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Feeding Disorders with Gastroenteritis in Children under Five Years

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Abstract: **Feeding problems in infants and young children include, gastroenteritis, too much food, too little food or fluid loss. Are usually minor but sometimes have serious consequences and require medical attention or hospitalization. Feeding disorder of infancy and early childhood is commonly diagnosed if the child meets the following diagnostic criteria. He or she has not gained weight, or has actually lost weight, for at least one month. And not have an underlying medical or mental condition causing the disorder. Feeding disorders should be addressed before hospitalization. Nutritional counselling and/or regular meetings with specialists are sometimes needed to overcome the child, feeding disorder. Treatment is often done in a team approach between mothers, other caregivers, paediatrician, and professionals such as dieticians, therapists, and social workers. The results of this study revealed protective effects of breast-feeding and the wright complementary food using and its relation to feeding disorders illness as well as gastrointestinal diseases during the first years of life. The statistical analysis based on –time- methods of breast feeding, and different types of complementary food used for different ages of children and the time of starting of supplementary food, both breast feeding and for how long child will be fed are both thought to be affect in child health outcomes which were found about, 82% of mothers in this study were weaned their children in infant age and the per cent of 32% weaning causes is pregnancy . Infants breast-feeding was discontinued during the first 9 months were 42.5% and gastroenteritis notes after complementary feeding. During the second 6 months of life is 55% and most of the causes is due to -complementary feeding types and it's the starting time is important to avoid over feeding and we found that 92,5% were used complementary feeding and 95% using bottle feeding which need more care for child feeding .**

Keywords: **Feeding Disorders with Gastroenteritis, complementary feeding.**

1. INTRODUCTION

Feeding problems in infants and young children include, gastroenteritis, too much food, too little food, or fluid loss, are usually minor but sometimes have serious consequences and require medical attention or hospitalization. Proper nutrition and feeding techniques can alleviate some feeding problems. **(Walker, RB, Mothers ,(2006) .**

Acute gastroenteritis accounts for millions of deaths each year in young children, mostly in developing communities. In developed countries it is a common reason for presentation to general practice or emergency departments and for admission to hospital. Dehydration which may be associated with electrolyte disturbance and metabolic acidosis, is the most frequent and may lead to dangerous complication. (Heward, Hond,2010) .**Breastfeeding**.is the normal way of providing young infants directly from female human breasts (via lactation) rather than from a baby bottle or other container with the nutrients, they need for healthy growth and development. A longer period of breastfeeding was associated with a shorter duration of some middle ear infections (Otitis media with effusion) in the first two years of life. (Kristy, XL H. SF1. (1994) .

Artificial feeding is associated with more feeding disorders in infants in both developing and developed countries. **Feeding- eating disorders,** are frequent in pediatric patients and in some cases, can be associated to digestive motility

disorder. Gastro-enteritis is nowadays, considered a risk factor for the development of feeding/eating disorders. (David, H, Rubin, 2007) Gastroenteritis remains a common illness among infants and children throughout the world . Stomach flu, or gastroenteritis, is an inflammation of the lining of the digestive tract. And may cause if bacteria or a parasite is to blame, if the child may have ingested contaminated food or drinking water Or may have picked up the illness by coming in contact with infected matter and .In addition, Young children may develop signs and symptoms of gastroenteritis as a reaction to a new food, or child may fed with un suitable food with his age. (Laurence, Knoott , 2014.) **Breast milk content** has just the right amount of fat, sugar, water, and protein that need for baby's growth and development . It is recommended that mothers exclusively breastfeed for six months or more without the addition of infant formula or solid food. After the addition of solid food, mothers are advised to continue breastfeeding for at least a year or more .Human breast milk is the healthiest form of milk for babies, which promotes health and helps to prevent disease (Mohrbacher, N, 1997) . Nutrition and developmental issues While it seems clear that infants should ideally be breastfed for at least a year or longer. it is also important to realize that after a certain age, human milk alone will no longer supply all of an infant's nutritional requirements. At four to six months of age, the infant is developmentally ready to accept solid foods. Sucking and chewing The learned component is conditioned by oral stimulation. If a stimulus is not applied when the neural development is taking place, then the infant may become a poor eater. (Huggins K, Ziedrich L.1994). **Weaning** is the gradual process of introducing semi-solid food whilst continuing with breast or infant formula milk. It takes place over a period of months when infants progress through different food consistencies, from pureed/ mashed and soft finger foods to minced, to cut up food until they can eat normal family meals. The purpose of introducing solid foods alongside an infant's milk feeds is to give extra energy and nutrients when milk no longer provides enough to sustain the baby's rapid growth, optimal health and development. And provide the chance to try new tastes and textures based on family foods.(Dewey K. Nutrition. 2001), **-food to avoid -** .Salt – infants' kidneys are not fully developed at six months of age and salty foods can be harmful. Processed foods such as stock cubes, gravy mixes, packet soups, instant mashed potato, sauces, ready meals and salty snack foods like crisps should be avoided. Sugar –which can lead to dental decay and increasing of weight Honey – can contain botulinum bacteria and needs to be avoided until after the age of one year . Nuts – children under five should avoid whole nuts due to a risk of choking. High fiber- fatty diets ,are not recommended, as these diets are very bulky and can make it difficult for infants and young children to eat enough to meet their energy requirements for growth.

(Kimani-Murage, E. 2011).commercial baby food Providing home-prepared weaning foods encourages easier progression to normal family foods than using mainly commercial baby foods . (Al-Shoshan AA. 2007),

Food allergy and intolerance are types of food sensitivity. If someone has a food allergy, their immune system mistakes a food as unsafe and this cause a serious and possibly life-threatening reaction , and it should medically diagnosed and treated. This will require appropriate dietetic advice support to ensure that allergens are removed from the diet whilst meeting nutritional requirements. Foods that commonly cause allergies (milk, eggs, wheat, nuts, seeds, fish and shellfish, ets… (Fiocchi, A., Assa'ad, (2006).

Justification:

This study will be carried out in order to find the factors and causes of feeding disorder and the impact in child health disease on the health of the children and its relation with the child feeding to eliminates this risks for children under five year.

General Objectives:

To assess the different causes of children feeding disorders - To evaluate mothers knowledge about supplementary food and the important of breast-feeding.

