



Research Paper

# Knowledge Attitude and Practice of Mothers with children under five years toward vaccination

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## Abstract:

The knowledge of the mothers on immunization - a public health intervention that has greatly reduced mortality and morbidity globally- is very vital as they play a great role in child care. Their ability to have the right knowledge will enhance their practice and attitude toward immunization. This cross-sectional descriptive study was conducted to study the knowledge, attitudes and practice of mothers with children under five years toward vaccination. The study was included 384 mother which have children under five years, divided into six area. The data was collected through questionnaire and interview, and data was analyzed by handily an excel program. The study shown that the majority 90% of mothers heard about the hear of vaccination, about 52% of mothers had poor knowledge about number of the routine doses which given to the child less than two years, 55% of mother had negative attitudes toward vaccination of child in vaccination campaigns, and 66% of mothers good practice toward their treated with the side effects of vaccines. We recommended to Ministry of Health of Khartoum State should be conducting health education campaigns about vaccination for mothers continuously through media and Provided mothers with vaccination booklets explain the importance of vaccination, routine doses, importance of vaccination card and how to manage the side effects of vaccination, and obligating all health centers to provided health instructions about vaccination for mothers.

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## I. Introduction:

The World Health Organization (WHO) has defined immunization as the process whereby a person is made immune or resistant to an infectious disease, typically by the administration of a vaccine. These vaccines help to stimulate the body's own immune system to protect the person against subsequent infection or disease (WHO, 2016).

Immunization therefore depicts the ability to develop immunity

Immunity being the state of having sufficient biological defenses to avoid infection, disease, or other unwanted biological invasion (WHO, 2012). Immunity also depicts the capability of the body to resist harmful microbes from gaining access into it.

Vaccination is one of the most cost-effective interventions to prevent major illnesses that contribute to child mortality in the country, particularly in environments where malnourished children, overcrowding, poverty and illiteracy reign. Knowledge (K), positive attitudes (A) and appropriate perceptions (P) about vaccination hence become one of the main tools to reduce the incidence of vaccine preventable diseases (VPDs) thus reducing childhood mortality and morbidity. In our society, a large chunk of the population lives in rural areas, where mothers are illiterate and have numerous myths about vaccination; this results in children being unimmunized and susceptible and hence causes a serious policy concern. Evidence about the inequalities in vaccination practices exist even though childhood immunization has been an important part of maternal and child health services since the 1940.

### 1\_4 Objectives of the study:

#### 1\_4\_1 General objective:

To study the Knowledge Attitude and Practices (KAP) of Mother which have children less than five years towards Vaccination

#### 1\_4\_2 Specific objective:

1\_4\_2\_1 To identify Knowledge of mothers about the vaccination of children under five years.

1\_4\_2\_2 To investigate about the attitudes of mothers with children under five towards vaccination.

1\_4\_2\_3 To understand the practices of mothers about vaccination of children under five years.

**3-Methodologies**

**3\_1 Study area:**

Khartoum is the capital of Sudan and it is one of the (18) State of Sudan. Consist of 7 localities, (al-Khartoum locality, al- Khartoum Bahri locality, Omdurman locality, JabalAwliya locality, Sharq an-nil locality, Ummmbadda locality and Karari locality). Its area is (22.142km)<sup>2</sup> and population (5,274,321 in 2008 census).

**3\_2 Study population:**

The target population consist of mothers have children under five years in study area.

**3\_3 Study design:**

This is descriptive cross-sectional study, aimed to study of Knowledge Attitude and practice of mothers which have children under five years toward vaccination.

**3\_4 Sample Size:**

According to the total number of population in albugaa health district 384 using this formula

$$n = \frac{Z^2 Pq}{e^2}$$

n: the sample size.

z: standard normal deviate at confidence level 1.96.

p:the estimation not availablethen p=(50%)

q: 1-p

e :marginal error equal ( 0.05 )

$$n = \frac{(1.96)^2 \times 50 \times 50}{(0.05)^2} = 384$$

**3\_5The sample distribution techniques:**

Study area	Population number	Sample size	%
Algoads	8500	52	13
Alhikma 10	7920	49	13
Albohira	6900	42	12
Alsariha	13856	85	22
Arahamma	10400	64	17
Alryanalhocomi	14956	92	24
Total	62532	384	100

The sample selection divided into six areas, the first house was selected by random sample distribution technique and the second house was selected by adding interval and applying this method into all study area.

