RESULTS

The first group included sixty mother-infant pairs who continued breastfeeding into the second year (group I), the second group included sixty mother-infant pairs who did not breastfeed into the second year irrespective of the breastfeeding status in the first year (group II).

The two main studied groups of mother-infant pairs were compared and analyzed in the following manner:

Group I consisted of 35 (58.3%) male and 25(41.7%) female infants, Group 2 consisted of 30 (50%) male and 30 (50%) female infants.

Table 1: shows the distribution of women who breastfed less than 12 months compared to those who continued to breastfed into the second year as regards socio-demographic characters. There was a statistically significant difference between both groups in relation to parity, education of mother and education of husband. Mothers who discontinued to breastfeed before the second year were more likely to be primiparous, lower educational status and married to husbands who were of low educational status ($P<0.05$).

Table 2: shows the difference between both groups as regards breastfeeding practices. There were statistically highly significant differences between both groups ($P<0.001$) in relation to:

- Exclusive breastfeeding in the first week.
- Use of nipple in the first week.
- Exclusive breastfeeding in the 1st 3 months and 1st 6 months.

- Use of bottles and pacifiers < 6 months.
- Milk/ drink < 4 months.

Table 3-a: shows the difference between both groups as regards family and social network factors. There were statistically significant differences between both groups as regards:

- Type of family (at P<0.001)
- Husband support with housework and child care (at p<0.05).
- Marital relation (at P< 0.05).

Table 3-b : Shows the difference between both groups as regards the appearance of affective trait disorders in their mothers. There was statistically significant differences between both groups as regards the anxiety trait of mother which was more prevalent in mothers who discontinued breastfeeding in the first year of infant's life (p<0.001).

Table 4: Shows the relationship between education status of husband and the marital relation, assistance with housework and children, psychological status of mother, and presence of behavior disorder in the infant. The higher educational status of the husband was associated with less violence and more assistance with housework and child care, and better psychological status of the mother and child. The difference was statistically highly significant (p<0.001).

Table 5: shows the relationship between occupation of the husband and the marital relation, assistance with housework and children, psychological status of mother, and presence of behavior disorders in the infant. Husbands who were professionals were more likely to have a good marital skills, demonstrate less violence with mother, be supportive with

child care and have children with a stable psychological status. The difference was statistically highly significant for all items except for the psychological status of mothers ($p<0.001$).

Table 6: shows the distribution of infants who breastfed less than 12 months compared to those who continued to breastfed into the second year as regards their growth.

Table 7: shows the relationship between father's support in infant care and housework and the mother-infant interaction. This relationship was statistically highly significant at ($p < 0.001$).

Table 8: shows the relationship between the maternal interaction with infants and the developmental milestones. There were statistically highly significant relationships between mother-infant interaction and the developmental milestones of infants included: personal/social, fine motor, gross motor and language at ($P <0.001$)

Table 9: shows the effect of maternal interaction with infant on the type of behavior disorders. The effect was statistically highly significant at ($p< 0.001$)

Table 10: shows the effect of the psychological status of mother on the growth and nutritional status of infant. We found that the effect of maternal anxiety on the body mass index (BMI) was statistically insignificant for group I (breastfeeding mothers), but it was statistically significant for the non-breastfeeding group at $P< 0.05$ for anxiety only not depression.

Figure (1): shows the effect of breast feeding continuation on the development of the infant. There was statistically significant effect of breastfeeding continuation on the development of the infant as regards, personal-social and language at ($P < 0.05$).

Figure (2): shows the effect of breastfeeding continuation on the occurrence of behavioral disorders. This effect was statistically significant at ($p<0.05$).

Figure (3): shows the effect of breast feeding continuation on the body mass index (BMI) of the infants.

Figure (4): shows the relationship between breastfeeding continuation and the number of diarrhoeal episodes. This relationship was statistically highly significant at ($P < 0.001$).

Figure (5): shows the relationship between breastfeeding continuation and the number of respiratory episodes. Also this relationship was statistically highly significant at ($P<0.001$).

Figures (6) and (8): show the effect of maternal depression and anxiety respectively on the development of the infant. This effect was statistically significant except on the gross-motor development at ($P<0.05$).