Specific objectives:

To identify different types used of supplementary food and its relation with child age and its relation with gastroenteritis to know different reasons for weaning. To write different recommendations

2. MATERIALS AND METHODS

This is Cross sectional hospital & clinical based study which is prospective study conducted to assess different factors cause gastroenteritis and it's the relations with supplementary feeding disorders. -This study were conducted in king

Fahad hospital in children under five years under the care of admitting pediatrician section and Al-Dhafeer clinic center with mothers attend during the period of the study and have children with symptom and sign of gastroenteritis..

Sample techniques:

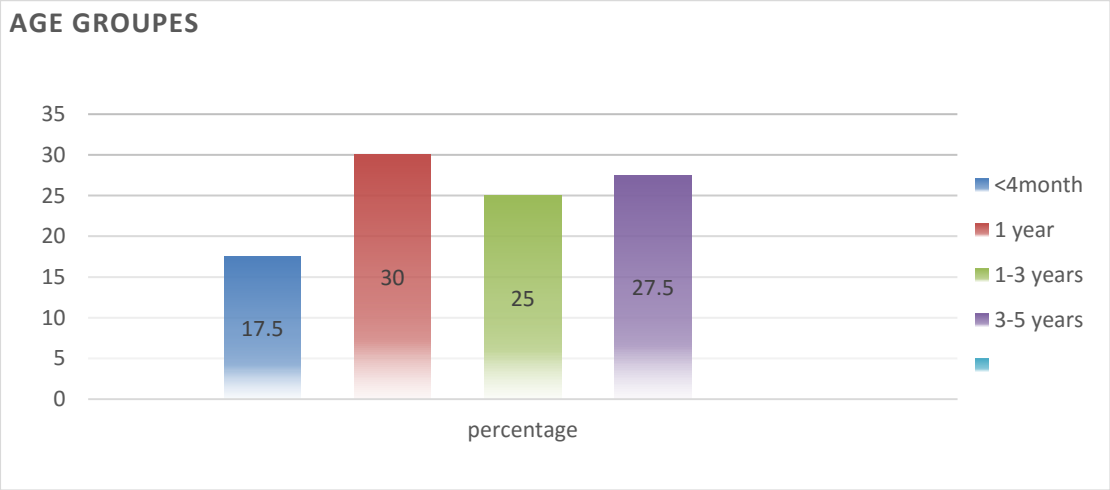
Comprehensive sample from mothers of children under care of pediatrician section –King Fahad hospital where take . The selection was fulfills the inclusion Criteria -Mothers of children suffering from gastroenteritis were selected (random sampling).Exclusion criteria Children with other disease, And Children with over five years of age

Study variables:

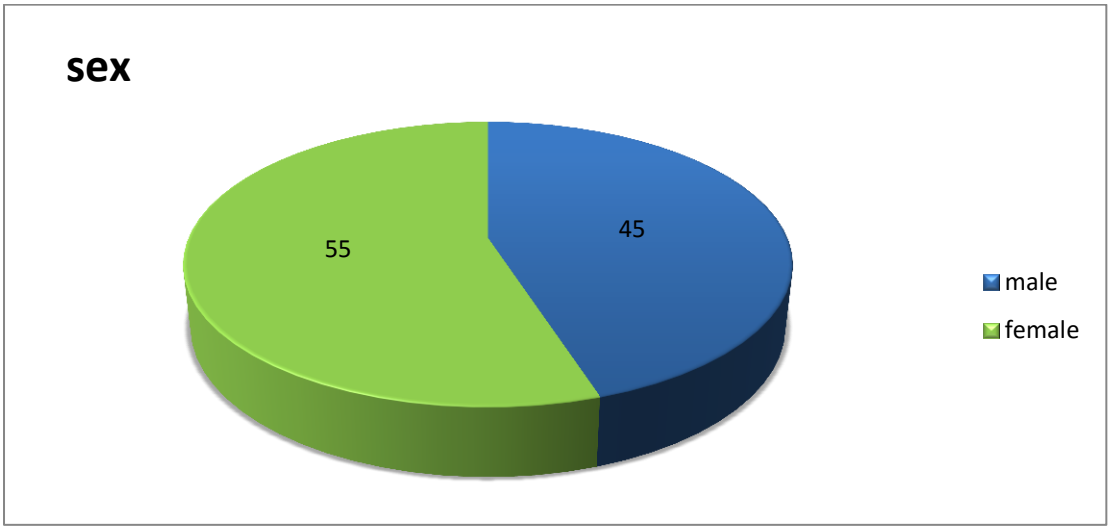
Demographic data (age - sex – residence). -Knowledge about weaning food , Knowledge about feeding disorders. -Mothers behavior and attitudes and How child-feeding were started .The data were collected by using questionnaire for Mothers who briefed about the purpose of the study to enlist the cooperation before starting.And Observation During hospital workday. The Secondary data This data were obtained from books, references books, research report and internet .

The results -Graph NO (1):

With regard to the incidence of the disease , the above graph revealed that , (17.5%)of children were in less than 4 months, but the highest per cent is about(30%) in one year of age and 25% of children in this study in one to two years while (27.5%) in between two to fifth of years .



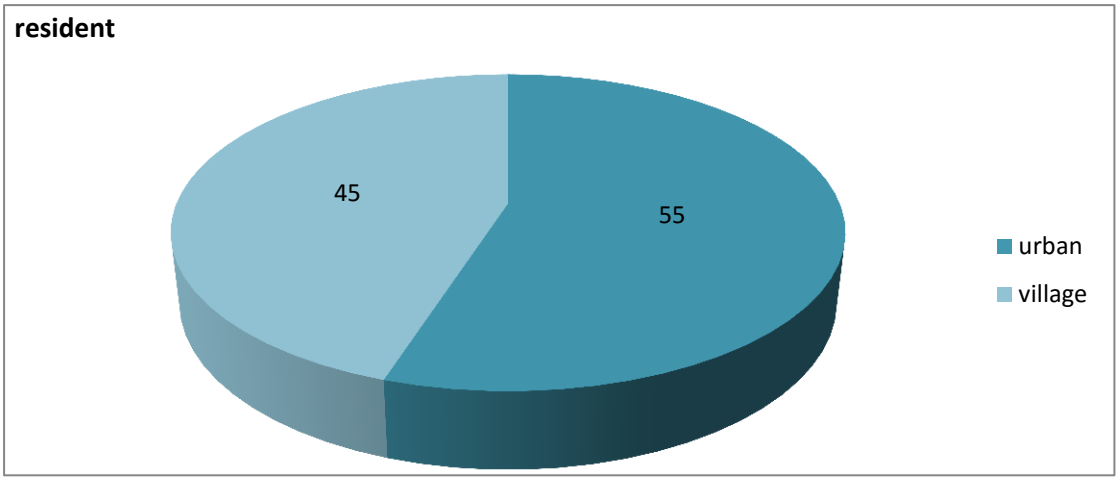
Graph NO (2):



