

Study of Knowledge, Attitude and Practice of Mothers with children less than five years towards Anemia in a Pediatric hospital

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ABSTRACT

Across Sectional descriptive health center-based study was conducted in Khartoum state Study of Knowledge, Attitude and Practice of Mothers with children less than five years towards anemia 180 respondents from Jafar Ibnouf Hospital were participated in this study; the study uses questionnaires, interviews and as tools for data collection. The data was analyzed by using computer software program (SPSS) Software Package for Social Science, and the result presented in the text, figures and tables. The study revealed that the majority of mother's good knowledge about anemia (81.4%), symptoms (71.7%), causes (45.0%), complications (87.1%), diseases lead to anemia (80.5%), types of anemia (63.9%) is fair, Attitudes of mothers was favorable in terms of anemia is a serious disease (70.1%), anemia is an infectious disease (88.9%). Poor practices was reported among mothers in terms of physical therapy (86.1%), while good practices was reported in terms of complete treatment of anemia (72.8%), took their child to health facility directly (61.9%) and eat regular foods when child is anemic (78.9). Correlation between educational level and knowledge about anemia is statistically significant ($r = .201$ $p < 0.05$). Also there was a correlation between mother attitudes regarding child to be at home and mothers education level ($r = .163$ $p < 0.05$). The study recommended there should be channels for nutrition education of mothers and community at all contact points through the use of mass media to educate the community.

KEYWORDS: Anemia, Mothers, Pediatric Hospital.

I. INTRODUCTION

Anemia is condition characterized by a decrease in the concentration of hemoglobin in the blood below the reference level for age and sex. According to WHO < 11 g /dl (Sharmanov, 1998) is for children 6 months–59 months. Hemoglobin is necessary for transporting oxygen to the tissues and organs in the body. The reduction in oxygen available to oranges and tissues is due to the fact that hemoglobin is responsible for many of symptoms experienced by anemic people. The consequences of anemia include body weakness frequent tiredness and lowered resistance to diseases. Anemia can be a particularly serious problem for pregnant women, leading to premature delivery and low birth weight. It is of concern in children since anemia is associated with impaired mental and physical development. Overall, morbidity and mortality risks increase for individuals suffering from anemia (Sharmanov, 1998).

Anemia has significant health implications, especially for children and mothers, as well as an impact on development of human capital. Anemia among women of reproductive age contributes to higher risk of having unfavorable pregnancy outcomes, such as premature births, or low-birth-weight babies (WHO, 2014). Anemia and iron deficiency reduce individuals' well-being, cause fatigue and lethargy, and impair physical capacity. This affects their productivity at work and thus may have an impact on a country's socioeconomic development (Yasutake, et al. 2013). The burden of anemia is not uniformly distributed across regions or countries in the world (WHO, 2015). Anemia affects nearly 2 billion

people worldwide and about 50% of all children less than 5 years old (Oppenheimer et al., 1986, van den Homberghet al., 1996). In Africa, the prevalence of anemia in pre-school children (40%) in most parts of the African continent. Iron deficiency is believed to be responsible for about half of the cases of anemia seen in women and children and is the most important single causal factor for the development of anemia (WHO, 2001). Other factors which have been found to contribute to the etiology of anemia in resource-limited settings include poor dietary intake and intestinal absorption of micronutrients (especially vitamins A, B12 and folate), hereditary conditions affecting red blood cells (sickle cell anemia, glucose-6-phosphate dehydrogenase (G6PD) deficiency, Thalassemia) and infections such as malaria, hookworm, schistosomiasis and HIV (Calis, et al. 2008).

II. STATEMENT PROBLEM:

Anemia is a global public health problem which affects 1.62 billion (24.8%) people worldwide. It occurs at all stages of the life cycle but is more prevalent in pre-school aged children (under five years). Globally, 293.1 million (47.4%) under five year's children are anemic and 67.6% of these children live in Africa (Benoist et al., 2008, McLean et al., 2009). Several factors contribute to the occurrence of anemia and nearly half of (43%) the anemia cases in childhood are due to iron deficiency (Adishet al., 1999).

