RESULTS

Classified into six parts:

I-First part related to sociodemographic data (tables 1,2,3)

II-Second part deal with the mother's knowledge score before and after the application of health promotion (tables 4-12).

III- The third part deal with the mothers' practical score before and after the application of health promotion (tables 13-16).

IV- The Fourth part

Relationship between mother's education and their knowledge and practice before and after the program tables (tables 17-19).

Relationship between mother's employment and their knowledge and practice before and after the program tables (tables 19-21).

Relationship between family income and mother's knowledge and practice before and after the program tables (tables 21-23).

Relationship between family size and mother's knowledge and practice before and after the program tables (tables 23-25).

Relationship between crowding index (person / room) and mother's knowledge and practice before and after the program tables (tables 25-27).

V- The five part description of home environment as regard care of child (table 29)

VI- The six part correlation between mother's knowledge about child care and their practices (table 30).

Part I: Characteristics of participants

Table (1): Sociodemographic characteristics of participant mothers (n=100)

Variable	%
Age	
<20	9.0
20-	53.0
30-	31.0
40-	7.0
Education	
Illiterate	23.0
Read and write	16.0
Primary/Preparatory	10.0
Secondary	40.0
University	11.0
Employment	
Unemployed (housewife)	69.0
Employed	31.0
Marital status	
Married	97.0
Divorced	2.0
Widow	1.0
No. of children	
<3	16.0
3-	46.0
5+	38.0

Table (1) shows that more than half of participant mothers (53%) aged 20-29 years. As regard education, less than one-fourth (23%) were illiterate, two fifths (40%) had secondary education and more than one-tenth (11%) were university graduates. Less than one third mothers (31%) were employed. Most participant mothers were married (97%),. As regard number of children, more than one-third of the families (38%) had 1-2 children, less than half (46%) had 2-4 children while less than one-fifth (16%) had 5 children or more.

Table (2): Characteristics of children (n=100)

Variable	%
Age of child	
<6 months	20.0
6-11 months	40.0
12-17 months	31.0
18-24 months	9.0
Type of feeding during the first 6 months of life	
Exclusive breastfeeding	55.0
Bottle feeding only	0.0
Mixed(1)	45.0
Time for starting bottle feeding	
<3 months	21.0
3-	24.0
6-	5.0
Never started	50.0
The child is given the bottle for(2)	
Artificial milk	26.0
Cow milk	19.0
Warm fluids	42.0

(1) Mixed feeding indicates breastfeeding + bottle feeding

(2) Options are not mutually exclusive

Table (2) shows that two fifths of children (40%) aged 6-11 months. Breastfeeding was the main type for feeding of more than one half of children during the first 6 months of life (55%). Time for starting bottle feeding was during the first 3 months of life in more than one fifth (21%). However, half of mothers (50%) never started their bottle feeding. As regard usage of bottle for children, more than one fourth (26%) of children received artificial milk, less than one fifth (19%) received cow milk, while more than two fifths (42%) received warm fluids.

Table (3): Characteristics of family study sample (n=100)

Variable	%
Monthly Income (LE)	
<200	15.0
200-	32.0
400-	37.0
600+	16.0
Family size	
3-	16.0
5-	49.0
7+	35.0
Number of rooms	
1-	40.0
3-	44.0
5+	16.0
Crowding index	
<1	33.0
1-	35.0
2-	16.0
3+	16.0

Table (3) shows that less than one third (32%) earn 200-399 LE, less than one-sixth (15%) of families earn less than 200 LE monthly. More than one third (35%) of the families had 7 members or more, less than half (49%) had 5-6 members, more than two fifths (44%) had 3-4 rooms, more than one-third of mothers (35%) had 1- persons/room, one third (33%) had less than one person/room, while one-sixth had 2- persons/room or 3 or more persons/room.