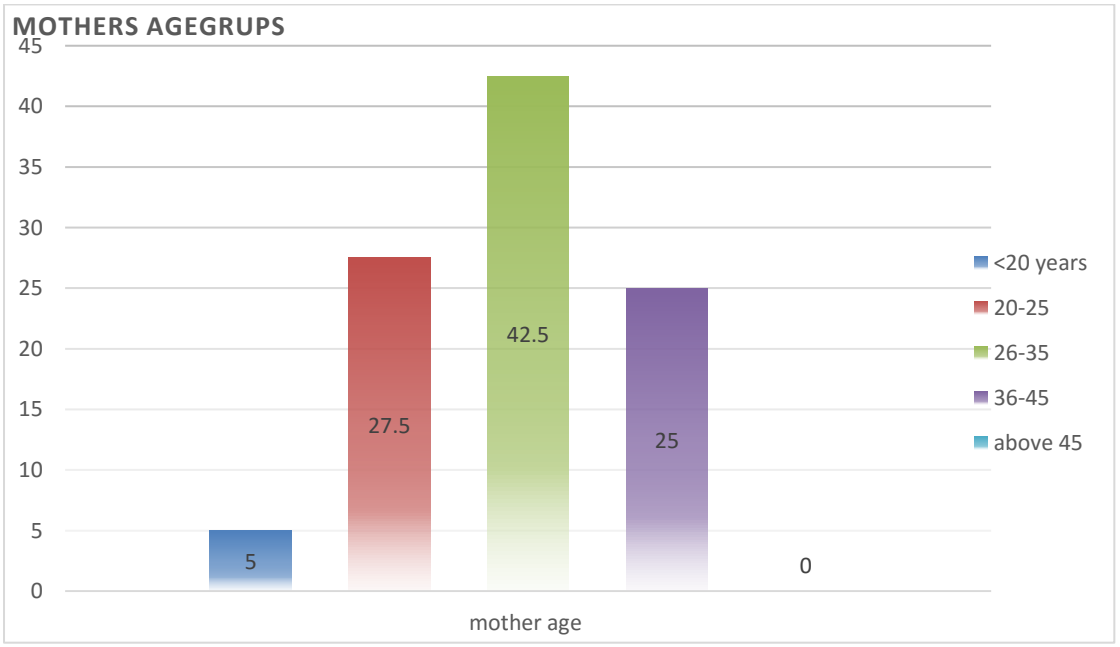
The above graph shows that the (45%) of children in this study were male and the rest (55%)were female .

Graph no (3):

The above shape shows (55%) of participants were from urban area and (45%) from village .

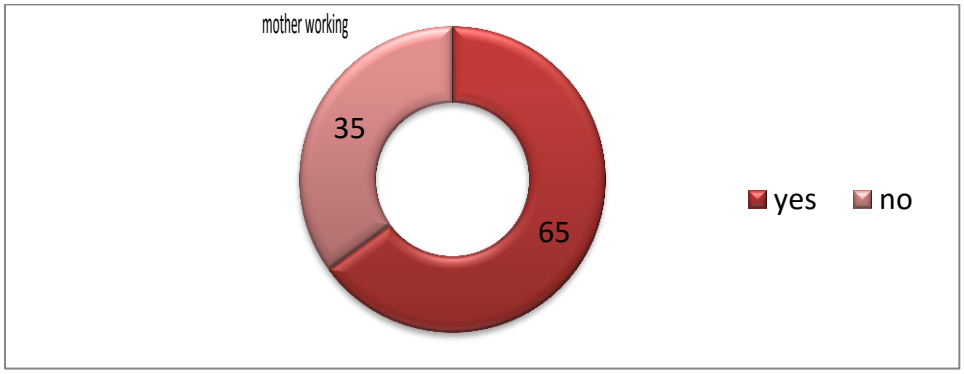


Graph NO (4):



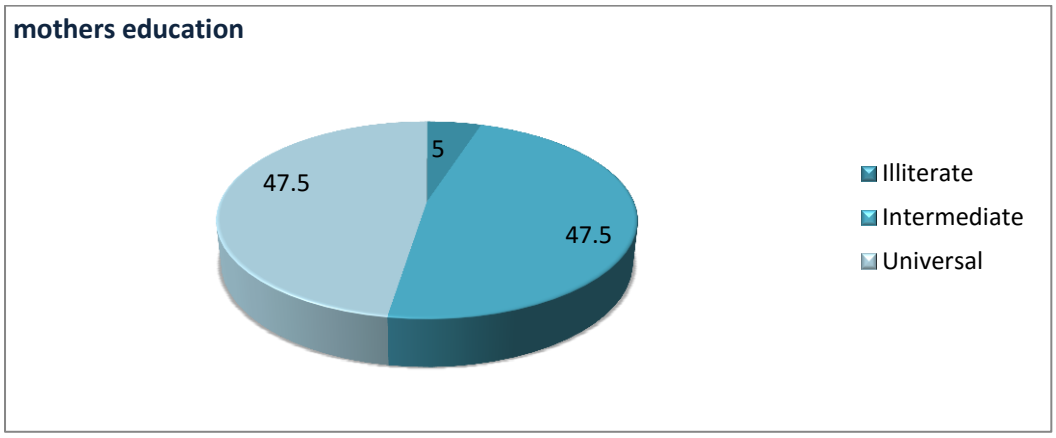
The above shape Show the high prevalence (42.5%) among children from mothers ages between 26 to 35 and 27.5% from mothers ages between 20 to 25 while 25% of participants mothers in ages between 36 to 45 and only 5% in age less than 20 years .

