no and the remaining 112 (30%) did not know. About 367(98%) said yes pregnant women should go for antenatal care while 7(2%) said they did not know. Concerning where to access antenatal care from, 307 (82%) responded yes antenatal care can be accessed from a health Centre while 15(4%) responded No and

Table 2. Socio-demographic characteristics of study participants.

Variables		Frequency (N)	Percentage (%)
Age	18 – 25 Yrs	138	37%
	26 – 35 Yrs	236	63%
Sex	Female	374	100%
Marital Status	Single	4	1%
	Married	363	97%
	Divorced	0	0%
	Widow	7	2%
Number Of Children	1	120	32%
	2	187	50%
	3+	67	18%
Education	Primary	146	39%
	Secondary	75	20%
	Tertiary	4	1%
	None	148	40%
Employment	Employed	82	22%
	Unemployed	292	78%

Table 3. Knowledge on maternal and child healthcare services.

Variables	Frequency (N)	Percentage (%)
Maternal Healthcare Services Promote Health Of Mother		
1. Yes	363	97
2. No,	0	0
3. I Don't Know	11	3
Antenatal Healthcare Services Are Offered To Any Pregnant Woman		
1 = Yes,	213	57
2 = No,	49	13
3 = I Don't Know	112	30
During Pregnancy, Women Should Go For Antenatal Care		
1 = Yes ,	367	98
2 = No,	0	0
3 = I Don't Know	7	2
Antenatal Healthcare Services Can Be Accessed From The Health Centre		
1= Yes,	307	82
2= No,	15	4
3 = I Don't Know	52	14
Supplement Medicines (Iron, Zinc, Folic Acid, Etc.) During Pregnancy		
1=Yes,	202	54
2= No,	7	2
3 = I Don't Know	165	44
Pregnancy Delivery Should Be From		
1= Health Facility,	374	100
2 = Home,	0	0
3 = I Don't Know	0	0
Postnatal Review Is Necessary		
1 = Yes,	148	40
2 = No,	90	24
3 = I Don't Know	136	36
Children Can Get Nutritional Supplements And Vitamins From The Health Centre		
1 = Yes ,	153	41
2 = No,	82	22
3 = I Don't Know	139	37
Children Can Get Tb, Polio,Hep B, Hib Vaccines From The Hospital		
1 = Yes,	374	100

2 = No,	0	0
3 = I Don't Know	0	0
Children Should Always Been Taken To See A Doctor When Unwell		
1 = Yes,	374	100
2 = No,	0	0
3 = I Don't Know	0	0

Table 4. Attitudes towards maternal and child health programs.

Variables	Frequency (N)	Percentage (%)
1. During Pregnancy , Women Should Go For Antenatal		
Strongly Agree	82	22
Agree	292	78
Disagree	0	0
Strongly Disagree	0	0
2. Antenatal Help Prevent Obstetric Complications		
Strongly Agree	37	10
Agree	217	58
Disagree	120	32
Strongly Disagree	0	0
3. Women Should Go For Postnatal Check Up		
Strongly Agree	7	2
Agree	367	98
Disagree	0	0
Strongly Disagree	0	0
4. Delivery Should Be Done At Health Facility L To Prevent Complications		
Strongly Agree	75	20
Agree	280	75
Disagree	19	5
Strongly Disagree	0	0
5. It Is Important To Vaccinate Your Child		
Strongly Agree	0	0
Agree	374	100
Disagree	0	0
Strongly Disagree	0	0
6. Under Five Children Should Be Taken For Under Five Check Up		
Strongly Agree	67	18
Agree	307	82
Disagree	0	0
Strongly Disagree	0	0

the remaining 52(14%) participants did not know. Relating to whether Supplement medicines (iron, zinc, folic acid, etc.) during pregnancy are given, 202 (54%) responded yes while 7(2%) responded No and the remaining 165(44%) participants did not know. Regarding whether delivery should be at a health facility or home, all the participants said health facility.