Part II: Knowledge of mothers regarding child care

Table (4): Mean knowledge scores of mothers about child growth and development within the first two years of life before and after the application of health promotion program (n=100)

Knowledge items	Before program Mean±SD	After program Mean±SD	t Value	P Value
Meaning of growth	.28±0.45	0.86±0.35	11.692	<0.001
Meaning of development	.13±0.34	0.93±0.26	19.900	<0.001
Factors affecting growth and development	.41±0.49	0.91±0.29	9.950	<0.001
Importance of growth monitoring	.55±0.50	0.92±0.27	7.625	<0.001
Startling reaction	.28±0.45	0.88±0.33	12.186	<0.001
Closing eyes when exposed to direct light	.13±0.34	0.90±0.30	18.205	<0.001
Sitting unsupported	.57±0.50	0.89±0.31	6.826	<0.001
Crawls	.64±0.48	0.87±0.34	5.438	<0.001
Stands up alone	.53±0.50	0.90±0.30	7.625	<0.001
Walks with help	.56±0.50	0.91±0.29	7.301	<0.001
Responds to calling name	.66±0.48	0.86±0.35	4.975	<0.001
Pronounces the words 'papa'; 'mamma	.42±0.50	0.87±0.34	9.000	<0.001
Eruption of the first tooth	.55±0.50	0.91±0.29	7.462	<0.001
Number of deciduous teeth	.24±0.43	0.89±0.31	13.559	<0.001

Table (4) shows that prior to the application of the program, the highest scores were obtained for 'responds to calling name', 'crawls', 'sitting unsupported' and 'walks with help' being 0.66±0.48, 0.64±0.48, 0.57±0.50 and 0.56±0.50, respectively. After the application of the program, the highest scores were obtained for 'meaning of development', 'importance of growth monitoring', 'factors affecting growth and development', 'walks with help', 'eruption of the first tooth', being 0.93±0.26, 0.92±0.27, 0.91±0.29, 0.91±0.29 and 0.91±0.29, respectively). Scores of mothers' knowledge about growth and development improved significantly after the application of the program in all items ($p<0.001$).

Table (5): Mean knowledge scores of mothers about breast and bottle feeding before and after the application of health promotion program (n=100)

Knowledge items	Before program Mean±SD	After program Mean±SD	t Value	P value
- Breast feeding:				
Importance of breast feeding	0.47±0.50	0.92±0.27	8.657	<0.001
Initiation of breast feeding	0.70±0.46	0.90±0.30	4.690	<0.001
Frequency of breast feedings per day	0.97±0.17	0.98±0.14	0.575	0.566
Duration of breast suckling	0.26±0.44	0.95±0.22	14.196	<0.001
Technique of milk expression	0.28±0.45	0.86±0.35	11.692	<0.001
- Bottle feeding:				
Amount of prepared milk in bottle feeding	0.28±0.45	0.89±0.31	12.444	<0.001
Sterilization of bottle	0.32±0.47	0.92±0.27	12.186	<0.001
Storage of prepared bottle milk	0.14±0.35	0.91±0.29	180.205	<0.001

Table (5) shows that prior to the application of the program, the highest scores were obtained for 'frequency of breast feedings per day' and 'initiation of breast feeding' being 0.97±0.17 and 0.70±0.46, respectively. After the application of the program, the highest scores were obtained for 'frequency of breast feedings per day' and 'duration of breast suckling' being 0.98±0.14 and 0.95±0.22, respectively. After the application of health promotion program, scores of mothers' knowledge about breastfeeding improved significantly ($p<0.001$), (except those for frequency of breast feedings per day). Moreover, mothers' knowledge scores about bottle feeding improved significantly after its application ($p<0.001$ for amount of milk prepared in bottle feeding, sterilization of bottle and storage of prepared bottle milk).

Table (6): Mean mothers' knowledge scores about child's weaning within the first two years before and after the application of health promotion program (n=100)

Knowledge items	Before program Mean±SD	After program Mean±SD	t value	P value
Meaning of weaning	0.10±0.30	0.93±0.26	21.985	<0.001
Timing of initiation of weaning	0.29±0.46	0.90±0.30	12.444	<0.001
Weaning schedule	18.08±5.37	42.08±2.84	86.168	<0.001
Proper age for complete weaning	0.31±0.47	0.92±0.27	12.444	<0.001
Best timing for complete weaning	0.30±0.46	0.91±0.29	12.444	<0.001
Proper method for complete weaning	0.35±0.48	0.89±0.31	10.371	<0.001

Table (6) shows that prior to the application of the program, mothers' knowledge about all items of weaning were inadequate. However, scores of mothers' knowledge improved significantly after the application of the program ($p<0.001$ for meaning of weaning, timing of initiation of weaning, proper age for complete weaning, best timing for complete weaning and proper method for weaning). As regard weaning schedule, mean scores were 18.08±5.37 before the application of the health promotion program, while after the application of the program, the score improved significantly (42.08±2.84, $p<0.001$).

