

# RESULTS

# RESULTS

## THE RESULT OF THIS STUDY WERE

Classified into four (4) parts :

### I- First part related to :

- \* Socio demographic data of mothers, (Table 1).
- \* Characteristics of children (Table 2).

### II- Second part (2) :

Deal with the mother's pre-test knowledge score, the post - test and the follow up related gastroenteritis, dehydration, feeding during gastroenteritis and rehydration, child nutrition after convalescence and steps of prevention and control of gastroenteritis, Tables (3-13)

### III- The third part (3):

Deal with the mother's pre-test practical score, post-test and follow up related to baby bath, hand washing, breast care, Bottle care, ORS preparation and Rate of administration of ORS, Tables (14-18)

### IV- Fourth Part (4):

Relationship between child's sex and their mother's knowledge and practice before and after the program Tables (19 - 20).

Relationship between mother's age and their knowledge and practice before and after the program Tables (21 - 22).

Relationship between mother's knowledge and practice and child's ranking before and after the program Tables (23 - 24).

Relationship between mother's knowledge and practice and their education before and after the program Tables (25 - 26).

### Part 1 : Sociodemographic Characteristics of Study Subjects .

**Table (1) : Number and Percentage Distribution of Mother's According to Their Socio-Demographic Data:**

Characteristic	Total number of mothers = 50 (100%)	
	No.	%
<b>Age :</b>		
20 -	6	12.0
25 -	30	60.0
30 - 53	14	28.0
$\bar{X}$	29.66	
$\pm$ SD	$\pm 7.755$	
<b>Education :</b>		
Illiterate	30	60.0
Read & Write	5	10.0
High education	15	30.0
<b>Occupation :</b>		
Working	20	40.0
House wife	30	60.0

This table showed that, the mean age of mothers were  $29.66 \pm 7.755$ . regarding the education level of mothers, it was found that (60%) of them were illiterate, only (10%) of them can read and write and the remaining (30%) of them were highly educated. In relation to mother's employment, this table clarified that the majority (60%) of them were house wife while the minority (20%) were working mothers.

**Table (2) : Number and Percentage Distribution of Children's in Relation to Their Characteristics :**

Characteristic	Total number of mothers = 50 (100%)	
	No.	%
<b>Age per month:</b>		
0 - 6	7	14.0
6 - 12	27	54.0
12 - 18	2	4.0
18 - 24	9	18.0
24 - 30	3	6.0
30 - 36	2	4.0
Total	50	100.00
Mean	12.28	
+ SD	+ 8.07	
<b>Sex :</b>		
Male	26	52.0
Female	24	48.0
<b>Child Ranking :</b>		
First	30	60.0
Second	15	30.0
Third	4	8.0
Fourth	1	2.0
<b>Pattern of feeding:</b>		
Breast feeding	47	94.0
Artificial feeding	1	2.0
Mixed	2	4.0

As observed from this table that, the mean age of children were  $12.28 \pm 8.07$ , more than half of them (52%) were males and the rest (48%) were females. Regarding the child's ranking, this table illustrated that (60%) of them were the first child and about one third (30%) of them were the second child and few of them were the third and fourth child (8% and 2%) respectively. Regarding the pattern of feeding, most of children (94%) received breast feeding only (2%) of them were artificially fed and the other (4%) got mixed feeding.

**Part II : Mother's Knowledge Regarding Gastroenteritis  
Before, Immediately and Six Months After Program.**

**Table (3) : Percentage Distribution of Mothers Knowledge Regarding  
Definition and Causes of Gastroenteritis Before,  
Immediately and Six Months After the Program.**

Items	Total number of mother = 50 (100%)						*Paired t.Test	**Paired t.Test
	Pre %		Post %		After 6months %			
	Sat.	Unsat.	Sat.	Unsat.	Sat.	Unsat.		
Definition	36.0	64.0	100.0	0.0	74	26	9.428	4.178
$\bar{X}$	0.36		2.0		0.74		& P<0.001	& P<0.01
$\pm$ SD	$\pm$ 0.48		$\pm$ 0.40		$\pm$ 0.44			
Causes	38.0	62.0	78.0	22.0	80	20	5.772	0.337
$\bar{X}$	0.38		0.78		0.80		& P<0.001	& P>0.05
$\pm$ SD	$\pm$ 0.49		$\pm$ 0.42		$\pm$ 0.40			

\* t.Test between pre and post

\*\* t. Test between post and after six months .

This table revealed that there was a highly significant difference between the pre and immediate post regarding definition of gastroenteritis ( $t = 9.428$ ,  $P < 0.001$ ) also there was significant difference between the immediate post test and after six months ( $t = 4.178$ ,  $P < 0.01$ ) Regarding mother's knowledge about causes of gastroenteritis, it was noticed that, there was a highly significant difference between pre and immediate post test ( $t = 5.772$ ,  $P < 0.001$ ) but there was no significant difference between immediate post test and after six months  $t = 0.337$  ( $P > 0.05$ ).

Table (4) : Percentage Distribution of Mother's Knowledge Regarding Signs and Symptoms and Complication of Gastroenteritis Before, Immediately and Six Months After The Program.