Figures (7) and (9): show the effect of maternal depression and anxiety respectively on the behavioral disorders. This effect was statistically highly significant at ($P<0.001$)

Figure (10): shows the relationship between female circumcision and abortion, also, between female circumcision and the psychological status of the mother. These relationships were statistically highly significant ($p < 0.001$) except with the depression status of the mother ($P>0.05$).

Figures (11) and (12): show the effect of paternal and maternal education respectively on the behavior of the infant. This effect is statistically highly significant at ($P<0.001$).

Table (1) Distribution of women who breastfed less than 12months, compared to those who continued to breastfed into the second year as regards socio-demographic characters.

Socio-demographic Character	GI		G II		Chi-square	P
	No.	%	No.	%		
1-Age 20-35	54	90	46	76.7	4.1	0.12
> 35	2	33	3	5		
<20	4	6.7	11	18.3		
2-Residance→urban	37	61.7	36	6	0.03	0.85
→rural	23	38.3	24	40		
3-Parity → primi	24	40	4	70	10.9	0.0001
→ multi	36	60	18	30		
4-Education of mother					18.9	0.0002
High	16	26.7	5	8.3		
Secondary	33	55	22	36.7		
Primary	7	11.7	21	35		
Illiterate	4	6.7	12	20		
5-Occupation of mother					0.53	0.41
Working	32	53.3	28	46.7		
Not working	28	46.7	32	53.3		
6-Education of husband					8.9	0.02
High	22	36.7	10	16.7		
Secondary	27	45	27	45		
Primary	9	15	17	28.3		
Illiterate	2	3.3	6	10		
7-Occupation of husband					7.1	0.12
Professional	22	36.7	10	16.7		
Civil servant	10	16.7	16	26.7		
Manual worker	11	18.3	12	20		
Driver	8	13.3	13	21.7		
Salesman	9	15	9	15		

Table (2) Breastfeeding practices of women who breastfeed less than 12months compared to these who continued to breastfeed into the second year.

Breast feeding practices	GI		G II		Chi-square	P
	No.	%	No.	%		
1-Exclusive breast-feeding in the first week.	41	68	26	43.3	7.6	0.005
No Exclusive breast-feeding in the first week.	19	31.7	34	56.7		
2-use of nipple in the 1st week	20	33.3	34	56.7	19.17	0.0001
No nipple in the 1st week	40	66.7	41	68.3		
3-Exclusive B.F. in the 1st year	24	40	25	41.7	12.4	0.001
1st 3months →	22	36.7	7	11,7		
1st 6months →						
4- bottles < 6 months	7	11.7	35	58.3	28.7	0.000
No bottles < 6 months	53	88.3	25	41.7		
5-pacifier < 6 months	12	20	37	61.7	21.5	0.0002
No pacifier < 6 months	48	80	23	38.3		
6-Milk/drink < 4 months	20	33.3	41	68.3	14.7	0.0001
No milk/drink < 4 months	40	66.7	19	31.7		
7-Complementary food						
< 3 months →	5	8.3	12	20		
> 4 months →	25	86.7	44	73.3	3.6	0.15
> 6 months →	3	5	4	6.7		

Table (3-a) Distribution of women who breastfed less than 12months compared to those who breastfed >12months as regards family and social net work factors.

Family and social net work factors.	G I		G II		Chi-square	P
	No.	%	No.	%		
1-Type of family						
nuelear →	42	70	22	36.7	13.39	0.0001
extended →	18	30	38	63.3		
2-Husband supportive with housework →	22	36.7	11	18	5.02	0.024
No husband support with housework →	38	63.3	49	81.7		
3-Husband supportive with child care →	24	40	7	11.7	12.5	0.0001
No husband support with child care →	36	60	60	88.3		
4-Husband away →	6	10	8	13.3	0.32	0.56
5-Marital relation						
Poor →	14	23.3	25	41.7	10.8	0.004
Good →	26	43.3	29	48.3		
Very good →	20	33.3	6	10		
6-Husband violence						
With wife →	-	-	11	18.3	12.1	0.002
With children →	5	8.3	4	6.7		
No violence →	55	91.7	45	75		

Table (3-b) : comparison o f the appearance of affective trait disorder in mothers who breastfed >12 month (GI) and those who discontinued breastfeeding (GII).