2.1 Justification

As anemia is a major health problem worldwide. One third of the world's population suffers from anemia, while over half of the children in developing countries are anemic. According to WHO, the prevalence of anemia among children under 5 years in Africa varies from 49 % - 89% (Hussein and Mohamed, 2014). Few studies have investigated the prevalence of anemia in Sudanese children and there are no recent epidemiological studies as documented in survey conducted in 2006, which estimated the prevalence of anemia in Sudanese children less than 5 years as 84.9% (Hussein and Mohamed, 2014).

2.2 OBJECTIVES

2.2.1 General objectives:

To Study of Knowledge, Attitude and Practice of Mothers with children less than five years towards anemia in a Pediatric hospital.

2.2.2 Specific objectives:

2.2.2.1 To identify knowledge of mothers towards the prevention and control of anemia of their children

2.2.2.2 To, determine attitudes of mothers towards anemia of their less than five years

2.3 To determine practice of mothers towards anemia in children less than five years.

2.4 To identify socio -cultura and nutritional factors influencing the occurrence of anemia in children less than 5 years.

III. MATERIALS AND METHODS

3.1 Study design

Across Sectional descriptive health center-based study was conducted to Study of Knowledge, Attitude and Practice of Mothers with children less than five years towards anemia in Jafar Ibnouf Hospital.

3.2 Study area:

Study was conducted in Sudan, Khartoum state, in Jafar Ibnouf hospital. The hospital is located in the Central of Khartoum, Khartoum East administrative unit. The hospital mainly specialized in children who will be referred from different States of Sudan.

3.4 Study populations

Mothers of children under 5 years who attending, Jafar Ibnouf hospital in Khartoum.

3.5 Sampling process:

A total coverage of all eligible mother who had children less than five years old presented to the Pediatric hospital during the study period.

3.6 Data collection:

Data was collected using structured questionnaire which contains four sections. The questionnaire addresses the socio-demographic characteristics of the parents as well as their knowledge, attitude and practice of Mothers with children less than five years towards anemia

3.7. Data management:
Data was entered in a master flow chart then was analyzed using the statistical package for social sciences (SPSS)