Items	Total number of mother = 50 (100%)						*Paired t.Test	**Paired t.Test
	Pre %		Post %		After 6months %			
	Sat.	Unsat.	Sat.	Unsat.	Sat.	Unsat.		
Sings and symptoms	26.0	74.0	100.0	0.0	62.0	38.0	11.892 & P<0.001	5.484 & P<0.001
$\bar{X}$ $\pm$ SD	0.26 $\pm$ 0.44		2.0 $\pm$ 0.0		0.62 $\pm$ 0.49			
Complications	22.0	78.0	70.0	30.0	66.0	34.0	8.278 & P<0.001	0.602 & P>0.05
$\bar{X}$ $\pm$ SD	0.22 $\pm$ 0.42		0.70 $\pm$ 0.46		0.66 $\pm$ 0.48			

\* *t*.Test between pre and post

\*\* *t*. Test between post and after six months .

Regarding mother's knowledge about sings and symptoms of gastroenteritis before, immediately and six months after the program, this table revealed that there was highly significant difference between the pre, immediate post test ( $t = 11.892$  ,  $P < 0.001$ ), also there was a significant difference between the immediate post test and after six months ( $t = 5.484$   $P < 0.001$ ). Regarding mother's knowledge about complication of gastroenteritis, it war noticed that there was a highly significant difference between pre and immediate post test ( $T = 8.278$   $P < 0.001$ ), but there was a non significant difference between immediate post test and after six months ( $t = 0.602$   $P > 0.05$ ) where (22% and 70%) of mothers had satisfactory knowledge about the complications of Gastroenteritis before and after the program respectively.

**Table (5) : Percent Distribution of Mother's Knowledge Regarding Definition and Clinical Manifestation of Dehydration Before, Immediately and Six Months The Program.**

Items	Total number of mother = 50						*Paired t.Test	**Paired t.Test
	Pre %		Post %		After 6months %			
	Sat.	Unsat.	Sat.	Unsat.	Sat.	Unsat.		
<i>Hei</i> Definitions of dehydration	34.0	66.0	90.0	10.0	62.0	38.0	9.723 & P<0.001	5.484 & P<0.001
$\bar{X}$ $\pm$ SD	0.34 $\pm$ 0.48		0.90 $\pm$ 0.30		0.62 $\pm$ 0.49			
Clinical manifestation	32.0	68.0	80.0	20.0	70.0	30.0	8.278 & P<0.001	1.684 & P>0.05
$\bar{X}$ $\pm$ SD	0.32 $\pm$ 0.47		0.80 $\pm$ 0.40		0.70 $\pm$ 0.46			

\* t. Test between pre and post

\*\* t. Test between post and after six months .

As regards definition and C/M of dehydration, this table revealed that (66% and 68%) of months were unsatisfactory knowledge before the program respectively and they were (90% and 80%) satisfactory immediately after the program. The mean score was  $0.34 \pm 0.48$ ,  $0.32 \pm 0.47$  in the pretest and it was  $0.90 \pm 0.30$ ,  $0.80 \pm 0.04$  immediately posttest. There was a highly significant difference between pre and immediately post test ( $t = 9.723, 8.278 P<0.001$ ) respectively. This table also revealed that, there was a highly significant difference between the immediate post test and after six months or regarding definition ( $t = 5.484 P<0.001$ ) but there was no significant difference between immediate post test and after six months or regarding clinical manifestation ( $t = 1.684 P>0.05$ ).

Table (6): Percentage Distribution of Mothers Knowledge Regarding Components and Value of ORS Before Components Immediately and Six Months After The Program.

Items	Total number of mother = 50						*Paired t.Test	**Paired t.Test
	Pre %		Post %		After 6 months %			
	Sat.	Unsat	Sat.	Unsat	Sat.	Unsat.		
Components of O.R.S	0.0	100.0	78.0	22.0	46.0	54.0	13.132 & P<0.001	5.387 & P>0.001
$\bar{X}$ $\pm$ SD	0.0 $\pm$ 0.0		0.78 $\pm$ 0.42		0.46 $\pm$ 0.50			
Value of ORS 1- ORS stop diarrhea	30.0	70.0	100.0	0.0	84.0	16.0	10.76 & P<0.001	3.058 & P<0.05
$\bar{X}$ $\pm$ SD	0.30 $\pm$ 0.46		1.0 $\pm$ 0.0		0.84 $\pm$ 0.37			
2- ORS replaces water and electrolyte but not stop diarrhea	14.0	86.0	100.0	0.0	90.0	10.0	17.375 & P<0.001	2.357 & P>0.05
$\bar{X}$ $\pm$ SD	0.14 $\pm$ 0.35		2.0 $\pm$ 0.0		0.90 $\pm$ 0.30			
3- ORS prevent dehydration but not diarrhea	28.0	72.0	98.0	2.0	82.0	18.0	10.999 & P<0.001	2.901 & P>0.05
$\bar{X}$ $\pm$ SD	0.28 $\pm$ 0.45		0.98 $\pm$ 0.14		0.82 $\pm$ 0.39			

\* t.Test between pre and post

\*\* t. Test between post and after six months .

As regards components of ORS this table revealed that (100%) of mothers were unsatisfactory knowledge before the program and they were (78%) satisfactory immediately after the program. The mean score was (0.0  $\pm$  0.0) in the pre test and it was (0.78  $\pm$  0.42) immediately post test.

There was a highly significant difference between pre and immediately post test ( $T=13.132$   $P<0.001$ ).