Most of the participants, 148(40%) agreed that it was necessary to go for postnatal care after delivery while 90(24%) said no and the remaining 136(36%) said they did not know whether it was necessary to go for postnatal checkup after pregnancy. Concerning whether children can receive nutritional and vitamin supplements from the health Centre, the majority 153(41%) said yes, while 82(22%) said no and the remaining 139(37%) said they did not know. Regarding if children can get tb,polio,heb B,HiB vaccines from the health Centre all the 374 participant responded yes. Lastly, If children should be taken to see a doctor when unwell all the participans responded yes. Overall, 288(76.9%) of the participants had good knowledge regarding maternal and child health programs while 86(23.1%) had

poor or bad knowledge. Table 3 shows the knowledge on maternal and child healthcare services.

Attitude

Most of the participant 292(78%) agreed that during pregnancy women should go for antenatal, with the remaining 82(22%) strongly agreed to the same. Other results; 217(58%) participants agreed that antenatal helps prevent obstetric complications and 37(10%) of the participants strongly agreed while 120(32%) disagreed. The majority 367(98%) of the participants agree that women should go for postnatal checkup after delivery, the remaining 7(2%) participants strongly agreed. The study further asked the participants if delivery should be done at a health facility to help prevent complication to which 75(20%) strongly agreed, 280(75%) agreed and 19(5%) disagreed. All the 374 participants agreed that vaccination is important. Lastly participants were asked if under five children should be taken for under five check-up to which 397(82%) agreed and 67(18%) strongly agreed.

Overall, 350(93.8%) had good attitude towards maternal and child health programs and 23(6.2%) had poor or bad attitude towards maternal and child health programs. Table 4 shows the attitudes towards maternal and child health programs.

Participation

A total of 251(67%) participants never attended antenatal during their last pregnancy and only 123(33%) said they attended. Those that attended antenatal during last their last pregnancy were asked how many visit they made to which 81(61%) said they only attended once while 42(34%) attended at least 2 antenatal visits. Participants were asked the place of delivery of the last pregnancy, 376(98%) responded that they delivered from a health facility and the remaining 7(2%) participant said they delivered from home. Regarding postnatal checkup 224(60%) said they went for postnatal while 150(40%) said they did not. All the 374 participants said they took their babies for immunization. A total of 258(69%) responded yes when asked if they took their baby for under five checkup and 116(31%) said they did not.

Overall, 232(61.9%) of the participants had good participation in maternal and child health programs among and 142(38.1%) had poor or bad participation in maternal and child health programs. Table 5 shows the participation in maternal and child health programs.

Association

Socio-demographic characteristic and knowledge: An assessment to determine if there was an association between socio-demographic characteristics and knowledge level on antenatal care was done. It was determined from the p value of 0.01 that age of participants had an association to the level of knowledge participants had on antenatal care. Employment also showed an association to the level of knowledge as the p value was 0.03. Lastly, Education equally showed an association to the level of knowledge with a p value of 0.01. Table 6 shows the the relation between socio- demographic characteristic and knowledge.

Participation and knowledge: Attendance of antenatal had an association to knowledge on antenatal with a p value of 0.025. The number of antenatal visits also had an association to the level of knowledge on antenatal services with p value of 0.04. Lastly attendance of postnatal checkup after delivery also had an

Table 5. Participation in maternal and child health programs.

Variables	Frequency (N)	Percentage (%)
Attend Antenatal Visit During Last Pregnancy		
1 = Yes	123	33
2 = No	251	67
If Yes, Number Of Antenatal Visits During Last Pregnancy [N = 123]		
1 Visit ,	81	66
2 And Above Visits	42	34
Place Of Delivery For Last Pregnancy		
1 = Home ,	7	2
2 = Health Facility	367	98
Went For Postnatal Checkup After Last Pregnancy		
1 = Yes	224	60
2 = No	150	40
Took Baby For Immunization		
1 = Yes ,	374	100
2 = No	0	0
Took Baby For Under Five Check Up		
1 = Yes	258	69
2 = No	116	31

Table 6. The relation between socio- demographic characteristic and knowledge.