Table (7): Mean knowledge scores of mothers about vaccination and hygiene of their children during the first two years of life before and after the application of health promotion program (n=100)

Knowledge items	Before program Mean±SD	After program Mean±SD	t Value	P value
Vaccination:				
- Importance of vaccination	0.61 ±0.49	0.93 ±0.26	6.826	<0.001
- Immunization schedule	6.70 ±2.16	11.40 ±2.10	51.960	<0.001
- Vaccines side effects	0.51 ±0.50	0.86 ±0.35	7.301	<0.001
- Mother's intervention in case of side effects	0.44 ±0.50	0.84 ±0.37	8.124	<0.001
Hygiene:				
- For children:				
Importance of stump care	0.54±0.50	0.88±0.33	6.843	<0.001
Frequency of child's bathing	0.14±0.35	0.93±0.26	19.298	<0.001
Indications of changing diapers	0.37±0.49	0.83±0.38	8.835	<0.001
Indications of changing child's clothes	0.24±0.43	0.85±0.36	12.444	<0.001
- For mothers:				
Importance of breast care before breast feeding	0.28±0.45	0.93±0.26	13.559	<0.001

Table (7) shows that prior to the application of the program, mothers' knowledge about all items of vaccination and hygiene were inadequate (except importance of stump care). However, after the application of the health promotion program, the mean scores significantly improved ($p<0.001$).

Table (8): Mean score of mothers' knowledge about 'play', 'sleep' and 'toilet training' for children during the first two years of life before and after the application of health promotion program (n=100)

Knowledge items	Before	After	t Value	P Value
	Mean ± SD	Mean± SD		
• Playing:				
Importance of playing	0.53 ± 0.50	0.98 ± 0.14	9.000	<0.001
Characters of safe toys	0.64 ± 0.48	0.92 ± 0.27	4.91	<0.001
Importance of sharing play with the child	0.25 ± 0.44	0.83 ± 0.38	9.85	<0.001
• Sleep:				
Importance of sleep	0.39 ± 0.49	0.97 ± 0.17	11.692	<0.001
Preparation for sleep	0.15 ± 0.36	0.91 ± 0.29	16.035	<0.001
• Toilet training:				
Importance of toilet training	0.47± 0.50	0.92± 0.27	8.657	<0.001
Signals of readiness for toilet training	0.31± 0.47	0.92± 0.27	12.444	<0.001

Table (8) shows that prior to application of the health promotion program the knowledge items as regard playing, sleep and toilet training were inadequate. However, after the application of the health promotion program, mean scores for all knowledge items improved significantly ($p<0.001$).

Table (9): Mean score of mothers' knowledge about common health problems of children during the first two years of life before and after the application of health promotion program (n=100)

Knowledge items	Before	After	t Value	P Value
	Mean ± SD	Mean ± SD		
Diarrhea:				
Meaning of diarrhea	0.42± 0.50	0.98± 0.14	10.795	<0.001
Causes for diarrhea	0.49± 0.50	0.96± 0.20	8.411	<0.001
Mother's intervention for diarrhea	0.38± 0.49	0.90± 0.30	8.289	<0.001
Upper respiratory tract infection (URI):				
Symptoms of URI	0.48± 0.50	0.91± 0.29	7.081	<0.001
Predisposing factors for URI	0.46± 0.50	0.90± 0.30	7.438	<0.001
Mother's intervention for URI	0.47± 0.50	0.82± 0.39	5.594	<0.001
Colic:				
Meaning of colic	0.77± 0.42	0.90± 0.30	2.389	<0.05
Causes for colic	0.48± 0.50	0.77± 0.42	4.421	<0.001
Mother's intervention for colic	0.49± 0.50	0.88± 0.33	6.676	<0.001
Sleep problems:				
Causes for sleep problems	0.42± 0.50	0.87± 0.34	7.595	<0.001
Mother's intervention for sleep problems	0.40± 0.49	0.81± 0.39	6.601	<0.001

Table (9) shows that prior to the application of the health promotion program, knowledge items about diarrhea (especially knowledge about intervention for diarrhea), URI (especially knowledge about predisposing factors for URI), colic (especially causes for colic) and sleep problems (especially mothers' intervention for sleep problems) were inadequate. However, after the application of health promotion program, the mean scores for all knowledge items significantly improved.