Also there was a highly significant difference between post and after six months ( $t = 5.387$ ,  $P < 0.001$ ). Regarding the value of rehydration solution, this table revealed also that (70%, 86% and 72%) of mothers were unsatisfactory knowledge before the program respectively and they were (100%, 100% and 98%) satisfactory immediately after the program. The mean score was ( $0.30 \pm 0.46$ ,  $0.14 \pm 0.35$  and  $0.28 \pm 0.45$ ) in the pre test and was ( $2.0 \pm 0.0$ ,  $1.0 \pm 0.0$  and  $0.98 \pm 0.14$ ) immediately post test there was a highly significant difference between pre and immediately post test ( $t = 10.76$   $P<0.001$ ,  $17.375$ ,  $P<0.001$  and  $10.999$ ,  $P<0.001$ ) respectively also there was a significant difference between the immediate post test and after six months ( $t = 3.058$  ,  $P<0.05$ ,  $2.357$ ,  $P<0.05$  and  $2.901$ ,  $P<0.05$ ), respectively.

Table (7): Percentage Distribution of Mothers Knowledge Regarding Feeding of Their Children, During Gastroenteritis Before, Immediately and Six Months After The Program.

Items	Total number of mother = 50						*Paired t.Test	**Paired t.Test
	Pre %		Post %		After 6months %			
	Sat.	Unsat	Sat.	Unsat	Sat.	Unsat.		
Feeding during : stop feeding	12.0	88.0	80.0	20.0	78.0	22.0	18.856 & P<0.001	3.536 & P<0.05
$\bar{X}$ $\pm$ SD	0.12 $\pm$ 0.33		0.80 $\pm$ 0.40		0.78 $\pm$ 0.42			
Continuos Breast feeding	26.0	74.0	100.0	0.0	82.0	18.0	11.892 & P<0.001	3.264 & P<0.05
$\bar{X}$ $\pm$ SD	0.26 $\pm$ 0.44		2.0 $\pm$ 0.0		0.82 $\pm$ 0.39			
Continuos and increase breast feeding	12.0	88.0	84.0	6.0	80.0	20.0	18.856 & P<0.001	3.058 & P<0.05
$\bar{X}$ $\pm$ SD	0.12 $\pm$ 0.33		84.0 $\pm$ 0.37		0.80 $\pm$ 0.40			

\* t.Test between pre and post

\*\* t. Test between post and after six months .

This table illustrated that, (88%) of mothers were unsatisfactory knowledge before the program about stop feeding and were (80%) satisfactory immediately after program and (78%) after six month. There was a highly statistical significant difference between pre and immediate post ( $t=18.856$   $P<0.001$ ). also there was a significant difference between

the immediate post and after six months from the program ( $t = 3.536$ ,  $P < 0.05$ ).

Continue breast feeding during gastroenteritis was known only by (26%) of the mothers before the program compared to (100%) in the immediate post test and (82%) after six months. There was a highly significant difference between the pre and immediate post ( $t = 11.892$ ,  $P < 0.001$ ) and also there was a significant difference between the immediate post and after six months ( $t = 3.264$ ,  $P < 0.05$ ).

Regarding continue and increase breast feeding only (12%) of the mothers were know before the program compared to (84%) in the immediate post test and (80%) after six months. There was a highly significant difference between the pre and immediate post ( $t = 18.856$ ,  $P < 0.001$ ) also there was a significant difference between the immediate post and after six months ( $t = 3.058$ ,  $P < 0.05$ ).

Table (8) : Percentage Distribution of Mothers Knowledge Regarding Important to Feed Children, Having Gastroenteritis and Important of Breast Feeding During G.E. Before, Immediately and Six Months After The Program.

Items	Total number of mother = 50						* Paired t.Test	**Paired t.Test
	Pre %		Post %		After 6months %			
	Sat.	Unsat	Sat.	Unsat	Sat.	Unsat.		
Important to feed children having G.E.	12.0	88.0	96.0	74.0	74.0	26.0	18.856 & P<0.001	4.178 & P<0.01
$\bar{X}$ $\pm$ SD	0.12 $\pm$ 0.33		0.96 $\pm$ 0.19		0.74 $\pm$ 0.44			
Important of breast feeding during G.E.	14.0	86.0	100.0	0.0	80.0	20.0	17.375 & P<0.001	3.536 & P<0.05
$\bar{X}$ $\pm$ SD	0.14 $\pm$ 0.35		2.0 $\pm$ 0.0		0.80 $\pm$ 0.40			

\* *t*.Test between pre and post

\*\* *t*. Test between post and after six months .

As regard important to feed children having gastroenteritis and important of breast feeding during G.E., this table revealed that (88% and 86%) of mothers were unsatisfactory knowledge before the program and they were (96% and 100%) satisfactory immediately after the program. The mean score was (0.12  $\pm$  0.33, 0.14  $\pm$  0.35) in the pre test it was (0.96  $\pm$  0.19, 2.0  $\pm$  0.0) immediately post test. There was a highly significant difference between pre and immediately post test ( $t = 18.856, 17.375$   $P < 0.001$ ) respectively. This table also revealed that there was a significant difference between immediate post and after six months from the program ( $t = 4.178, 3.536, P < 0.01, P < 0.05$ ) respectively.