Affective trait	GI		G II		Chi-square	P
	No.	%	No.	%		
1- Depression	13	56.52	10	43.48	0.7	0.38
2-Anxiety	4	16	21	84	12.5	0.0001

Table (4) Relationship between education status of husband and the marital relation, violence, assistance with housework and child care, psychological states of mother, and presence of behavior disorder in the infant.

	High		Secondary		Primary		Illiterate		Chi-square	P
	No	%	No	%	No	%	No	%		
-Good marital status	29	90	36	66.7	12	46.2	4	50	28.61	0.0001
-Violence	2	6.2	7	13	10	38.5	1	12.5	13.20	0.03
-Husband supportive with housework	20	6.2	7	18.5	2	7.7	1	12.5	27.86	0.0001
-Husband supportive with child care	16	50	14	25.9	-	-	1	12.5	19.55	0.0002
-Behavior disorder of infant	7	21.9	35	64.8	24	96	6	85.7	48.43	0.0001
-Anxiety of mother	2	6.3	10	18.5	10	38.5	3	37.5	10.54	0.0002
-Depression of mother	3	9.4	8	14.8	11	42.3	1	12.5	11.85	0.007

Table (5) Relationship between husband occupation and the marital relation, violence, assistance with housework and children, psychological states of mother, and presence of behavior disorder in the infant.

	Professio-nal		Civil servant		Manual worker		Driver		Salesman		Chi-square	P
	No	%	No	%	No	%	No	%	No	%		
-Good marital status	29	90	17	65.4	11	47.8	14	66.6	10	55.6	26.97	0.0001
-Violence	2	6.2	4	15.4	8	34.8	2	9.6	4	22.3	13.8	0.08
-Husband supportive with housework	20	6.2	6	23.1	2	8.7	2	9.5	3	16.7	28.45	0.0002
-Husband supportive with child care	16	50	5	19.2	1	4.3	6	28.6	3	16.7	16.75	0.002
-Behavior disorder of infant	7	21.9	18	69.2	20	95.2	15	71.4	12	66.7	65.7	0.0001
-Anxiety of mother	2	6.3	7	26.9	6	26.1	7	33.3	3	16.7	7.27	0.12
-Depression of mother	3	9.4	6	23.1	6	26.1	4	19	4	22.2	3.05	0.45

Table (6) Distribution of infants who breastfed less than 12 months compared to those who continued to breastfed into the second year as regards nutritional status.

Growth indices	G I		G II		T	P	Age (months)	No. of children
	Mean	S.D	Mean	S.D				
Length	82.21	1.08	82.66	1.37	1.13	0.26	18	37
Weight	11.50	0.40	11.55	0.65	0.34	0.73		
Length	82.33	1.32	82.66	1.03	0.52	0.61	19	15
Weight	11.88	0.54	11.58	0.49	1.10	0.29		
Length	82.16	1.16	82.66	1.22	0.79	0.44	20	15
Weight	12.16	0.51	11.77	0.83	1.01	0.32		
Length	83.20	1.64	83.50	1.37	0.33	0.74	21	21
Weight	12.10	0.96	12.33	0.60	0.49	0.63		
Length	83.73	1.79	83.42	1.39	0.40	0.69	22	17
Weight	12.43	0.84	13.14	1.02	1.72	0.10		
Length	80.20	0.83	83.83	1.16	5.80	0.000	23	9
Weight	11.40	0.41	12.66	0.68	3.60	0.006		
Length	86.00	-	83.37	2.26	1.09	0.31	24	6
Weight	14.50	-	13.37	1.33	0.80	0.45		

Table (7) Correlation of father's support in infant care and house work to the maternal interaction with infant.

MIS	1 - 2		3 - 4		5 - 6		Chi-square	p.
	No	%	No	%	No	%		
Husband support in child care	1	2.8	7	14.9	23	62.2	38.41	0.0001
Husband support in house work	1	12.8	6	12.8	26	70.3	50.10	0.0002
Husband violence	18	50	2	4.3	-	-	42.37	0.0001
No violence	18	50	45	95.7	37	100		

Table (8) Correlation of maternal interaction with infant to the development milestones.