Table (10): Mean score of mothers' knowledge about accidents and its control before and after the application of health promotion program (n=100)

Knowledge items	Before		After		t Value	p Value
	Mean±	SD	Mean±	SD		
Types of accidents	0.35±	0.48	0.88±	0.33	10.166	<0.001
Mothers intervention for control of accidents:						
• Electric shock	0.35±	0.48	0.88±	0.33	9.192	<0.001
• Gas poisoning	0.37±	0.49	0.82±	0.39	7.386	<0.001
• Drowning	0.29±	0.46	0.79±	0.41	7.587	<0.001
• Burns	0.35±	0.48	0.89±	0.31	9.376	<0.001
• Falls from height	0.26±	0.44	0.92±	0.27	12.314	<0.001
• Corrosive poisoning	0.10±	0.30	0.94±	0.24	22.798	<0.001

Table (10) shows that prior to the application of the health promotion program, knowledge scores about accidents and its control were inadequate, especially those for mother's intervention for corrosive poisoning (0.10±0.30) and mother's intervention for falls from height (0.26±0.44). however, after the application of the health promotion program, mean scores for all knowledge items about accidents significant improved (p<0.001).

Table (11): Mean total knowledge scores of mothers about child care within the first two years of life before and after the program (n=100)

Before program / After program	Total knowledge scores Mean±SD
Before program	47.25±9.85
After program	103.70±6.54
t-value	82.467
p-value	<0.001

Table (11) shows that before the application of health promotion program, mean total knowledge score of mothers about child care within the first two years of life was inadequate (47.25±9.85). However, after the application of the health promotion program, the mean total knowledge score of mothers improved significantly (103.70±6.54, $p<0.001$).

Part III- Practice of mothers for care of their children

Table (12): Mean practice scores of mothers about techniques of breastfeeding, bottle feeding and preparation of food for their children within the first two years of life before and after application of health promotion program (n=100)

Practice techniques	Before Program Mean ± SD	After Program Mean ± SD	t value	P Value
Breast feeding	4.76 ± 1.17	7.41 ± 0.85	21.060	<0.001
Bottle feeding*	3.61 ± 1.15	6.77 ± 1.76	8.459	<0.001
Preparation of food	1.92 ± 0.84	3.60 ± 0.62	15.812	<0.001

** Total score for bottle feeding was calculated for 45 practicing mothers*

Table (12) shows that prior to the application of the health promotion program, practice scores of mothers about techniques of breast feeding, bottle feeding and preparation of food for their children within the first two years of life were inadequate (4.76±1.17, 3.61±1.15 and 1.92±0.84, respectively). However, after application of the health promotion program, mean practice scores improved significantly ($p<0.001$ for all items).

Table (13): Mean practice scores of mothers about of stump care and bathing of their children within the first two years of life before and after application of health promotion program (n=100)

Practice items	Before Program Mean ± SD	After Program Mean ± SD	t value	p value
Stump care	2.93± 1.37	6.50± 1.17	21.361	<0.001
Bathing	10.87± 2.16	19.76± 2.00	41.341	<0.001

Table (13) shows that prior to the application of the health promotion program, practice scores of mothers about stump care and bathing were inadequate (2.93±1.37 and 10.87±2.16, respectively). However, after application of the health promotion program, mean practice scores improved significantly ($p<0.001$ for both items).

Table (14): Mean practice scores of mothers about diaper care, dressing and immunization of their children within the first two years of life before and after application of health promotion program (n=100)

Practice Items	Before Program Mean ± SD	After Program Mean ± SD	t value	P value
Diaper care	4.18± 1.06	7.56± .70	29.777	<0.001
Dressing	2.78± 1.46	3.82± .46	7.320	<0.001
Immunization	1.87± 0.34	1.96± 0.20	3.129	0.002

Table (14) shows that prior to the application of the health promotion program, practice scores of mothers about diaper care and dressing were inadequate (4.18±1.06 and 2.78±1.46, respectively). Practice scores for immunization were better (1.87±0.34). However, after the application of the health promotion program, mean practice scores improved significantly for all items.