Graph NO (5)



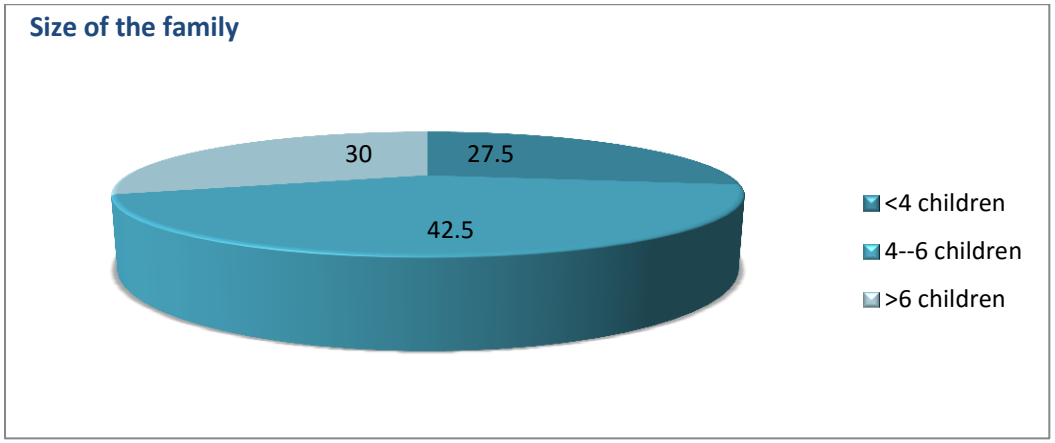
Graph no 5 represent that about , (65%) of cases were among the children of working mothers while only (35%) from none working.

Graph NO (6):



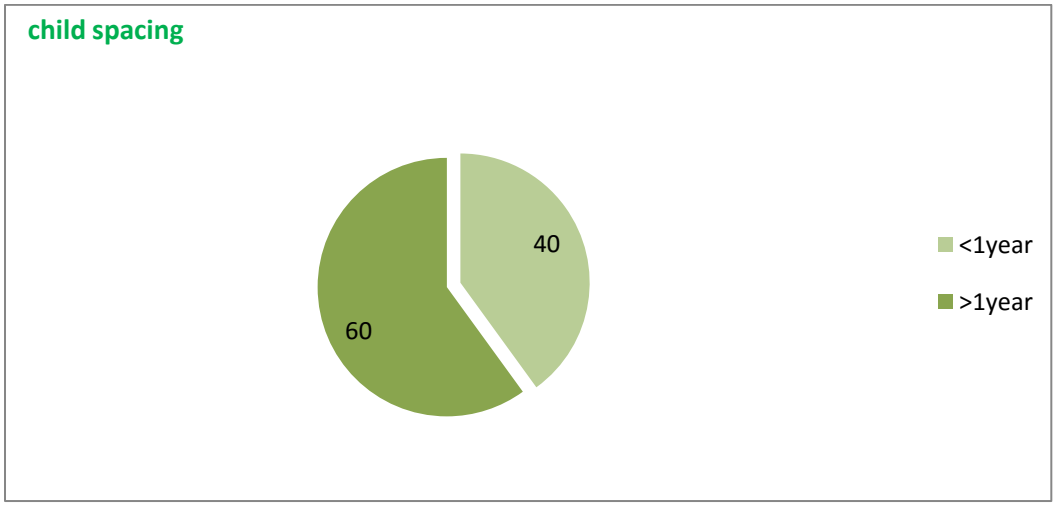
It was found that (47.5) of mothers in this study have a universal education, and the same of this per cent are have intermediate level of education, while only (5%) found among illiterate mothers.

Graph NO (7):



Graph 7 represent that , (27.5%) of family size were less than 4 children and about (42.5%)have 4 to 6 children, and the rest(30.%) have a family sized more than 6 children .

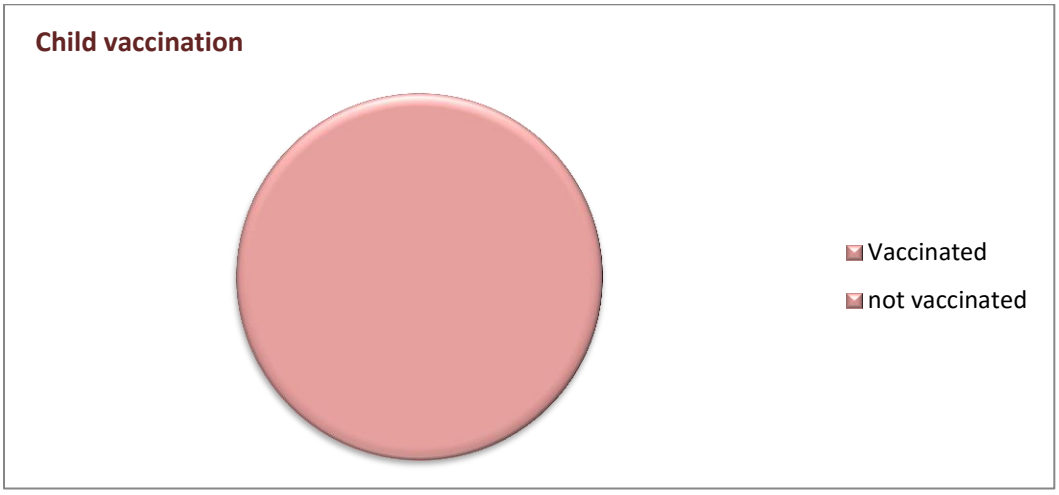
Graph NO (8)



The result in the above graph shows (40.5%) of child spacing were more than 1year while (60%) were less than 1 year