Variable	Category	Knowledge On ANC	P Value
		Yes No	
Age	18 – 25	128 1	0.01
	26 - 35	36 200	
Employement	Employed	81 1	0.03
	Unemployed	100 192	
Education	Formal Education	189 36	0.01
	No Formal Education	40 108	

Table 7. Relationship between participation and knowledge.

Variable	Category	Knowledge On Anc	P Value
		Yes No	
Attended Antenatal Visit During Last Pregnancy	Yes	121 2	0.025
	No	50 201	
Number Of Antenatal Visits During Last Pregnancy	1	75 6	0.04
	2	42 0	
Went For Postnatal Checkup After Last Pregnancy	Yes	204 20	0.003
	No	70 80	

association to the level of knowledge on antenatal care services with p value of 0.003. Table 7 shows the relationship between participation and knowledge.

Discussion

The study focused on 374 women within Twapia with the aim of evaluating their Knowledge, Attitudes, and Participation in Maternal, and Child Healthcare programs. Further the study determined association between socio-demographic characteristics, participation and the level of knowledge on antenatal care services. About 76.9% of the participants had good knowledge regarding maternal and child health programs. This finding could probably be due to the increased partnerships between the ministry of health and other partners with the aim of improving the health and survival of mothers, newborns and children in Zambia. According to the (ZNHSP 2017) increasing knowledge levels among pregnant women remains a prime objective. In a separate study by smith and Dmytraczenko (2004) reported that Over 80 percent of the participants knew and understood the importance of seeking prenatal, delivery, and postnatal care at a health facility.

About 93.8% of the participants in the study had a good attitude towards maternal and child health programs. This result implies that the majority of participants are more willing to participants in maternal and child health programs in their area. This result is however in contrast to a study done in Ethiopia which concluded that had the majority of women had a poor or bad attitude towards maternal and child health programs (Girmaye 2020). The study results also showed that 61.9% of participants had good participation in maternal and child health programs. Meaning there are more women participating in maternal and child health programs than those not participating. This is in line with goal of improving maternal and child survival through increased participation. According to the 2013-14 ZDHS, the proportion of deliveries in health facilities stood at 67%, with skilled birth attendance at 64%. Also the ZDHS 2013-14 statistics showed that 96% of pregnant women attend ante-natal care (ANC) services at least once during pregnancy. Regarding postnatal care, according to ZDHS 2013-14, the uptake of postnatal services within 48 hours stood at 63%, and uptake within six days was estimated at 65.7%.

The study also found an association between Socio-demographic and the level of knowledge on antenatal care among the participants. This result showed that characteristics such as age, education and employed have an implication on the level of knowledge on antenatal care among women in Twapia. This could possibly be due increased access to information among the young women and those with formal education. The study also found an association between participation and the level of knowledge in antenatal care among the participants. More women are more likely to seek maternal and child health services if they are adequately informed. Such an association explains the importance of educating and sensitizing women to increase their involvement in maternal and child health programs / services.

Conclusion

The main aim of the study was to evaluate the Knowledge, Attitudes, and Participation in Maternal, and Child Health programs among womenin Twapia, Ndola District, Zambia. The Findings of the study indicated that more than three quarters of the participants had good knowledge regarding maternal and child health programs.

The study also found that the majority had good attitude towards maternal and child health programs. Another finding from the study was that more than half of the participants had good participation in maternal and child health programs. The study also revealed that there a significant association between the socio-demographic characteristics of participants and knowledge on antenatal care services. Also the participation and knowledge on antenatal care services had a significant association.

Recommendations

Community level

Increased level of the sensitization throughout the communities in to enhance knowledge on maternal and child health programs. Encourage women participation in maternal and child health programs.

Government level

More research is done on the knowledge and attitude of the community on maternal and child health programs especially in remote areas of the country. Government and other stakeholders' partnerships to foster a countrywide improvement in maternal and child healthcare. Government through the ministry of health generate awareness and stimulate women involvement in maternal and child health programs. Formulation of strategy plan to help bridge the gap in maternal and child healthcare service delivery.

Health workers

Well trained and qualified personal to deal with maternal and child health needs. Professionalism in conducting of responsibilities.

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