MIS / D.milestones	1 - 2 Mean	3 - 4 Mean	5 - 6 Mean	F ratio	F Prob. (sign.)
Personal-social	46.11	59.14	77.83	51.29	0.0001
Gross motor	65.27	68.08	75.67	6.09	0.003
Fine motor	52.77	65.42	73.64	26.64	0.0002
Language	50.69	57.44	83.10	55.40	0.0001

Table (9) Effect of maternal interaction with infant on the type of behavior disorders

MIS / Behavior	1 - 2		3 - 4		5 – 6		Chi-Square	p.
	No.	%	No.	%	No.	%		
No disorders	1	2.9	10	21.3	35	94.6	113.17	0.0001
Head banging	7	20.6	1	2.1	-	-		
Pica	3	8.8	12	25.5	1	2.7		
Extreme attachment	1	2.9	5	10.6	1	2.7		
Thumb sucking	1	2.9	11	23.4	-	-		
Temper tantrums	8	17.6	3	6.4	-	-		
Titubation	6	17.6	3	6.4	-	-		
Sleep disorders	7	20.6	3	6.4	-	-		

Table (10) Effect of psychological status of mother on the growth and nutritional status of infant.

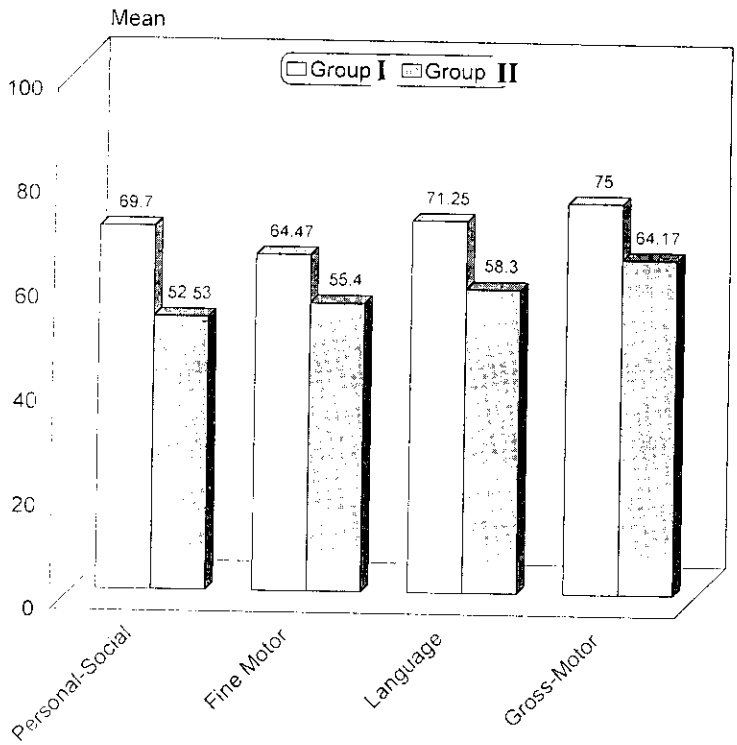
Affective trait / Growth indices	GI with anxiety		GI without anxiety		T. value	p.
	Mean	S.D	Mean	S.D		
Length	83.50	0.7	82.55	1.69	0.78	0.43
Weight	12.25	1.06	11.93	0.79	0.54	0.58
BMI	17.70	1.13	17.59	0.87	0.17	0.86

Affective trait / Growth indices	GII with anxiety		GII without anxiety		T. value	p.
	Mean	S.D	Mean	S.D		
Length	83.04	1.43	83.05	1.49	0.03	0.97
Weight	11.82	0.90	12.44	1.07	2.30	0.02
BMI	17.26	0.88	18.15	1.61	2.43	0.01

Affective trait / Growth indices	GI with depression		GI without depression		T. value	p.
	Mean	S.D	Mean	S.D		
Length	82.33	1.63	82.66	1.70	0.66	0.51
Weight	11.96	0.97	11.94	0.73	0.09	0.92
BMI	17.70	1.16	17.56	0.76	0.55	0.58