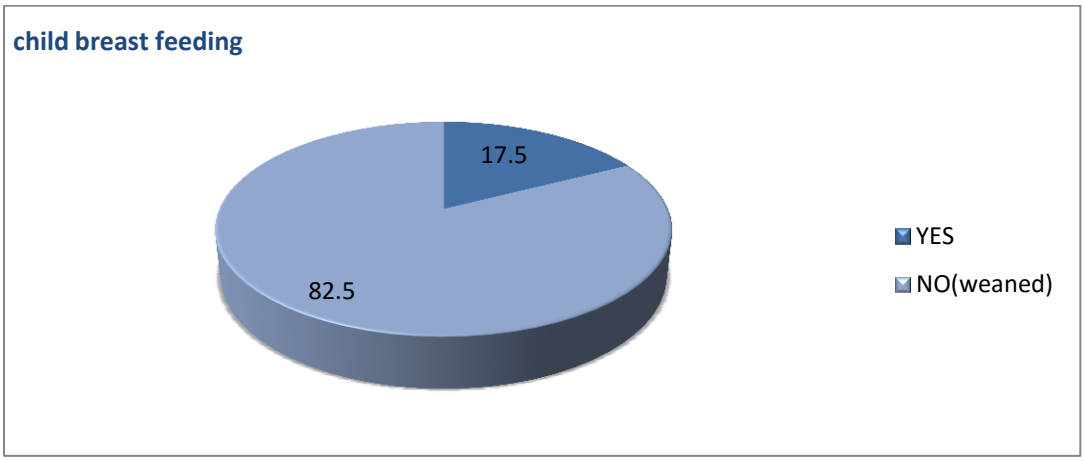
B – Medical evaluation:

Graph NO (9):



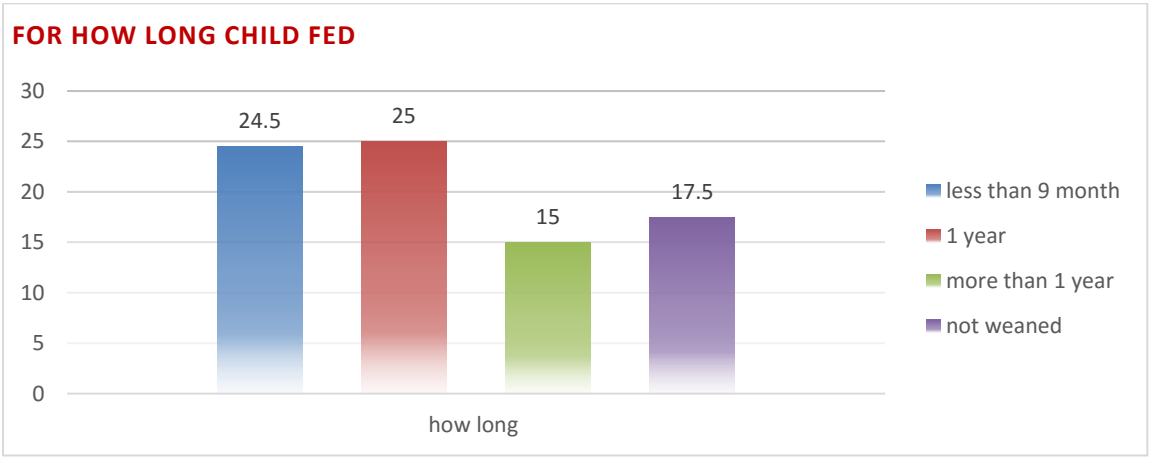
In this study (100%) of children were vaccinated (Graph NO 9) .

Graph NO (10):



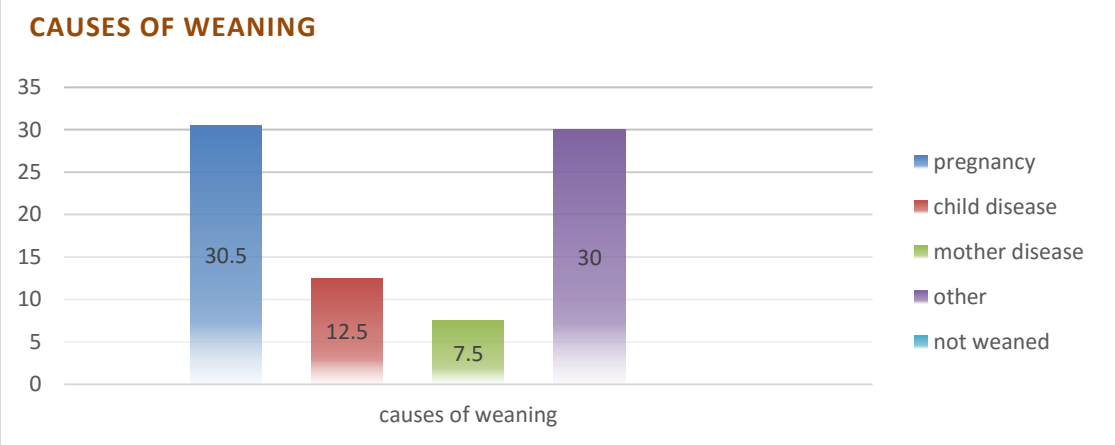
The above result show that, most of children in this study (82.5%) are weaned (not breast-feeding) while only 17.5% are continua's breast-feeding

Graph NO (11):



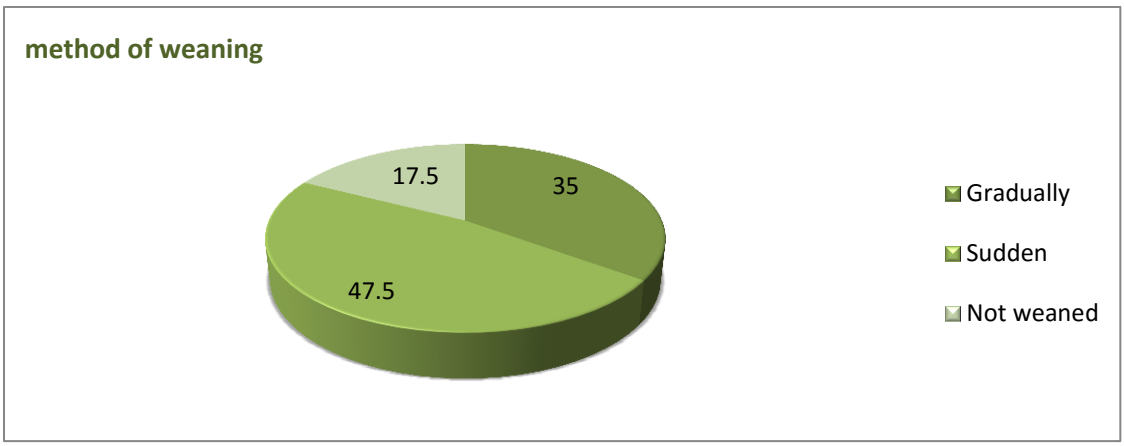
The above result shows (24.5%) of children were breast fed at less than 9 months and about (25%)were breast fed for one year while (15%) were breast fed for more than one year and the rest were not weaned.