Table (9) : Percentage Distribution of Mother's Knowledge Regarding Rehydration Before, Immediately and Six Months After The Program.

Items	Total number of mother = 50						*Paired t.Test	**Paired t.Test
	Pre %		Post %		After 6months %			
	Sat.	Unsat	Sat.	Unsat	Sat.	Unsat.		
Rate if vomiting present	16.0	84.0	90.0	10.0	74.0	26.0	14.684 & P<0.001	2.571 & P<0.05
$\bar{X}$ $\pm$ SD	0.16 $\pm$ 0.37		0.90 $\pm$ 0.30		0.74 $\pm$ 0.44			
Time of start feeding after rehydration	20.0	80.0	90.0	10.0	78.0	22.0	14.142 & P<0.001	6.932 & P<0.001
$\bar{X}$ $\pm$ SD	0.02 $\pm$ 0.40		0.40 $\pm$ 0.30		0.78 $\pm$ 0.42			
Administration of breast feeding with O.R.S	2.0	98.0	80.0	20.0	62.0	38.0	49.497 & P<0.001	5.484 & P<0.001
$\bar{X}$ $\pm$ SD	0.02 $\pm$ 0.14		0.80 $\pm$ 0.40		0.62 $\pm$ 0.49			
Administration of artificial feeding after rehydration artificialmilk diluted	4.0	96.0	90.0	10.0	60.0	40.0	34.284 & P<0.001	5.772 & P<0.001
$\bar{X}$ $\pm$ SD	0.04 $\pm$ 0.19		0.90 $\pm$ 0.30		0.60 $\pm$ 0.49			
Artificial milk reconcertrated after cure from G.E.	10.0	90.0	90.0	10.0	50.0	50.0	21.213 & P<0.001	6.932 & P<0.001
$\bar{X}$ $\pm$ SD	0.10 $\pm$ 0.30		0.90 $\pm$ 0.30		0.50 $\pm$ 0.51			

\* t.Test between pre and post

\*\* t. Test between post and after six months.

As regard rate of administer of ORS if vomiting present, time of start feeding after rehydration, administer of breast feeding with ORS and administer of artificial feeding after rehydration and after cure from gastroenteritis, this table revealed that (98%, 90%, 88%, 98%, and 90%) of mother's were unsatisfactory knowledge before the program and they were (84%, 80%, 98%, 96%, and 90%) satisfactory immediately after the program. The mean score was (0.16, 0.20 , 0.02 , 0.04 , 0.10 in ( $\pm 0.37$ ,  $\pm 0.40$ ,  $\pm 0.14$ ,  $\pm 0.19$  and  $\pm 0.30$ ). The pre test and it was ( 0.90 0.90 0.80 0.90 ( $\pm 0.30$ ,  $\pm 0.30$ ,  $\pm 0.40$ ,  $\pm 0.30$  and  $0.90 \pm 0.30$ ) immediately post test. There was a highly significant between pre and the immediate post ( $t = 14.684$ ,  $14.142$ ,  $49.497$ ,  $34.284$  and  $21.213$   $P < 0.001$ ) respectively. This table also revealed that there was a highly statistical significant difference between the immediate post and after six month except rate of administer of ORS if vomiting present the table indicated that, there was a significant difference.

Table (10). : Percentage Distribution of Mother's Knowledge Regarding Given Additional Meal Before, Immediately and Six Months After The Program .

Items	Total number of mother = 50.						*Paired t.Test	**Paired t.Test
	Pre %		Post %		After 6months %			
	Sat.	Unsat	Sat.	Unsat	Sat.	Unsat.		
Additional meal for one day	34.0	66.0	100.0	0.0	70.0	30.0	9.723 & P<0.001	4.612 & P<0.01
$\bar{X}$ $\pm$ SD	0.34 $\pm$ 0.48		1.0 $\pm$ 0.0		0.70 $\pm$ 0.46			
Additional meal daily for one week	30.0	10.0	100.0	0.0	60.0	40.0	10.760 & P<0.001	5.772 & P<0.001
$\bar{X}$ $\pm$ SD	0.30 $\pm$ 0.46		2.0 $\pm$ 0.0		0.60 $\pm$ 0.49			

\* *t*.Test between pre and post

\*\* *t*. Test between post and after six months.

In relation to given additional meal for one day or given additional meal daily for one week, this table revealed that, there was a highly significant difference between the pre and the immediate post test (t test = 9.723 P<0.001) and (10.760 P<0.001) respectively. This table also revealed that there was a significant difference between the immediate post test and after six months regarding given additional meal for one day as ( t test = 4.612 P<0.01) and there was a highly significant difference between the immediate post test and after six months regarding given additional meal daily for one week as (t test = 5.772 P<0.001).

Table (11-a) : Percentage Distribution of Mother's Knowledge Regarding Principle of Prevention of G.E. Before, Immediately and Six Months After The Program.