**3\_6 Data collection:**

**3\_6\_1 Questionnaire:**

The questionnaire was designed by researchers to purpose of obtain information about knowledge, attitude and practice of mothers which have children less than five years toward vaccination annex, no ( 1).

- The data was collected by researchers face to face with mothers.
- The data was collected by co researchers after they received training for one day.

**3\_6\_2 Interviews:**

The interview was designed by researchers to obtain information about vaccination from staff of the Ministry of health of Khartoum State and Ummmbada locality information face to faceannex, no (2).

**3\_7 Data analysis:**

Data was analyzed by handily an excel program present figures and tables.

**IV. Results:**

Figure (1) Show the mothers according to age  
n=384

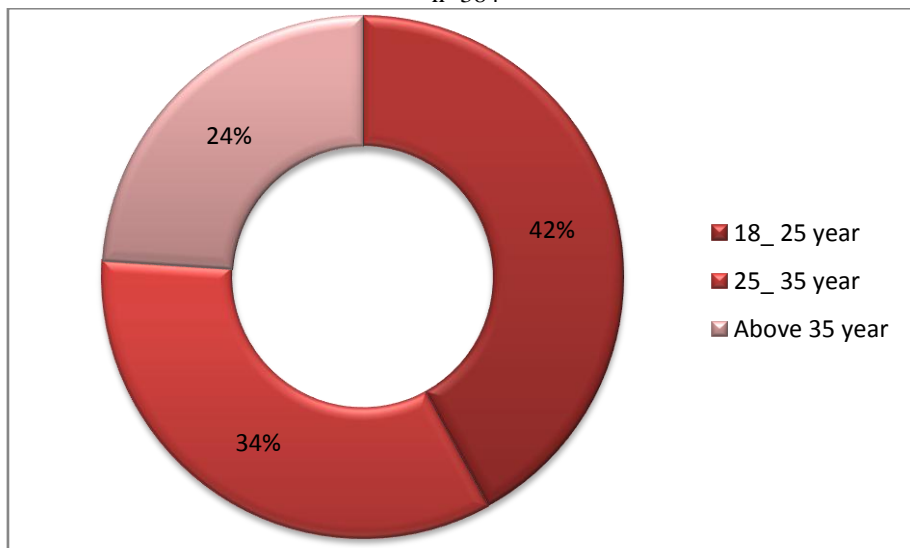


Figure (2) Show the education level of mother's children

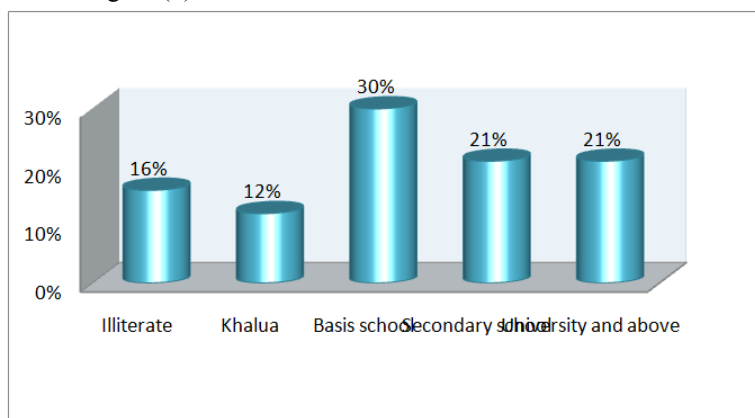


Figure (3) Show the education level of father

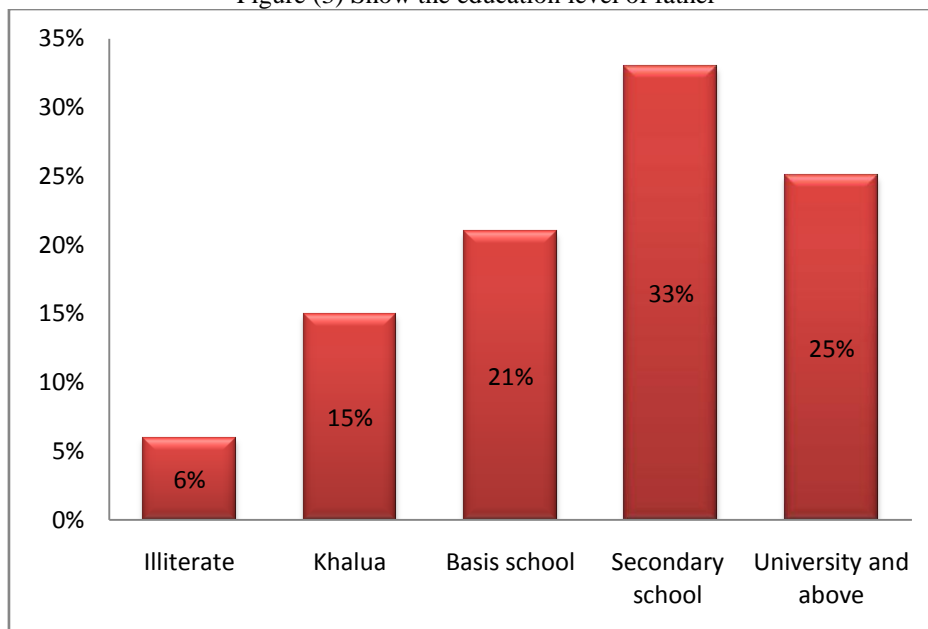


Table (1) Show the size of the family \_

Size of family	No	%
Small family	139	36
Medium family	190	50
Large family	55	14
Total	384	100

Figure (4) Show number of children under five years n=384

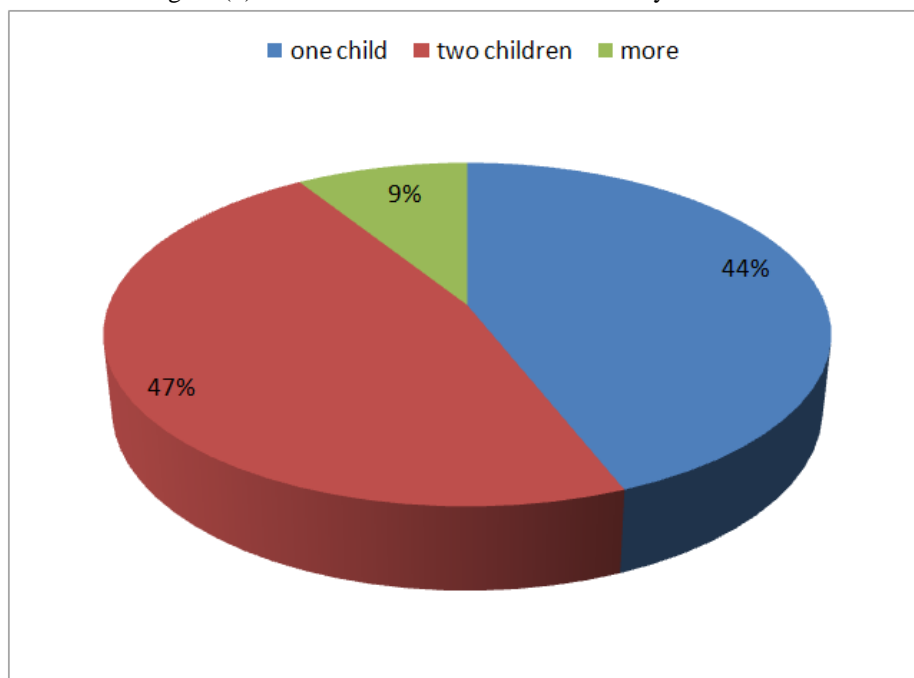


Table (2) Show the Family income  
n=384

Family income	No	%
A_ 500_1000s	149	39
B_ 1000_1500	132	34
C_ more than 1500	103	27
Total	384	100