Graph (12):



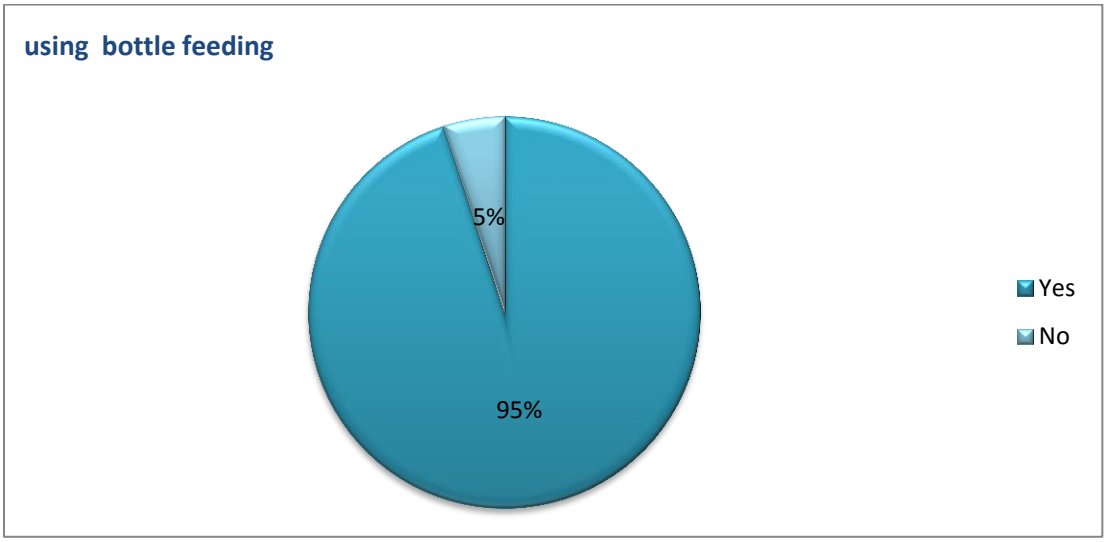
The highest per cent in causes of weaning which shows in graph 12 were the pregnancy which were about(30.5%) and about (30%) weaned because of others causes and only 7.5 weaned as the result of mother disease, while about(12.5%) of children were weaned because of child disease and the rest (17.5%)were not weaned .

Graph NO (13):



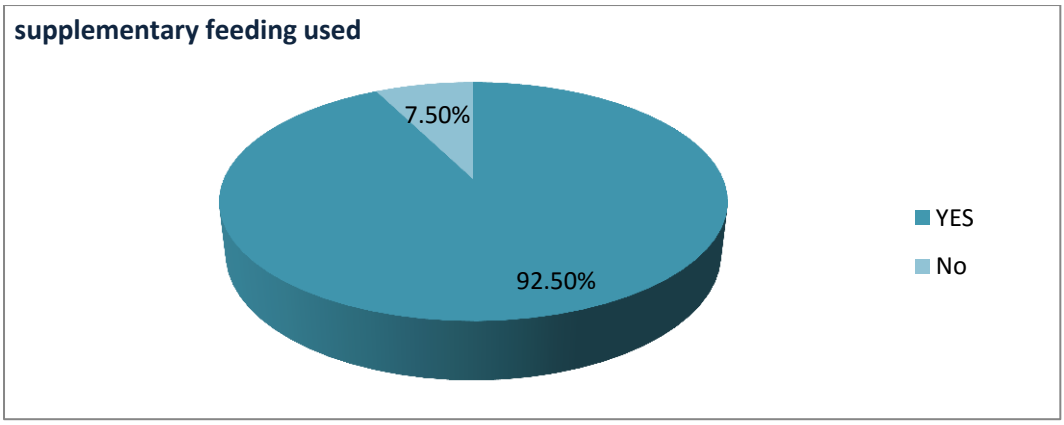
The above graph shows (35%) of children in this study were weaned gradually and the rest (47.5) were weaned suddenly whereas 17.5 is continues in breast feeding .

Graph NO (14):



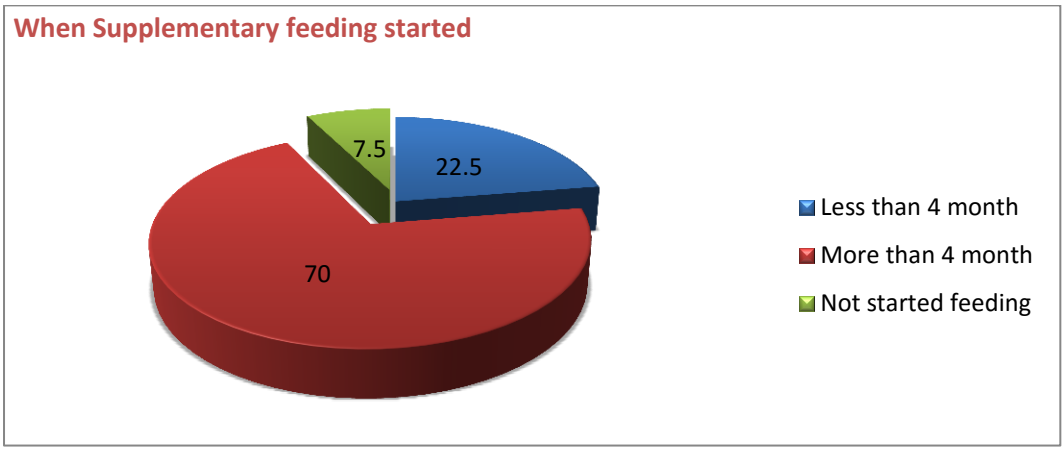
95% of mothers in this study (graph 14) were used bottle feeding for their children while 5% were not .