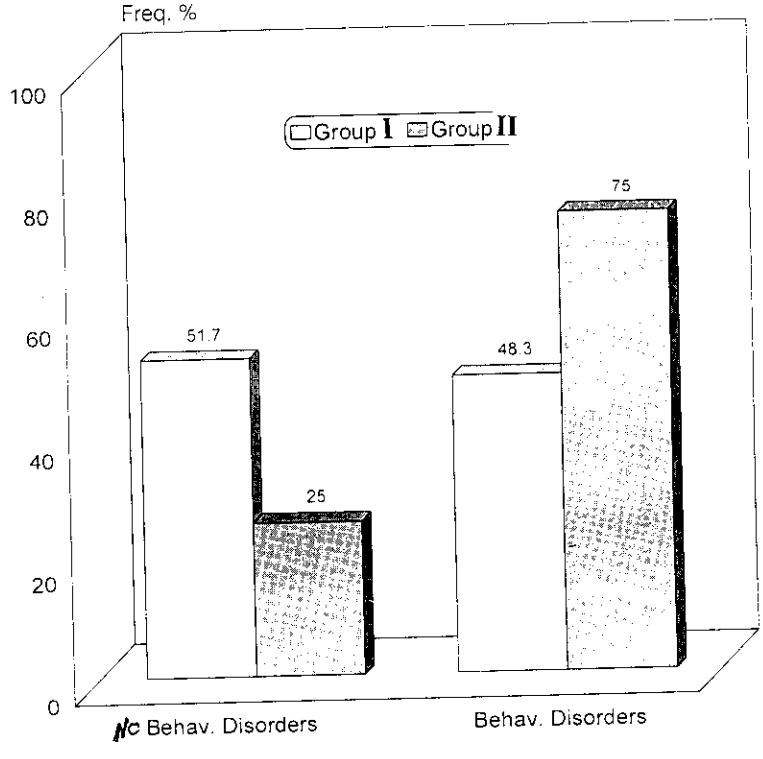
Affective trait / Growth indices	GII with depression		GII without depression		T. value	p.
	Mean	S.D	Mean	S.D		
Length	82.62	1.50	83.11	1.45	0.89	0.37
Weight	11.62	0.64	12.29	1.07	1.71	0.09
BMI	17.03	0.59	17.93	1.49	1.66	0.10

Fig (1) Effect of Breast feeding Continuation on the Development of the Infant



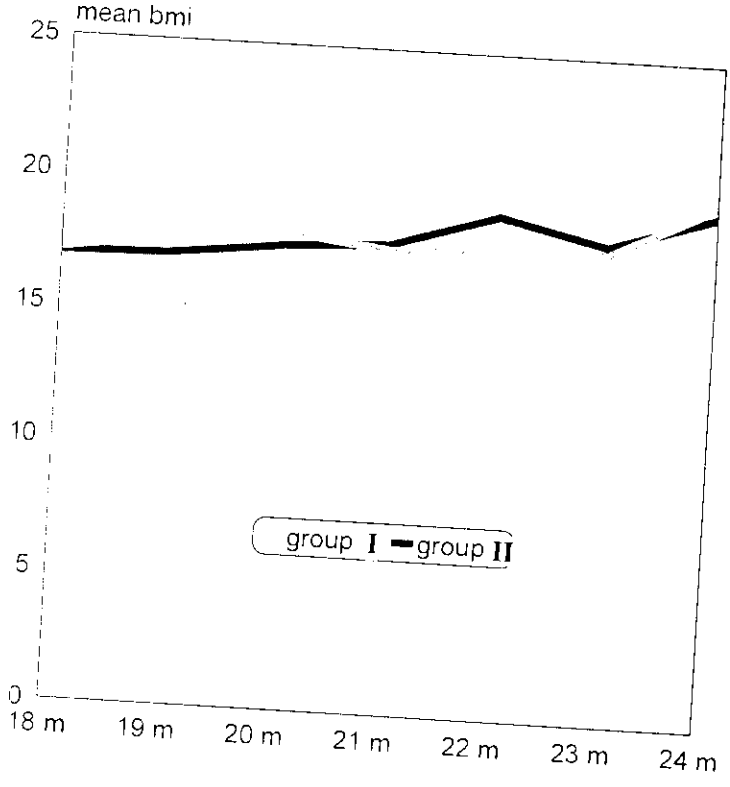
Personal – social at P<0.05
Fine motor at P >0.05
Language at P < 0.05
Gross motor at P > 0.05