Table (15): Mean practice scores of mothers about safety measures against accidents for their children within the first two years of life before and after application of health promotion program (n=100)

Safety items	Before program Mean±SD	After Program Mean±SD	t value	P value
Keeping toxic material at a high and closed place	0.81±0.39	0.93±0.26	2.514	.014
Choosing washable toys	0.20±0.40	0.84±0.37	-11.430	<0.001
Choosing inseparable toys	0.30±0.46	0.90±0.30	-11.282	<0.001
Choosing non-sharp toys	0.65±0.48	0.90±0.30	-4.347	<0.001
Keep sharp instruments away	0.26±0.44	0.80±0.40	-10.005	<0.001
Securely close the bathroom	0.60±0.49	0.98±0.14	-7.479	<0.001
Keep the child away from stoves	0.65±0.48	0.81±0.39	2.473	.015
Keep the hot objects away	0.12±0.33	0.88±0.33	-16.035	<0.001
Continuously closes the home door	0.32±0.47	0.90±0.30	-10.145	<0.001
Keep plastic bag away	0.55±0.50	0.82±0.39	-4.496	<0.001
Covering the child's food	0.65±0.48	0.96±0.20	-5.894	<0.001
Keep small objects away	0.60±0.49	0.82±0.39	-3.498	.001
Keeping the floor clear from small objects	0.67±0.47	0.90±0.30	-4.347	<0.001
Keeping the house clean	0.54±0.50	0.81±0.39	-4.771	<0.001
Having first aid material available at home	0.27±0.45	0.95±0.22	-13.331	<0.001
Keeps the phone number(s) of emergency medical service	0.11±0.31	0.81±0.39	-13.404	<0.001
Total	7.48±1.86	14.01±1.91	25.745	<0.001

Table (15) shows that prior to the application of the health promotion program, practice scores of mothers about safety measures against accidents for their children within the first two years of life were mostly inadequate in all items, except for 'keeping toxic material at a high and closed place' and 'keeping the floor clear from small objects', being 0.81±0.39, and 0.67±0.47, respectively. However, after the application of the health promotion program, mean practice scores improved significantly for all items.

Table (16): Mean total practice scores of mothers for care of their children within the first two years of life before and after application of health promotion program (n=100)

Before program / After program	Total practice scores Mean±SD
• Before program	37.47±4.97
• After program	63.62±3.77
t-value	47.561
p-value	<0.001

** Total score for bottle feeding was not included in the calculation of total practice score*

Table (16) shows that prior to the application of the health promotion program, mean total practice score of mothers for care of their children within the first two years of life were inadequate (37.47±4.97). However, after the application of the health promotion program, the mean total practice scores improved significantly (63.62±3.77, $p<0.001$).

Part IV- Mothers' knowledge and practice scores according to sociodemographic characteristics

Table (17): Mean total knowledge scores of mothers about child care within the first two years of life before and after application of health promotion program according to their age (n=100)

	Total knowledge scores	
Mother's age (in years)	Before program Mean±SD	After program Mean±SD
<20	43.89±11.31	99.22±9.36
20-	47.89±10.28	104.55±5.69
30-	47.23±9.06	103.45±6.03
40-	46.86±9.17	104.14±9.49
F-value	.419	1.767
p-value	>0.05	>0.05

Table (17) shows that mean total knowledge scores of mothers before and after the application of the program were not significantly distributed according to their age.

Table (18): Mean total practice scores of mothers about child care within the first two years of life before and after application of health promotion program according to their age (n=100)

	Total practice sores	
Mother's age (in years)	Before program Mean±SD	After program Mean±SD
<20	36.89±6.05	63.44±3.71
20-	38.17±4.26	63.98±3.05
30-	36.06±5.37	63.23±4.83
40-	39.14±6.26	62.86±4.10
F-value	1.506	0.369
p-value	>0.05	>0.05

Table (18) shows that mean total practice scores of mothers before and after the application of the program were not significantly distributed according to their age.