IV. RESULTS

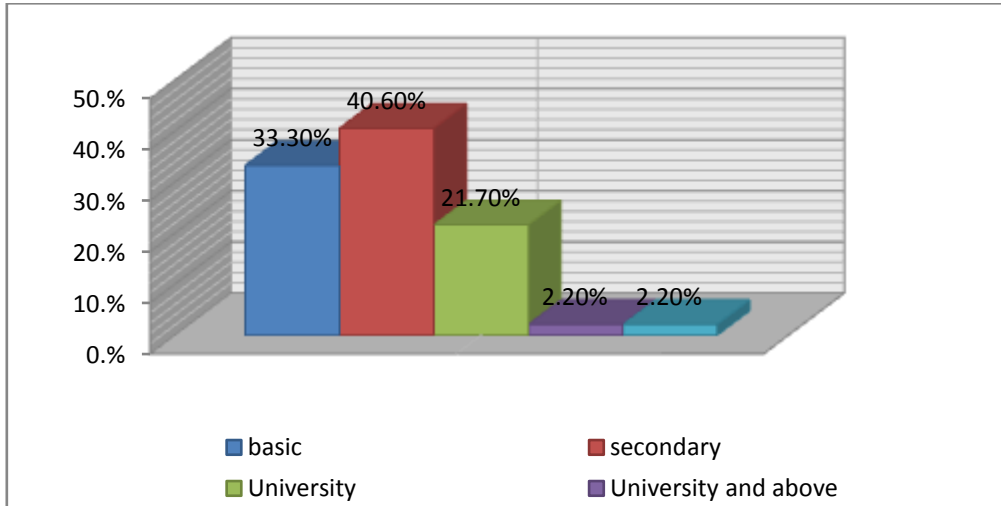


Figure (1) Distribution of the mothers according to educational level

n=180

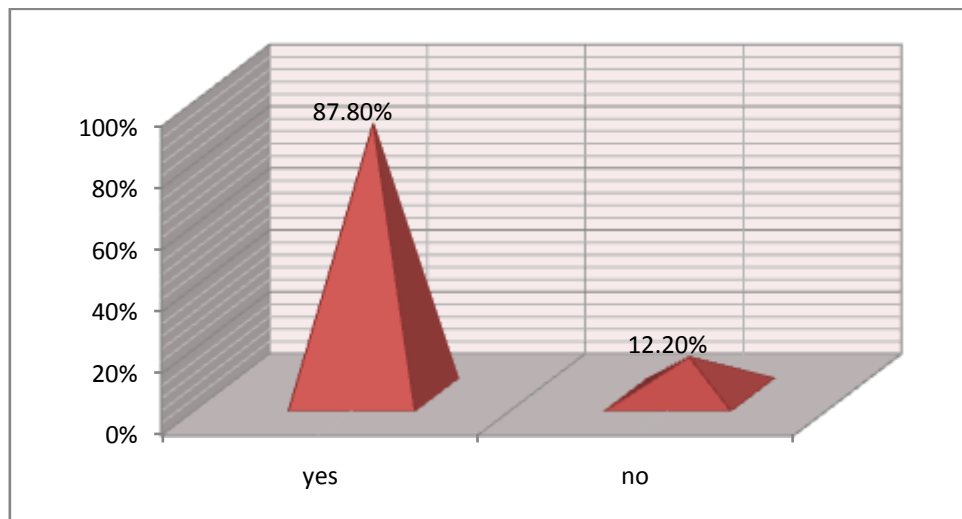


Figure (2) Distribution of the children according completion of the immunizations

n=180

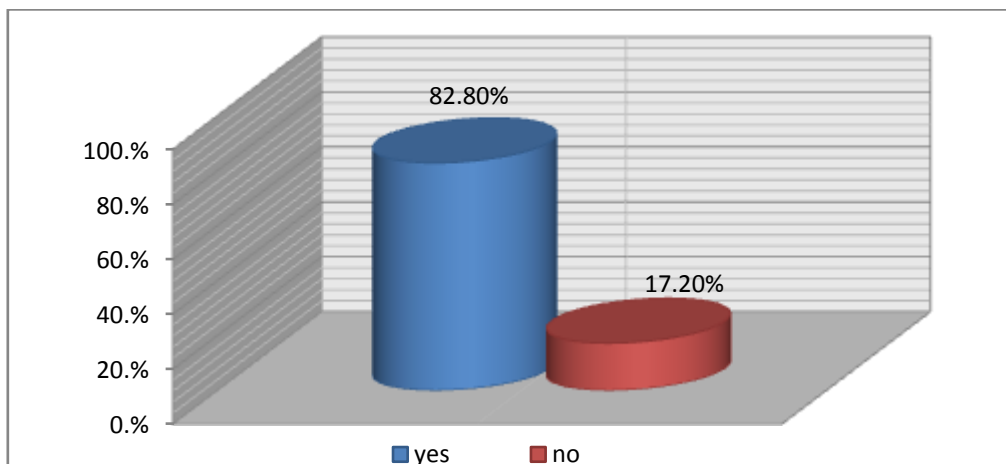


Figure (3) Distribution of the children according completion of the Breastfeeding

n=180

Table (1) knowledge of mothers towards anemia

n=180

	Frequency	Percent	Valid Percent
yes	158	81.4	87.8
no	22	11.3	12.2
Total	180	92.8	100.0