Fig (2) Effect of Breast feeding Continuation on the Occurrence of Behavioural Disorders



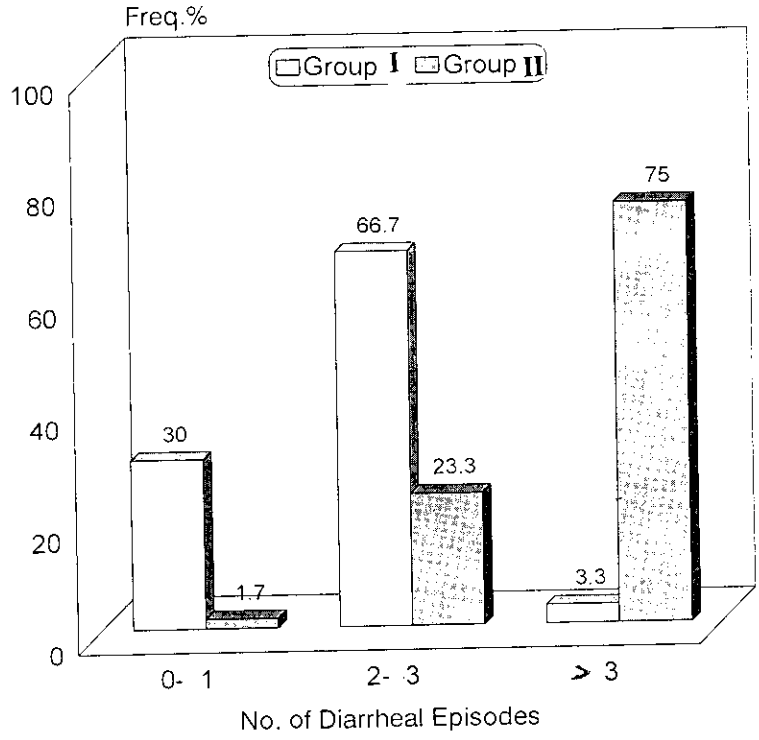
$P < 0.05$

Fig. (3) Effect of Continuation of breast feeding on the Body Mass Index of the Infants



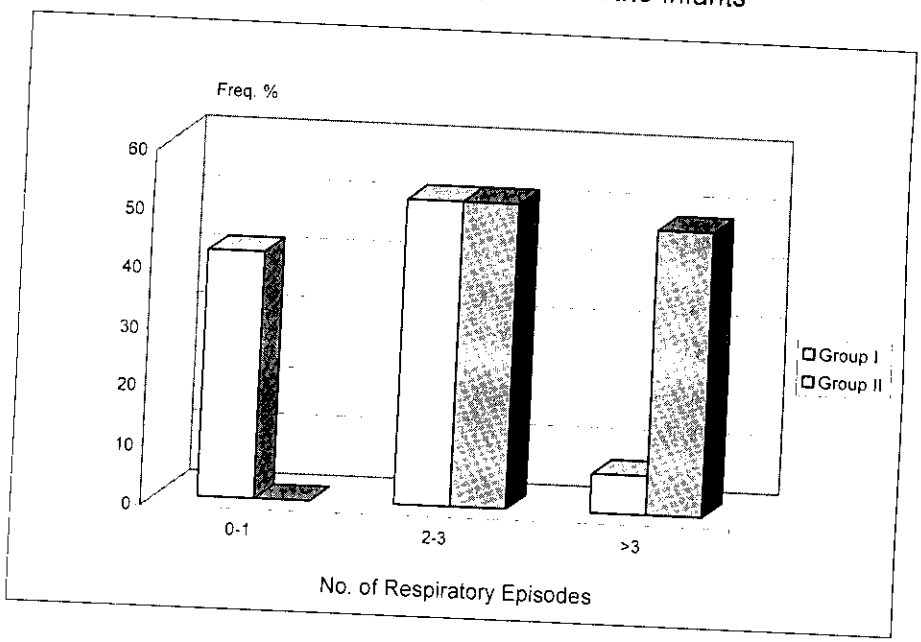
$P > 0.05$

Fig. (4-) Relationship between Breast feeding Continuation and Number of Diarrheal Episodes in the Infants