Table (19): Mean total knowledge scores of mothers about child care within the first two years of life before and after application of health promotion program according to their education (n=100)

Educational level	Total knowledge scores	
	Before program Mean±SD	After program Mean±SD
Illiterate	34.87±4.90	97.61±4.28
Read and write	39.25±3.84	99.63±5.35
Primary/preparatory	49.60±3.84	103.30±6.67
Secondary	54.13±4.83	106.95±4.44
University	57.64±3.72	110.91±3.48
F-value	94.485	23.669
p-value	<0.001	<0.001

Table (19) shows that mean total knowledge scores of mothers before and after the application of the program were significantly distributed according to their educational level ($p<0.001$ for both). The higher levels of education (e.g., university and secondary) were associated with higher knowledge scores, while lower levels of education (e.g., illiterate and read and write) were associated with lower knowledge scores.

Table (20): Mean total practice scores of mothers about child care within the first two years of life before and after application of health promotion program according to their education (n=100)

Educational level	Total practice scores	
	Before program Mean±SD	After program Mean±SD
Illiterate	36.61±4.30	61.96±4.89
Read and write	34.88±4.90	61.38±3.93
Primary/preparatory	35.80±7.02	64.50±1.84
Secondary	38.03±3.72	64.68±2.65
University	42.55±4.95	65.73±2.87
F-value	5.339	5.006
p-value	<0.001	<0.001

Table (20) shows that mean total practice scores of mothers before and after the application of the program were significantly distributed according to their educational level ($p<0.001$ for both). The higher levels of education (e.g., university and secondary) were associated with higher practice scores, while lower levels of education (e.g., illiterate and read and write) were associated with lower practice scores.

Table (21): Mean total knowledge scores of mothers about child care within the first two years of life before and after application of health promotion program according to their employment status (n=100)

Employment status	Total knowledge scores	
	Before program Mean±SD	After program Mean±SD
Housewife	44.52±9.31	102.48±5.90
Employed	53.32±8.28	106.42±7.16
t-value	4.517	2.888
p-value	<0.001	<0.01

Table (21) shows that mean total knowledge scores of mothers before and after the application of the program were significantly distributed according to their employment status ($p<0.001$ for before program and $p<0.01$ after program). Employed mothers had higher knowledge scores than housewives (unemployed mothers).

Table (22): Mean total practice scores of mothers about child care within the first two years of life before and after application of health promotion program according to their employment status (n=100)

Employment status	Total practice scores	
	Before program Mean±SD	After program Mean±SD
Housewife	36.75±4.84	62.99±4.05
Employed	39.06±4.96	65.03±2.60
t-value	2.193	2.579
p-value	<0.05	<0.05

Table (22) shows that mean total practice scores of mothers before and after the application of the program were significantly distributed according to their employment status ($p<0.05$ for both). Employed mothers had higher practice scores than housewives (unemployed mothers) (39.06±4.69 vs. 36.75±4.84 before the program and 65.03±2.60 vs. 62.99±4.05 after the program, respectively).

Table (23): Mean total knowledge scores of mothers about child care within the first two years of life before and after application of health promotion program according to their family income (n=100)

Monthly income (LE)	Total knowledge scores	
	Before program Mean±SD	After program Mean±SD
<200	32.00±2.54	95.33±2.89
200-	46.06±7.87	102.28±5.76
400-	50.14±6.14	105.51±4.99
600+	57.25±7.33	110.19±4.37
F-value	41.746	26.253
p-value	<0.001	<0.001

Table (23) shows that mean total knowledge scores of mothers before and after the application of the program were significantly distributed according to their family income ($p<0.001$ for both). Higher family incomes were associated with higher knowledge scores, while lower incomes were associated with lower knowledge scores.

Table (24): Mean total practice scores of mothers about child care within the first two years of life before and after application of health promotion program according to their family income (n=100)

Monthly income (LE)	Total practice scores	
	Before program Mean±SD	After program Mean±SD
<200	35.07±4.08	61.40±5.72
200-	36.53±4.93	63.03±3.93
400-	37.46±4.66	64.65±2.25
600+	41.63±4.33	64.50±3.20
F-value	6.099	3.433
p-value	<0.001	<0.05

Table (24) shows that mean total practice scores of mothers before and after the application of the program were significantly distributed according to their family income ($p<0.001$ for before program and $p<0.05$ for after program). Higher family incomes were associated with higher practice scores, while lower incomes were associated with lower practice scores.