Items	Total number of mother = 50						*Paired t.Test	**Paired t.Test
	Pre %		Post %		After 6months %			
	Sat.	Unsat	Sat.	Unsat	Sat.	Unsat.		
Washing hands before and after feeding	20.0	80.0	90.0	10.0	68.0	32.0	14.142 & P<0.001	4.814 & P<0.01
$\bar{X}$ $\pm$ SD	0.20 $\pm$ 0.40		0.90 $\pm$ 0.30		0.68 $\pm$ 0.47			
Keeping food clean	14.0	86.0	94.0	6.0	70.0	30.0	17.375 & P<0.001	4.612 & P<0.01
$\bar{X}$ $\pm$ SD	0.14 $\pm$ 0.35		0.94 $\pm$ 0.18		0.70 $\pm$ 0.46			
Continue breast feeding	32.0	68.0	90.0	10.0	80.0	20.0	10.230 & P<0.001	3.536 & P<0.05
$\bar{X}$ $\pm$ SD	0.32 $\pm$ 0.47		0.90 $\pm$ 0.30		0.80 $\pm$ 0.40			
Don't use polluted water.Using boiling for formula	20.0	80.0	98.0	2.0	90.0	10.0	14.142 & P<0.001	2.357 & P<0.05
$\bar{X}$ $\pm$ SD	0.20 $\pm$ 0.40		0.98 $\pm$ 0.14		0.90 $\pm$ 0.30			

\* t. Test between pre and post

\*\* t. Test between post and after six months.

This table revealed that, there was a highly significant difference between pre test and immediately post test regarding mothers knowledge about prevention of gastroenteritis, while there was a noticed drop for the mothers knowledge after six months, the table indicted that there was a significant difference.

Table (11-b) : Percentage Distribution of Mother's Knowledge Regarding Other Principle of Prevention of G.E. Before, Immediately and Six months After The Program.

Items	Total number of mother = 50						*Paired t.Test	**Paired t.Test
	Pre %		Post %		After 6months %			
	Sat.	Unsat	Sat.	Unsat	Sat.	Unsat.		
Use of teat	30.0	70.0	80.0	20.0	60.0	40.0	10.76	5.772
$\bar{X}$ $\pm$ SD	0.30 $\pm$ 0.46		0.80 $\pm$ 0.40		0.60 $\pm$ 0.49		& P<0.001	& P<0.001
Give feed and drink by Glass and spoon	36.0	64.0	78.0	22.0	50.0	50.0	4.428 & P<0.001	6.932 & P<0.001
$\bar{X}$ $\pm$ SD	0.36 $\pm$ 0.48		0.78 $\pm$ 0.42		0.50 $\pm$ 0.51			
Regular visits to health center	20.0	80.0	90.0	10.0	50.0	50.0	14.142 & P<0.001	6.932 & P<0.001
$\bar{X}$ $\pm$ SD	0.20 $\pm$ 0.40		0.90 $\pm$ 0.30		0.50 $\pm$ 0.51			

\* *t*.Test between pre and post

\*\* *t*. Test between post and after six months.

As regard use of teat, give food and drink by glass and spoon and regular visits to health center, this table revealed that (70%, 64% and 80%) of mothers were unsatisfactory knowledge before the program and they were (80%, 78% and 90%) satisfactory immediately after the program. The mean score was  $0.30 \pm 0.46$ ,  $0.36 \pm 0.48$  and  $0.20 \pm 0.40$  in the pre test and it was  $0.80 \pm 0.40$ ,  $0.78 \pm 0.42$  and  $0.90 \pm 0.30$  immediately post test. There was a highly significant difference between pre and immediately post test  $t = 10.76$ ,  $9.428$  and  $14.142$   $P < 0.001$ ) respectively. This table also revealed that there was a highly significant difference between the immediate post test and after six months  $t = 5.772$ ,  $6.932$  and  $6.932$   $P < 0.001$ ) respectively.

Table (12) : Percentage Distribution of Mother's Knowledge Regarding, Seeking Medical Help and Type of Food Given During G.E to Prevent Malnutrition.

Items	Total number of mother = 50						* Paired t.Test	**Paired t.Test
	Pre %		Post %		After 6months %			
	Sat.	Unsat	Sat.	Unsat	Sat.	Unsat.		
Seeking medical help	26.0	74.0	80.0	20.0	50.0	50.0	11.892 & P<0.001	6.932 & P<0.01
$\bar{X}$ ± SD	0.26 ±0.44		0.80 ±0.40		0.50 ±0.51			
Type of food given during G.E. to prevent malnutrition	14.0	86.0	76.0	24.0	68.0	32.0	10.195 & P<0.001	1.204 & P>0.05
$\bar{X}$ ± SD	0.14 ±0.35		0.76 ±0.43		0.68 ±0.47			

\* t. Test between pre and post

\*\* t. Test between post and after six months.

In relation to seeking medical help and type of food give during G.E to prevent malnutrition, this table revealed that, (74% and 86%) of mothers were unsatisfactory knowledge before the program and they were (80% and 76%) satisfactory immediately after the program respectively mean score was (0.26± 0.44 and 0.14 ± 0.35) in the pre test and it was (0.80 ± 0.40 and 0.76 ± 0.43) immediately post test. There was a highly significant difference between pre and immediately post test (t = 11.892 and 10.195 P<0.001) respectively. This table also revealed that, there was a highly significant difference between the immediate post test and after six months as regard seeking medical help (t = 6.932 P<0.001) but regarding food given during G.E. to prevent malnutrition there was a non significant difference.

Table (13): Percentage Distribution of Total Mother's Knowledge Regarding Their Children Suffering From Gastroenteritis and Dehydration Before, Immediately and Six Months After The Program.