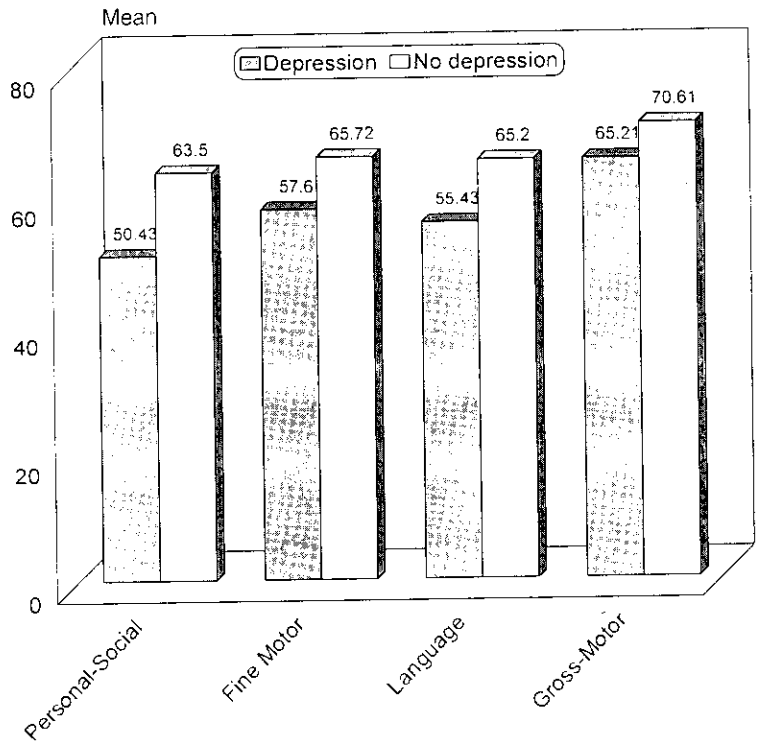
$P < 0.001$

Fig. (5) : Relationship between Breast feeding Continuation and Number of Respiratory Episodes in the Infants



$P < 0.001$

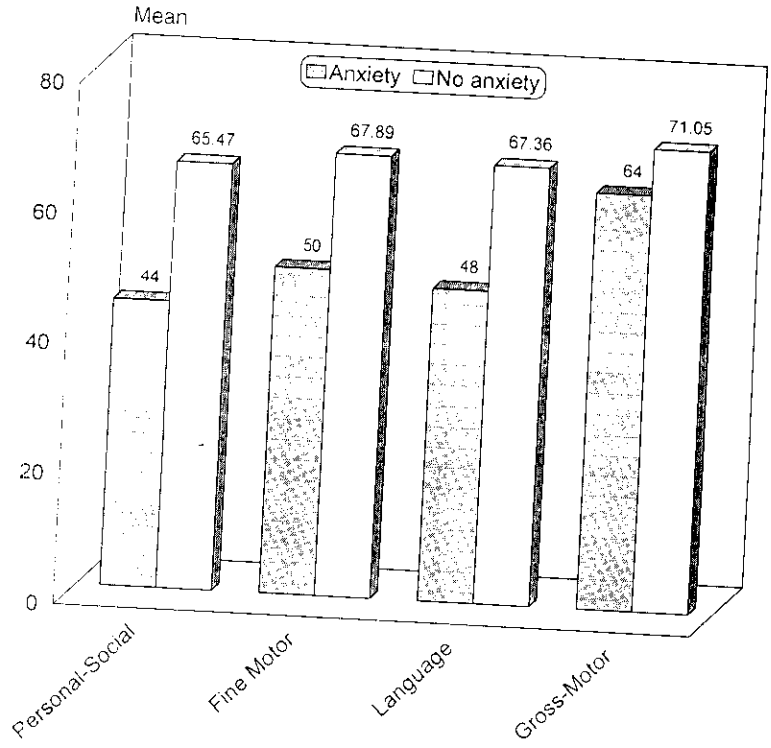
Fig. (6) Effect of Depression on the Development of the Infant