Graph NO (15):



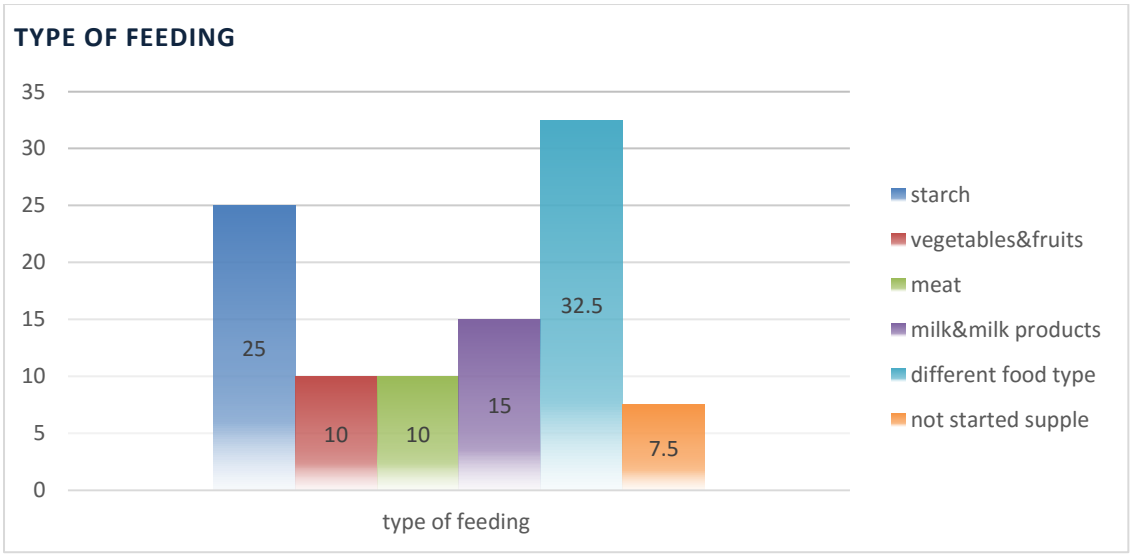
About 92.5 % of children in this study (graph 15) were started supplementary feeding while only 7.5% were not .

Graph NO (16):



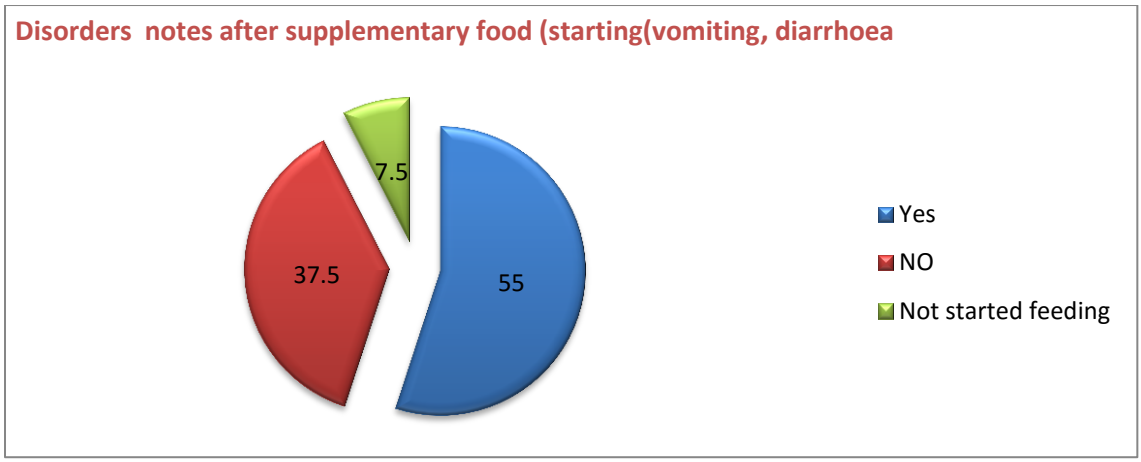
The above graph shows that about 70% supplementary feeding were started in more than 4months of children ages while only 22.5% started age at less than 4 months while 7.5 were not used supplementary feeding.

Graph NO (17):



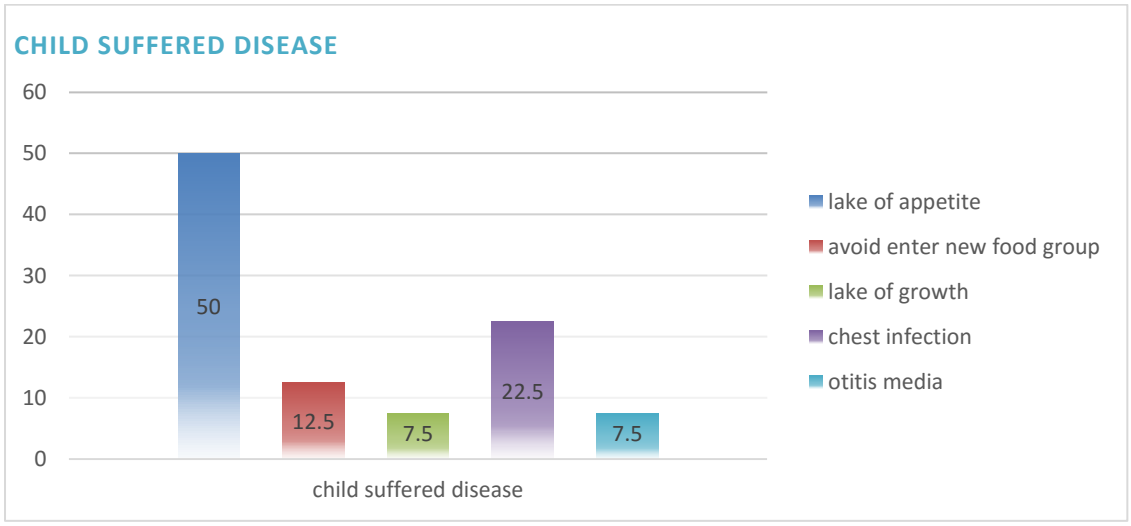
The above graph represents that about 25% of mothers were more concentrated in starch food for their children and (10%) used vegetables in feeding of their children and all so for using meat ,and 15% were used milk and milk products whereas the high per cent used different foods and 7.5 were not stated child feeding .