Figure (5) Show the mothers heard about vaccination

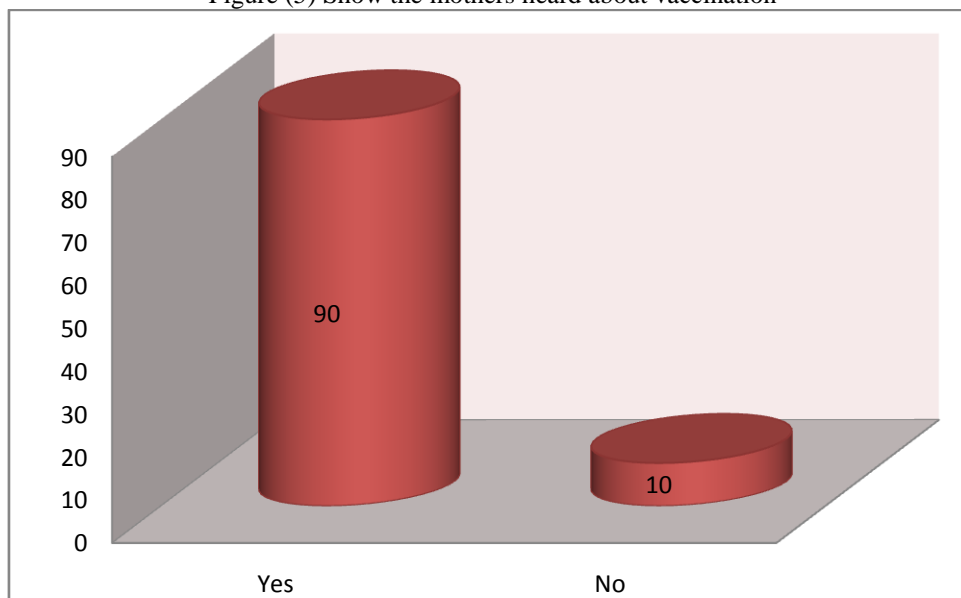


Table (3) Show the source of mothers knowledge about vaccination

The source	NO	%
Media	215	62
Friends	25	7
Health center	87	25
Other	20	6
Total	347	100