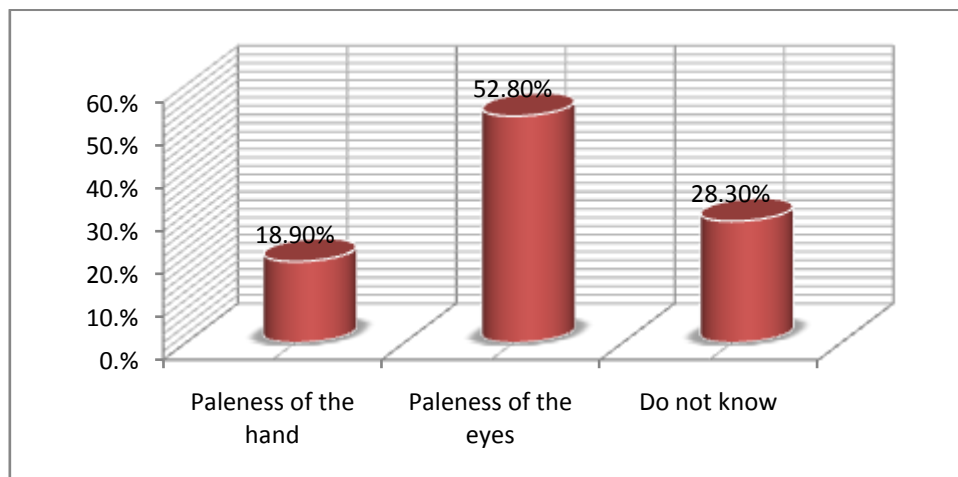


Figure (4) Distribution of mothers according to knowledge of their children infected by anemia

n=180

Table (2) knowledge of mothers towards causes of anemia

n=180

	Frequency	Percent	Valid Percent
Nutrition	15	7.7	8.3
Bleeding	1	.5	.6
Diseases	24	12.4	13.3
Hereditary factor	112	57.7	62.2
Eat clay	17	8.8	9.4
Another	1	.5	.6
Do not know	10	5.2	5.6
Total	180	92.8	100.0

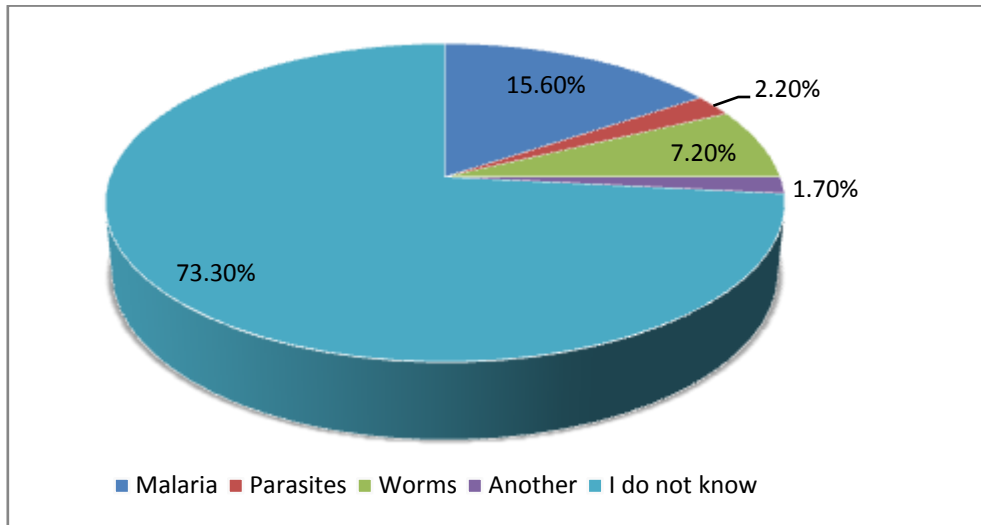


Figure (5) Distribution of mothers according to knowledge of the diseases that lead to anemia