Knowledge	Total Number of Mothers = 50 (100%)			* Paired t.test	** Paired t.test
	Pre%	Post%	After6 months%		
Satisfactory	70	96	70	9	4.3
Unsatisfactory	93	41	30		
$\bar{X}$ $\pm$ SD	28.5 $\pm$ 12.8	73 $\pm$ 9.8	60.5 $\pm$ 22.8	P<0.001	P<0.05

\* t. Test between pre and post

\*\* t. Test between post and after six months.

Regarding total mother's knowledge about their children suffered from gastroenteritis and dehydration this table showed that there was a very highly significant difference between mother's knowledge in the pre and immediate post test (T test: 9 P<.001), while there was a significant difference between the immediate post test and after six months (T test: 4.3 P<0.05).

Table (14) : Percentage Distribution of Mothers Practice Regarding Baby Bath and Hand Washing Technique Before, Immediately and Six Months After The Program.

Items	Total number of mother = 50						* Paired t.Test	**Paired t.Test
	Pre %		Post %		After 6months %			
	Sat.	Unsat	Sat.	Unsat	Sat.	Unsat.		
Baby bath	22.0	78.0	80.0	20.0	40.0	60.0	6.921	4.041
$\bar{X}$ $\pm$ SD	0.22 $\pm$ 0.42		0.80 $\pm$ 0.47		0.40 $\pm$ 0.49		& P<0.001	& P<0.01
Hand washing technique	20.0	80.0	90.0	10.0	50.0	50.0	9.765	4.159
$\bar{X}$ $\pm$ SD	0.20 $\pm$ 0.42		0.90 $\pm$ 0.30		0.50 $\pm$ 0.51		& P<0.001	& P<0.01

\* t. Test between pre and post

\*\* t. Test between post and after six months.

As regard baby bath and hand washing technique, this table revealed that, (78% and 80%) of mothers were unsatisfactory practice before the program and they were (80% and 90%) satisfactory immediately after the program. The mean score was (0.22  $\pm$  0.42, 0.20  $\pm$  0.42) in the pre test and it was (0.80  $\pm$  0.47, 0.90  $\pm$  0.30) immediately post test. There was a highly significant difference between pre and immediately post test (t = 6.921, 9.765 P<0.001) respectively. Also this table revealed that, there was a significant difference between the immediate post and after six months t = (4.041, 4.159 P<0.01) respectively.

Table (15) : Percentage Distribution of Mother's Practice Regarding Breast and Bottle Care Technique Before, Immediately and Six Months After The Program.

Items	Total number of mother = 50						* Paired t.Test	**Paired t.Test
	Pre %		Post %		After 6months %			
	Sat.	Unsat	Sat.	Unsat	Sat.	Unsat.		
Breast care technique	24.0	76.0	80.0	20.0	50.0	50.0	9.209 & P<0.001	4.159 & P<0.01
$\bar{X}$ ±SD	0.24 ±0.43		0.80 ±0.40		0.50 ±0.51			
Bottle care	10.0	90.0	84.0	16.0	70.0	30.0	10.285 & P<0.001	2.020 & P<0.05
$\bar{X}$ ±SD	0.10 ±0.30		0.84 ±0.44		0.70 ±0.46			

\* *t*. Test between pre and post

\*\* *t*. Test between post and after six months.

As regard breast and bottle care, this table illustrated that the minority of mothers (24% and 10%) had satisfactory practice before the program compared to (89% and 84%) in the immediate post and (50% and 70%) after six months respectively. There was a highly significant difference between pre and the immediate post test ( $t = 9.209$  and  $10.285$   $P < 0.001$ ) respectively. Also there was a significant difference between the immediate post and after six months ( $t = 4.159$  and  $2.020$   $P < 0.01$  and  $< 0.05$ ) respectively.

Table (16): Percentage Distribution of Mothers Practice Regarding Diaper Care Before Immediately and Six Months After The Program.

Items	Total number of mother = 50						* Paired t.Test	**Paired t.Test
	Pre %		Post %		After 6months %			
	Sat.	Unsat	Sat.	Unsat	Sat.	Unsat.		
Diaper care	20.0	80.0	90.0	10.0	56.0	44.0	12.374	4.808
$\bar{X}$	0.20		0.90		0.56		&	&
$\pm$ SD	$\pm$ 0.40		$\pm$ 0.30		$\pm$ 0.50		P<0.001	P<0.01

\* t. Test between pre and post

\*\* t. Test between post and after six months.

This table revealed that, the minority of mothers (20%) had a satisfactory practice before the program compared to (90% and 56%) in the immediate post and after six months respectively. There was a highly significant difference between pre and the immediate post test.  $t = 12.374$   $P < 0.001$  and also there was a significant difference between the immediate post and after six months ( $t = 4.808$   $P < 0.01$ ).

Table (17): Percentage Distribution of Mother's Practice Regarding ORS Preparation And Rate of Administration of ORS Before, Immediately And Six Months After The Program.