Figure (6) Show the mothers knowledge about vaccination\_

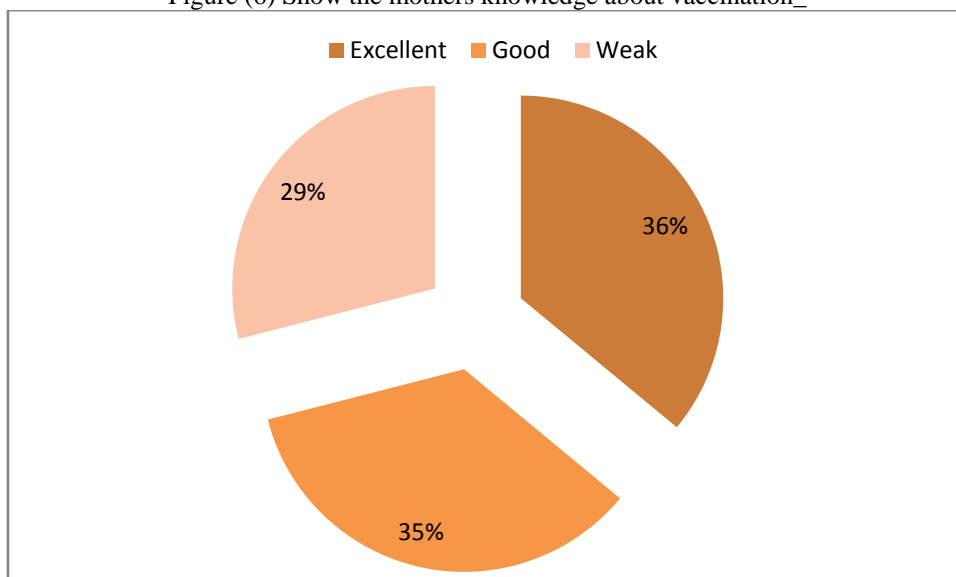


Figure (7) Show the mothers knowledge about importance of vaccination

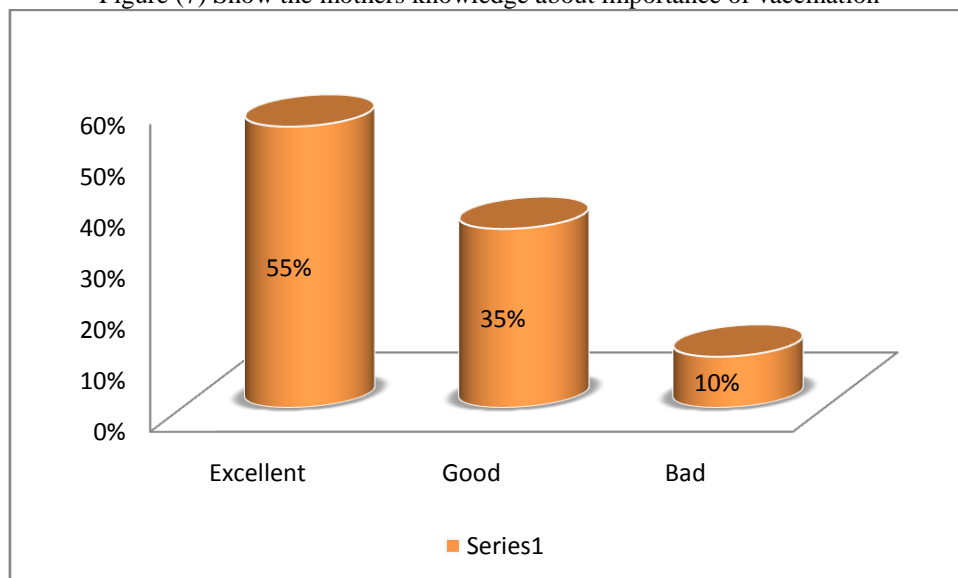


Table (4) Show the mother’s knowledge of vaccine preventive diseases

Degree of knowledge	No	%
Excellent	93	27
Good	140	40
Weak	114	33
Total	347	100