n=180

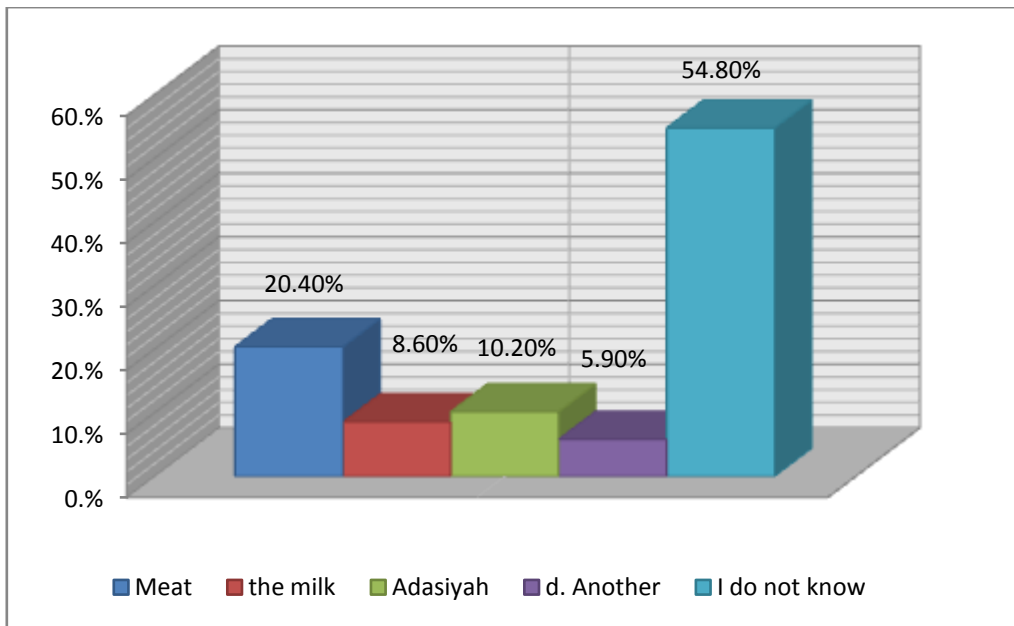


Figure (6) Distribution of mothers according to knowledge of the beneficial foods for anemia

n=180

Table (3) knowledge of mothers towards the types of anemia

n=180

	Frequency	Percent	Valid Percent
Iron deficiency	34	17.5	17.5
Folate deficiency	9	4.6	4.6
Sickle-cell	81	41.8	41.8
Another	32	16.5	16.5
I do not know	38	19.6	19.6

	Frequency	Percent	Valid Percent
Iron deficiency	34	17.5	17.5
Folate deficiency	9	4.6	4.6
Sickle-cell	81	41.8	41.8
Another	32	16.5	16.5
I do not know	38	19.6	19.6
Total	194	100.0	100.0