Items	Total number of mother = 50						* Paired t.Test	** Paired t.Test
	Pre %		Post %		After 6months %			
	Sat.	Unsat	Sat.	Unsat	Sat.	Unsat.		
ORS preparation	22.0	78.0	86.0	14.0	78.0	22.0	10.775	1.347
$\bar{X}$ $\pm$ SD	0.22 $\pm$ 0.42		0.86 $\pm$ 0.35		0.78 $\pm$ 0.42		& P<0.001	& P>0.05
Rate of admin- istration of O.R.S	4.0	96.0	88.0	12.0	74.0	26.0	17.999	2.249
$\bar{X}$ $\pm$ SD	0.04 $\pm$ 0.19		0.88 $\pm$ 0.33		0.74 $\pm$ 0.44		& P<0.001	& P<0.05

\* *t*. Test between pre and post

\*\* *t*. Test between post and after six months.

In relation to ORS preparation and Rate of administration of ORS, this table revealed that (78% and 96%) of mothers were unsatisfactory practice before the program and they were (86% and 88%) immediately after the program. The mean score was (0.22  $\pm$ 0.42 and 0.04  $\pm$ 0.19) in the pre test and it was 0.86  $\pm$ 0.35 and 0.88  $\pm$ 0.33 immediately post test. There was a highly significant difference between pre and immediately post test ( $t = 10.775$  and  $17.999$   $P < 0.001$ ) respectively. This table also revealed there was a non significant difference between the immediate post and after six months as regarding ORS preparation ( $t = 1.347$   $P > 0.05$ ). However there was a significant difference between the immediate post and after six months as regarding rate of administration of ORS ( $t = 2.249$   $P < 0.05$ ).

Table (18) : Percentage Distribution of Total Mother's Practice About Care of Their Children Suffering From Gastroenteritis and Dehydration Before, Immediately and Six Months After The Program .

Practice	Total Number of Mothers = 50			* Paired t. test	** Paired t. test
	Pre %	Post%	After 6 months %		
Satisfactory $\bar{X} \pm SD$	4 (29 ± 11.46)	90 (71 ± 13.67)	70 (66 ± 15.43)	8.3 P < 0.001	2.2 P < 0.05
Unsatisfactory $\bar{X} \pm SD$	96 (25 ± 9.44)	10 (66 ± 12.71)	30 (59 ± 16.47)		
Total $\bar{X}$ ± SD	27 9.8	70 15.1	60 21.1		

Regarding total mother's practice about care of their children suffering from gastroenteritis and dehydration this table illustrated that, there was a very highly significant difference between pre and the immediate post test (T test: 8.3 P<0.001), on the other hand there was a significant difference between the immediate post test and after six months (T test: 2.2P <0.05)

## IV : FOURTH PART

Table (19) : Relationship Between Child's Sex And Their Mother's Knowledge Before And After The Program.

Knowledge	Total No.=26		Total No.=24		t.test	P
	Male		Female			
	Sat.%	Unsat.%	Sat.%	Unsat.%		
Pre	23.5	76.5	18.4	81.6	0.302	>0.05
$\bar{X}$	36.75		35.5			
$\pm SD$	21.3		20.4			
Post	94.1	5.9	93.9	6.1	1.735	<0.05
$\bar{X}$	47.7		57.8			
$\pm SD$	24.9		32.8			

This table concerned with mother's knowledge in relation to the child's sex, there was insignificant difference (T test: 0.302  $P > 0.05$ ) between mothers knowledge and their child sex before the program. After the program the result indicated a significant difference (T test: 1.735  $P < 0.05$ ) while 94.1% of mothers scored as satisfactory knowledge had a male child and 93.9% of them scored as satisfactory knowledge had a female child.

**Table (20): Relationship Between Child's Sex And Mother's Practice Before And After The Program.**

Knowledge	Total No.=26		Total No.=24		t.test	P
	Male		Female			
	Sat.%	Unsat.%	Sat.%	Unsat.%		
Pre	15.4	84.6	16.3	83.7	1.41	>0.05
$\bar{X}$	32.8		40.2			
$\pm$ SD	18.2		32.2			
Post	93.8	6.2	92.1	7.9	6.858	<0.001
$\bar{X}$	71.9		45.1			
$\pm$ SD	12.11		24.7			

There was insignificant difference (T test: 1.41  $P>0.05$ ) between mothers practice and their child's sex before the program. After the program, this table revealed a highly significant difference (T test: 6.858  $P<0.001$ ) while 92.1% of mothers had a satisfactory practice have a female child and 93.8% of them had a satisfactory practice have a male child.

**Table (21): Relationship Between Mother's Age And Their Knowledge Before And After The Program.**

Knowledge	Total No=6				Total No=30				Total No=14			
	20-years				25-years				30-35-years			
	Pre		Post		Pre		Post		Pre		Post	
	No	%	No	%	No	%	No	%	No	%	No	%
Satisfactory	2	16.6	8	66.7	15	25.0	57	95.0	6	21.4	26	93.0
Unsatisfactory	10	83.4	4	33.3	45	75.0	3	5.0	22	78.6	2	7.0
Total	12	100.0	12	100.0	60	100.0	60	100.0	28	100.0	28	100.0

$$X^2 = 68.816$$

$$P < 0.001$$

This table showed a positive relation between mother's age and their knowledge before and after the program, it was noticed that mothers whose age (25-35years) had a satisfactory knowledge than the youngest whose age (20-25 years). Also, the table show a highly significant differences. ( $X^2 = 68.816$ ) ( $P < 0.001$ ).