Figure (8) Show the mothers knowledge of vaccination time

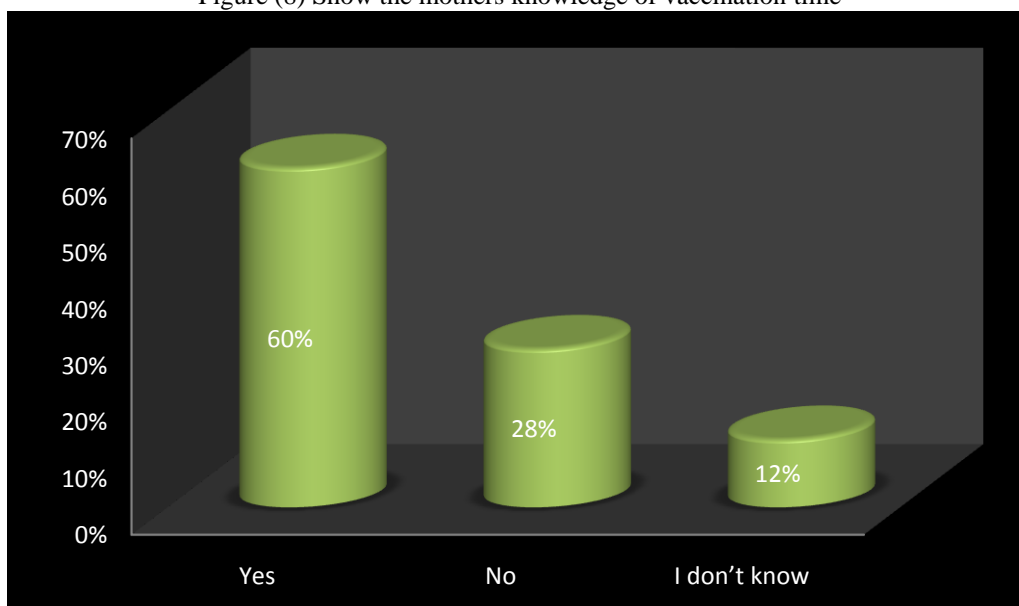


Figure (9) Show the mothers knowledge if their children have vaccination card

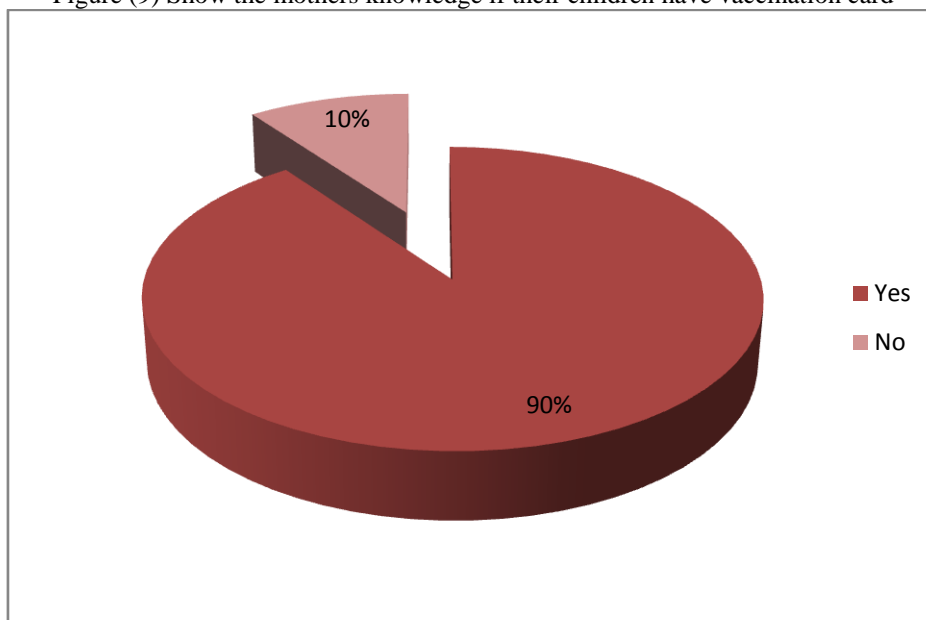


Table (5) Show the mothers knowledge about important of vaccination card

Degree of mothers knowledge	No	%
Excellent	105	34
Good	72	23
Weak	135	43
Total	312	100