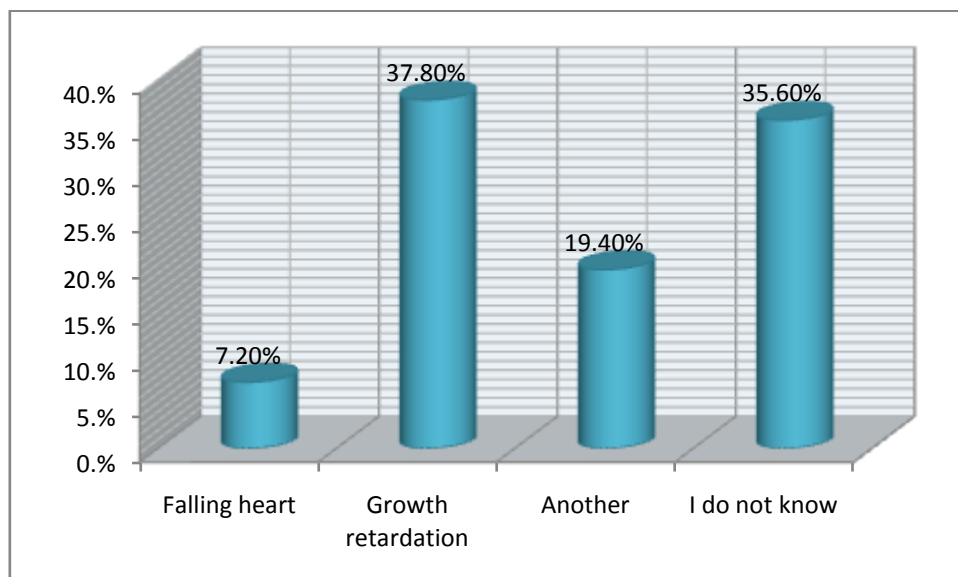


Figure (7) Distribution of mothers according to knowledge of the complications of anemia

n=180

Table (4) Attitude of mothers towards the anemia is a serious disease

n=180

	Frequency	Percent	Valid Percent
I agree	136	70.1	75.6
I do not agree	31	16.0	17.2
I do not know	13	6.7	7.2
Total	180	92.8	100.0

Table (5) Attitude of mothers towards treated anemia at home with nutrition only

n=180

	Frequency	Percent	Valid Percent
I agree	10	5.2	5.6
I do not agree	155	79.9	86.1
I do not know	15	7.7	8.3
Total	180	92.8	100.0

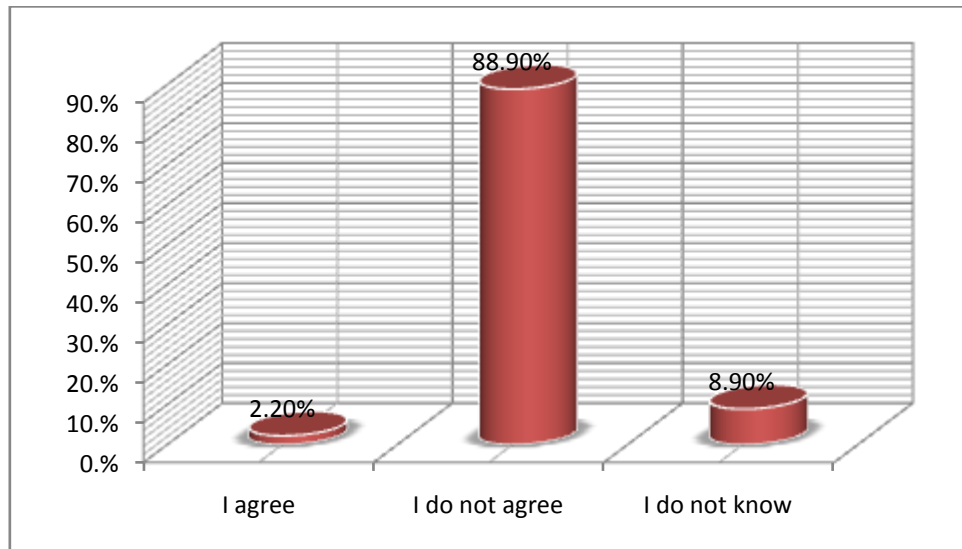


Figure (8) Distribution of mothers according to attitude the anemia is an infectious disease