Table (25): Mean total knowledge scores of mothers about child care within the first two years of life before and after application of health promotion program according to family size (n=100)

Family size	Total knowledge scores	
	Before program Mean±SD	After program Mean±SD
3-	45.38±10.78	101.25±7.65
5-	48.37±10.10	104.76±6.57
7+	46.54±9.13	103.34±5.78
F-value	0.690	1.842
p-value	>0.05	>0.05

Table (25) shows that mean knowledge scores of mothers before and after the application of the program were not significantly distributed according to their family size.

Table (26): Mean total practice scores of mothers about child care within the first two years of life before and after application of health promotion program according to family size (n=100)

Family size	Total practice scores	
	Before program Mean±SD	After program Mean±SD
3-	37.88±4.94	64.06±3.19
5-	38.43±4.97	63.98±3.34
7+	35.94±4.74	62.91±4.51
F-value	2.710	0.944
p-value	>0.05	>0.05

Table (26) shows that mean total practice scores of mothers before and after the application of the program were not significantly distributed according to their family size.

Table (27): Mean total knowledge scores of mothers about child care within the first two years of life before and after application of health promotion program according to their crowding index (persons/room) (n=100)

Crowding index	Total knowledge scores	
	Before program Mean±SD	After program Mean±SD
<1	50.58±8.20	105.36±6.87
1-	47.20±10.60	104.09±6.31
2-	48.69±7.99	103.81±6.02
3+	39.06±9.00	99.31±5.31
F-value	5.780	3.380
p-value	<0.001	<0.05

Table (27) shows that mean total knowledge scores of mothers before and after the application of the program were significantly distributed according to their crowding index (persons/room) ($p<0.001$ before program and $p<0.05$ after program). Higher mean total knowledge scores were associated with lower crowding index, while lower knowledge scores were associated with higher crowding index.

Table (28): Mean total practice scores of mothers about child care within the first two years of life before and after application of health promotion program according to their crowding index (persons/room) (n=100)

Crowding index	Total practice scores	
	Before program Mean±SD	After program Mean±SD
<1	37.64±4.86	64.67±2.80
1-	37.97±4.93	63.54±3.23
2-	53.31±5.85	62.88±3.70
3+	38.19±4.48	62.38±5.93
F-value	1.258	1.673
p-value	>0.05	>0.05

Table (28) shows that mean total practice scores of mothers before and after the application of the program were not significantly distributed according to their crowding index (persons/room).

Part V- Home environment

Table (29): Description of home environment as regard care of child (n=100)

Home Environment	Good		Moderate		Poor	
	No.	%	No.	%	No.	%
Housing condition	10	10.0	26	26.0	64	64.0
Ventilation	62	62.0	19	19.0	19	19.0
Illumination	31	31.0	41	41.0	28	28.0
Water sources	91	91.0	9	9.0	0	0.0
Sewage disposal	0	0.0	74	74.0	26	26.0
Refuse collection	6	6.0	44	44.0	50	50.0
Kitchen	46	46.0	29	29.0	25	25.0
Accident potentials & hazards						
- Electricity	34	34.0	13	13.0	53	53.0
- Drug storage	33	33.0	23	23.0	44	44.0
- Fire sources	13	13.0	43	43.0	44	44.0
- Windows	10	10.0	42	42.0	48	48.0

Table (29) shows that housing condition of the study sample was mostly poor in less than two thirds of the houses (64%), with relatively good ventilation in less than two thirds of the houses (62%), illumination was moderate in more than two fifths of the houses (41%) water resources were good in most houses (91%) while sewage disposal was moderate in less than three fourths of houses (74%). Refuse collection was either mainly poor in half of the houses (50%) and the kitchen was in a good condition in more than two fifths of houses (46%), Accident potentials and hazards were mainly poor as regard electricity in more than half of houses (53%), drug storage in more than two fifths of the houses (44%), fire sources in more than two firths of houses (44%) and windows in less than half of houses (48%).

Table (30): Correlation between total mothers' knowledge scores and their total practice scores about child care within the first two years of life before and after the program (n=100)

Total Practice Scores	Total Knowledge Scores			
	Before Program		After Program	
	r	p-value	r	p-value
Before program	0.338	<0.001	0.337	<0.001
After program	0.404	<0.001	0.363	<0.001

Table (30) shows that mothers' knowledge and practice scores about child care within the first two years of life significantly and positively correlated both before and after the application of the program ($p<0.001$, for all correlations).