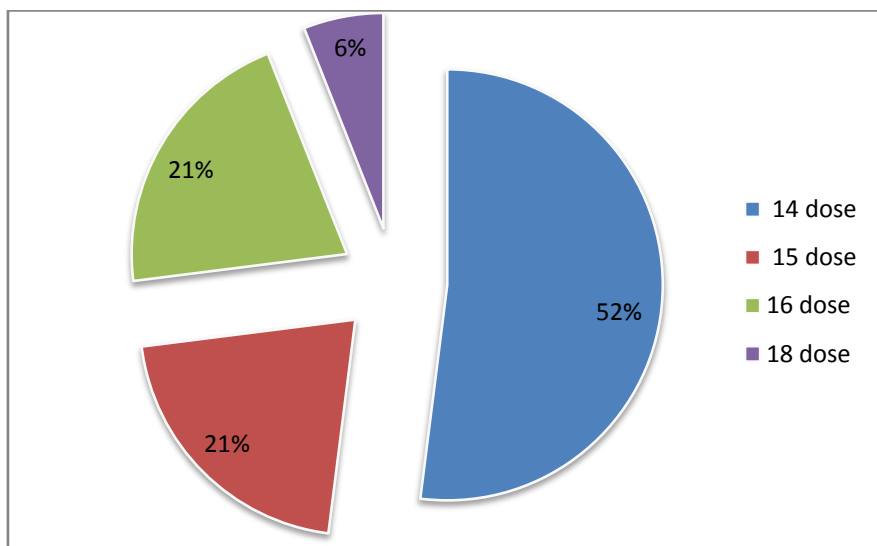


Figure (10) Show the mothers knowledge about number of the routine doses

Table (6) Show the mothers attitude towards vaccination

The mothers attitude	No	%
Agree	70	20
Disagree	245	71

I don't know	32	9
Total	347	100

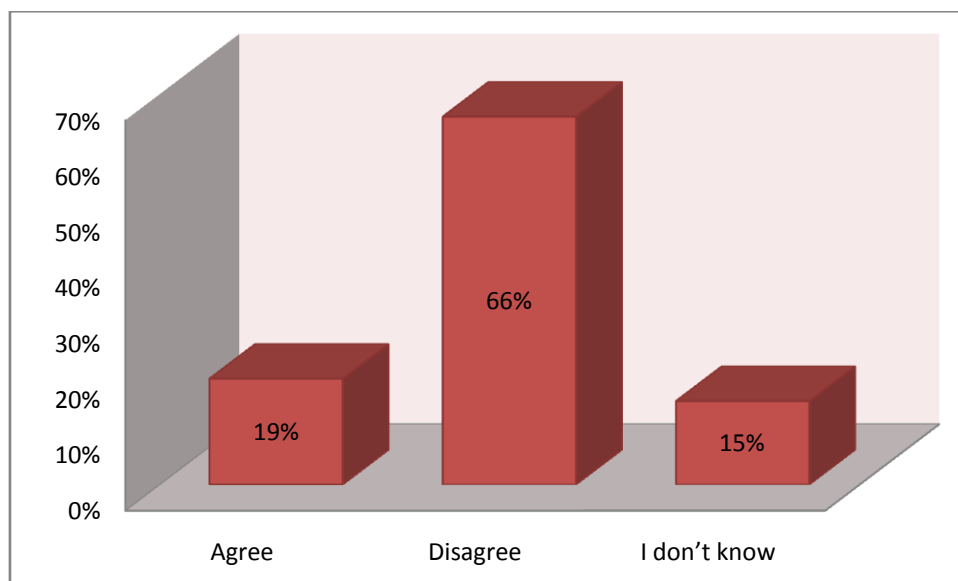


Figure (11) Show the mothers attitude toward Completion of all doses

Table (7) Show the mothers attitude towards baby left without vaccination n=347

The mothers attitude	No	%
Agree	51	15
Disagree	208	60
I don't know	88	25
Total	347	100

Table (8) Shows the mothers practices towards vaccination at specified time

The mothers practice	No	%
Yes	232	67
No	115	33
Total	347	100

Table (9) Show the mothers practice towards sick child and the vaccination time

The mothers practice	No	%
Cancel the dose	49	14
Go after healing	174	50
Go and he is sick	124	36
Total	347	100



## V. Discussion:

The results showed that the most mothers education level was basic education (30%), see figure (2), this education level of mothers can affect on their knowledge which reflected in their attitudes and practice this result agreed with other studies which showed that less than half of mothers (41%) was having only basic school and (11%) of mothers was illiterate.

The result clarified that less than half (47%) of mothers in study area had two children under five years see figure (4), this can affect on mothers care towards their children regarding nutrition and immunization.

The study revealed that 39% of families belonged to income level from 500-1000SD see table (2), indicating low economic status affecting their ability to afford transportation costs to health centers for receiving the vaccination doses and may be reason for mothers not to fully vaccinate their children.

## VI. Conclusion

The study concluded that the majority of mothers heard about vaccination, and majority of them had a well conception about vaccination time, low socio economic status was affecting their ability to vaccinate their children although they had positive attitude and knowledge about the importance of vaccination.

### 6\_1 Recommendation:

- 1- Ministry of Health should conduct health education campaigns about vaccination for mothers continuously through different media channels.
- 2- Health authorities must hold awareness sessions for mothers as well as social group meetings to exchange information on maternal and child health requirements including vaccinations.
- 3- Health authorities must provide mothers with vaccination booklets explaining the importance of vaccination, importance of vaccination card, routine doses and how to manage the side effects.

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