n=180

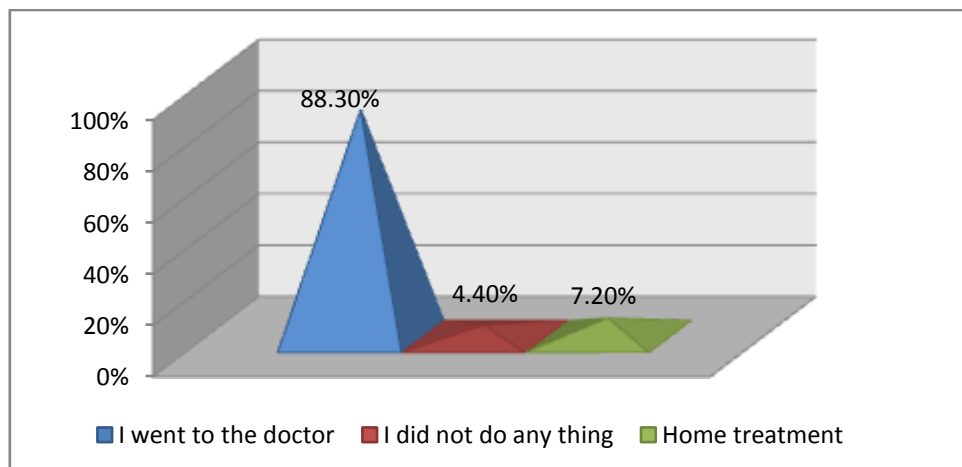


Figure (9) Practices of mothers towards after their child infected by anemia was injured

n=180

Table (7) Practices of mothers towards type of physical therapy

n=180

	Frequency	Percent	Valid Percent
Juices	6	3.1	3.3
Food	6	3.1	3.3
Another	1	.5	.6
do not apply	167	86.1	92.8
Total	180	92.8	100.0

Figure (9) Practices of mothers towards complete the treatment
 n=180

V. DISCUSSION

The results revealed that the majority of mothers knew anemia (81.4%) see table (5) which is similar in study done Sierra Leone shows 99% had heard about anemia (Konstantyner et al., 2012).

The results revealed that there was a majority of mothers knowledge on the main symptoms mentioned paleness of the eye (52.8%) as the main symptoms figure (8) while Knowledge related to causes of anemia most had knew, heredity factor, poor nutrition, diseases (malaria), bleeding, and eat clay . This acceptable level of knowledge may be returned to the high proportion of educated mothers from basic to post university. Similar study done in Palestine revealed that malaria was reported as main disease leads to anemia. But in contrast study in other part showed that only 3% of mothers elicited iron deficiency as cause of anemia (Tay et al., 2013). While similar study by Fredannaet al., 2012 showed that malaria is main cause of anemia. In other contradicted study showed more than half (68.1%) recognized lack of iron in food as the cause for anemia

The study showed that knowledge of mothers about beneficial food for anemia was poor, however, more than half did not know and the minority mentioned meat, milk. A diet consisting of modified plant source foods combined with a small portion of animal source foods could be an effective strategy to improve micronutrient bioavailability and dietary diversity (Beck et al., 2014). This may be attributed to cultural beliefs, the use of certain food combinations or household

food-distribution patterns could affect iron intake (Kalimbria et al., 2009).

In comparison the results of (Ghimire et al., 2013) in Malawi was 66.2% for poor inadequate nutrition, while 98% of participants of (Abu- Hasira, 2007) in Kathmonda, Nepal knew inadequate iron containing diet as a cause of anemia. Also 64%, 60.5% of the participants in the current study stated that anemia is due to frequent gestations and deliveries and short birth spacing while in Nablus (Dwumfour- Asare and Kwapoug, 2013), 79.6% answered that anemia is due to multiple gestations and short birth spacing.

On the other hand in terms of mother's knowledge about types of anemia, most of types of anemia mentioned by mothers were sickle cell anemia, iron deficiency and foliate deficiency. This also may be due to high proportion of educated mothers.

Furthermore, regarding knowledge of mothers about complications of anemia, the most of mothers were mentioned growth retardation (37.8%), falling heart .However, in other study consistent with our study finding showed that in respect to the complications of anemia, 27.5%, 28.5%, 21.5%, 17%, 30.5% answered for premature birth., exposure to infections, abortions ,complicated labour and post labour bleeding. While the perceived consequences of anemia in pregnancy reported by respondents of (taubli-Asobayiret et al., 2001) in Ghana are death 32%, low birth weight, 25.18% abortion, and preterm 11% .Unfortunately, some women (14%) claim no

knowledge of any effects or consequences associated with anemia in pregnancy.