**Table (22): Relationship Between Mother's Age And Their Practice Before And After The Program.**

Practice	Total No=6				Total No=30				Total No=14			
	20-years				25-years				30-35-years			
	Pre		Post		Pre		Post		Pre		Post	
	No	%	No	%	No	%	No	%	No	%	No	%
<b>Satisfactory</b>	2	16.6	9	75.0	14	23.3	58	96.7	6	21.4	25	89.3
<b>Unsatisfactory</b>	10	83.4	3	25.0	46	76.7	2	3.3	22	78.6	3	10.7
<b>Total</b>	12	100.0	12	100.0	60	100.0	60	100.0	28	100.0	28	100.0

$$X^2 = 76.081$$

$$P < 0.001$$

This table showed a positive relation between mother's age and their practice before and after the program, it was noticed that mothers whose age (25-35 years) had a satisfactory practice than the youngest whose age (20-25 years). Also, the table show a highly significant differences ( $X^2 = 76.081$ ) ( $P < 0.001$ ).

**Table (23): Relationship Between Mother's Knowledge And Child's Ranking Before And After The Program.**

Knowledge	Total No=30				Total No=15				Total No=4				Total No=1			
	1 <sup>st</sup> Child				2 <sup>nd</sup> Child				3 <sup>rd</sup> Child				4 <sup>th</sup> Child			
	Pre		Post		Pre		Post		Pre		Post		Pre		Post	
	No	%	No	%												
Satisfactory	5	9.3	58	96.7	9	30.0	28	93.3	2	25.0	7	86.5	0	0.0	1	50.0
Unsatisfactory	55	91.7	2	3.3	21	70.0	2	6.7	6	75.0	1	12.5	2	100.0	1	50.0
Total	60	100.0	60	100.0	30	100.0	30	100.0	8	100.0	8	100.0	2	100.0	2	100.0

$$X^2 = 120.532$$

$$P < 0.001$$

This table illustrated that, the highest response of satisfactory knowledge (96.7%) after the program was among mothers whose children ranked as a first child, while the lowest response (50.0 %) found in mothers whose children ranked as a fourth child. Also, this table reflected a highly significant differences ( $X^2 = 120.532$ ) ( $P > 0.001$ ).

Table (24): Relationship Between Mother's Practice And Child's Ranking Before And After The Program.

Practice	Total No=30				Total No=15				Total No=4				Total No=1			
	1 <sup>st</sup> Child				2 <sup>nd</sup> Child				3 <sup>rd</sup> Child				4 <sup>th</sup> Child			
	Pre		Post		Pre		Post		Pre		Post		Pre		Post	
	No	%	No	%												
Satisfactory	4	6.7	56	93.3	7	23.3	27	90.0	1	12.5	6	75.0	0	0.0	1	50.0
Unsatisfactory	56	93.3	4	6.7	23	76.7	3	10.0	7	87.5	2	25.0	2	100.0	1	50.0
Total	60	100.0	60	100.0	30	100.0	30	100.0	8	100.0	8	100.0	2	100.0	2	100.0

$$X^2 = 117.744$$

$$P < 0.001$$

This table illustrated that, the highest response of satisfactory practice (93.3% and 90.0 %) after the program were found among the mothers whose children ranked as first and second child respectively, while the lowest response (75.0 % and 50.0%), were among mothers whose children ranked as third and fourth child respectively. Also, this table reflected a highly significant differences ( $X^2 = 117.744$ ) ( $P < 0.001$ ).

Table (25): Relationship Between Mother's Knowledge And Their Education Before And After The Program.

Knowledge	Total No=30				Total No=5				Total No=15			
	Illiterate				Read & Write				High Education			
	Pre		Post		Pre		Post		Pre		Post	
	No	%	No	%	No	%	No	%	No	%	No	%
Satisfactory	9	15.0	40	66.7	2	20.0	9	90.0	8	26.7	28	93.3
Unsatisfactory	51	85.0	20	33.3	8	80.0	1	10.0	22	73.3	2	6.7
Total	60	100.0	60	100.0	10	100.0	10	100.0	30	100.0	30	100.0

$$X^2 = 44.110$$

$$P < 0.001$$

It is clear from this table that the highly education mothers had a highest level of knowledge before and after the program (26.7 % and 93.3%) respectively than the mother's who are illiterate and can read and write. Also, this table show a highly significant differences ( $X^2 = 44.110$ ) ( $P < 0.001$ ).

Table (26): Relationship Between Mother's Practice And Their Education Before And After The Program.

Practice	Total No=30				Total No=5				Total No=15			
	Illiterate				Read & Write				High Education			
	Pre		Post		Pre		Post		Pre		Post	
	No	%	No	%	No	%	No	%	No	%	No	%
Satisfactory	0	0.0	50	83.3	2	20.0	9	90.0	7	23.3	29	93.7
Unsatisfactory	60	100.0	10	16.7	8	80.0	1	10.0	23	76.7	1	3.3
Total	60	100.0	60	100.0	10	100.0	10	100.0	30	100.0	30	100.0

$$X^2 = 95.938$$

$$P < 0.001$$

It is clear from this table that, the highly education mothers had a highest level of practice before and after the program (23.3 % and 96.7%) respectively, than the mother's who are illiterate and can read and write. Also, this table illustrated a highly significant differences ( $X^2 = 95.938$ ) ( $P < 0.001$ ).