Graph NO (18):



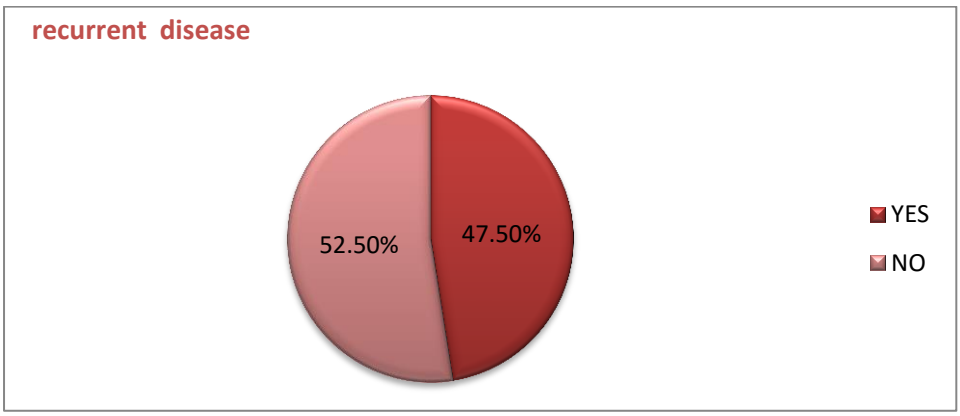
55% of mothers in this study(graph 18) were noted some feeding disorders in child directly after starting supplementary feeding wheras 37.5.5% were not noted that .

Graph NO (19):



the above shape represent that the high prevalence of diseases suffered before, among children were , lack of appetite (50%) ,followed by chest infection which were about 22.5% and 12.5% of children were suffered from avoiding inter new food groups whereas 7.5% suffered from lack of growth and only 7.5 % were suffered from otitis media .

Graph no (20):



The above shape represent that , About 52% of children in this study have no recurrent of diseases . while 47% have a recurrent disease .

age * breastfeeding Cross tabulation				
Count				
		breastfed		Total
		yes	no	
age	<4 month	5	2	7
	1 year	2	10	12
	1-3 year	0	10	10
	3-5 year	0	11	11
Total		7	33	40
PV		.003		

age * how long Brest fed Cross tabulation						
Count						
		howling				Total
		<9 months	one year	>one year	not wended	
age	<4 month	1	1	0	5	7
	1 year	9	1	0	2	12
	1-3 year	2	3	5	0	10
	3-5 year	5	5	1	0	11
Total		17	10	6	7	40
P V			.039			

age * causes weaning Cross tabulation							
Count							
		causes					Total
		pregnancy	child disease	mother disease	other	not weaned	
age	<4 month	0	2	0	0	5	7
	1 year	6	1	1	2	2	12
	1-3 year	4	0	0	6	0	10
	3-5 year	3	2	2	4	0	11
Total		13	5	3	12	7	40
PV			.002				

age * starting of supplementary food Cross tabulation				
Count				
		starting		Total
		yes	no	
age	<4 month	4	3	7
	1 year	12	0	12
	1-3 year	10	0	10
	3-5 year	11	0	11
Total		37	3	40
P V		.029		

age * methods Cross tabulation					
Count					
		methods			Total
		gradually	sudden	not weaned	
age	<4 month	0	2	5	7
	1 year	1	9	2	12
	1-3 year	5	5	0	10
	3-5 year	8	3	0	11
Total		14	19	7	40
P V	.000				

age * starting of supplementary food Cross tabulation				
Count				
		starting		Total
		yes	no	
age	<4 month	4	3	7
	1 year	12	0	12
	1-3 year	10	0	10
	3-5 year	11	0	11
Total		37	3	40
P V	.029			

age * types of sup- foods cross tabulation								
Count								
		types						Total
		starches	vegetables & fruits	meat	milk &milk products	different food types	not started supple-	
age	<4 month	0	0	0	3	1	3	7
	1 year	6	2	1	2	1	0	12
	1-3 year	1	2	0	1	6	0	10
	3-5 year	3	0	3	0	5	0	11
Total		10	4	4	6	13	3	40
pv	.002							

causes * how long breast fed cross tabulation						
Count						
		howling				Total
		<9 months	one year	>one year	not weaned	
causes	pregnancy	8	3	2	0	13
	child disease	2	3	0	0	5
	mother disease	3	0	0	0	3
	other	4	4	4	0	12
	not weaned	0	0	0	7	7
Total		17	10	6	7	40
p value	.000					

causes * methods weaning cross tabulation					
Count					
		methods			Total
		graduall y	sudden	not weaned	
causes	pregnancy	1	12	0	13
	child disease	2	3	0	5
	mother disease	2	1	0	3
	other	9	3	0	12
	not weaned	0	0	7	7
Total		14	19	7	40
P value .0000					

age * when starting supp- food Crosstabulation					
Count					
		when			Total
		<4monthes	>4 months	not use	
age	<4 month	3	1	3	7
	1 year	2	10	0	12
	1-3 year	3	7	0	10
	3-5 year	1	10	0	11
Total		9	28	3	40
BV .002					

causes * breast fed cross tabulation				
Count				
		Breast fed		Total
		yes	no	
causes	pregnancy	0	13	13
	child disease	0	5	5
	mother disease	0	3	3
	other	0	12	12
	not weaned	7	0	7
Total		7	33	40
p value .000				

3. CONCLUSION

We conclude that there may be a relation between a complementary feeding and feeding disorder, which can be lead to another complication **,** Also we conclude that The high per cent in sudden and early weaning is due to pregnancy, Using of complementary food in the most cases were in a very early age of children and also bottle feeding , According to our observation there were in sufficient dietician available in primary health care which is very important, to gives different advises and encourage women to natural breast-feeding.

4. RECOMMENDATION

A Registered dietitian with expertise child care should be providing nutrition advice to all targeted women groups **,**Good advises for women is very important to improve their knowledge , skills, and enabling them to take effective improve of

feeding disorders ,additional advice should be followed regarding types of food introduced and sterilization of feeding equipment ,A comprehensive clinical assessment should provide the information needed to develop the most appropriate management plan to eliminate the child's feeding problems,Nutritional education should be introduced through different communication media, Deferent additional studies in the same subject must be conducted .

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