Moreover, concerning attitudes, the majority of mother agrees that anemia is a serious disease. The finding in line with other study that underscore anemia is an important public health issue in Côte d'Ivoire (Acharya, 2018). Concerning attitudes, the majority of mothers did not agree that they can treat anemia at home with nutrition. This finding indicated unfavorable attitude. The finding in line with a study that stated in terms of health-seeking behaviors, 52% of mothers visit doctors' clinics or private health institutes for the treatment of a malnourished child, whereas 6% keep the child at home. 19% of mothers' perception is negative towards providing GLVs during child sickness. In addition to the above statement, 16% of mothers visited a healer's clinics multiple times, whereas, 27% never visited clinics. On the other hand, the study showed favorable attitude of mothers about they did not agree that anemia is an infectious disease. Similarly, only 25% of mother's access government health services (Indira and Chaudhuri, 2012).

In terms of practice, the vast majority of mothers, they went to doctor when their child infected by anemia. In this study, which is fairly more than the finding in a study done in the Hooghly district of West Bengal where appropriate health-seeking behavior was found only among 32.6% of the caregivers (Kololaet al., 2016).

Similar results were also reported in a study conducted in Ethiopia in the year 2011, which showed that as few as 13.7% had appropriate health-seeking behavior among them (Annadurai et al., 2015). This study reveals that appropriate health-care seeking behavior was present in 84.23% of the caregivers which is much higher than both the previous studies. This might be due to frequent role plays and awareness camps organize in these slums by our institution. A study done among the fisherman community of Tamil Nadu reported better results than this study where all the children were taken to some healthcare centre within 2 days of illness, around 90.82% seeked care immediately and none of the caregivers practiced self-medication (Billinger, 2010). This difference can be attributed to their higher literacy level (100% of the respondents were literates compared to our study findings).

Furthermore, the study showed that the majority of mother's practices in terms of complete the treatment; the majorities were complete treatment of anemia. This may be due to the

advices introduced in the health facility. Also our findings indicated that mothers noticed that their child has pale eyes and comfortable hands in anemic child. In comparison mothers in Bro Sanko community of Ghana (15), 20% stated pale palm and conjunctiva, 3% for shortness of breath and 9% for palpitation while in Malawi (6) 89.2% of women stated paleness around gums, dizziness, 22.7%, chronic fatigue 29.8%, and shortness of breath 15%. while in Nablus, 75.6% stated pallor of face, lips and nail beds and headache (taubli-Asobayireet al., 2001).

VI. CONCLUSION:

The study concluded that; the vast majority of children under five were complete vaccination and breastfeeding. The knowledge of mothers about anemia, symptoms, causes, complications, diseases lead to anemia, types of anemia is fair, but still there was a gap in terms of knowledge such as beneficial foods for anemia.

Attitudes of mothers was favorable in terms of anemia is a serious disease, anemia can't treat at home by nutrition, anemia is an infectious disease and went to doctor when their child infected by anemia. Poor practices was reported among mothers in terms of physical therapy, while good practices was reported in terms of complete treatment of anemia, took their child to health facility directly and eat regular foods when child is anemic. Correlation between educational level and knowledge about anemia is statistically significant. Also there was a correlation between mother attitudes regarding child to be at home and mothers education level.

Recommendations:

- 1- There should be channels for nutrition education of mothers and community at all contact points through the use of mass media to educate the community.
- 2- There is a need for continuous dieting counseling and nutritional education in antenatal clinics to take the issue of anemia in pregnancy.
- 3- Education programme concerning anemia during pregnancy in young women (secondary schools and colleges) should be warranted.
3. Exclusive Breastfeeding for 6 months and to avoid early supplements. Introduction of nutritious foods (high caloric, micronutrient and protein)
4. Protecting children from infections, by measures such as immunization against common childhood diseases.

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