Personal – social
Fine motor
Language
} at $P < 0.05$

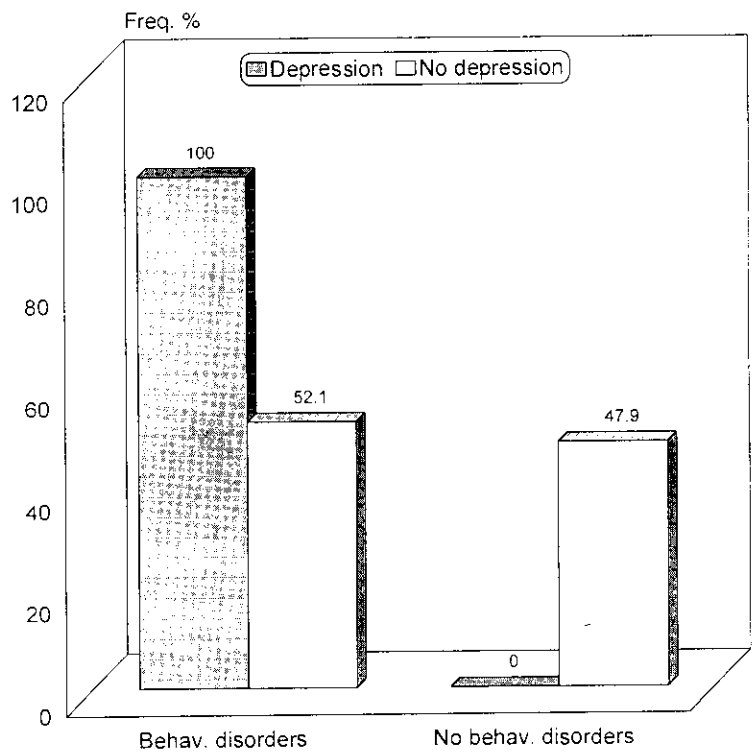
Gross motor at $p > 0.05$

Fig. (7) Effect of Anxiety on the Development of the Infant



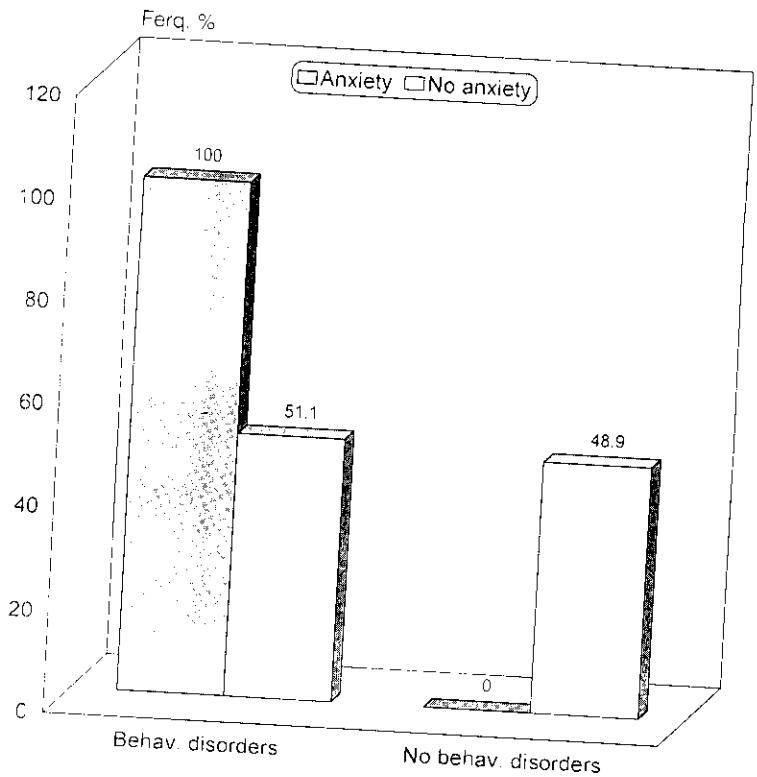
Personal – social at $P < 0.001$
Fine motor at $P < 0.05$
Language at $P < 0.05$
Gross motor at $P > 0.05$

Fig. (8) Effect of Depression on Behavioural Disorders



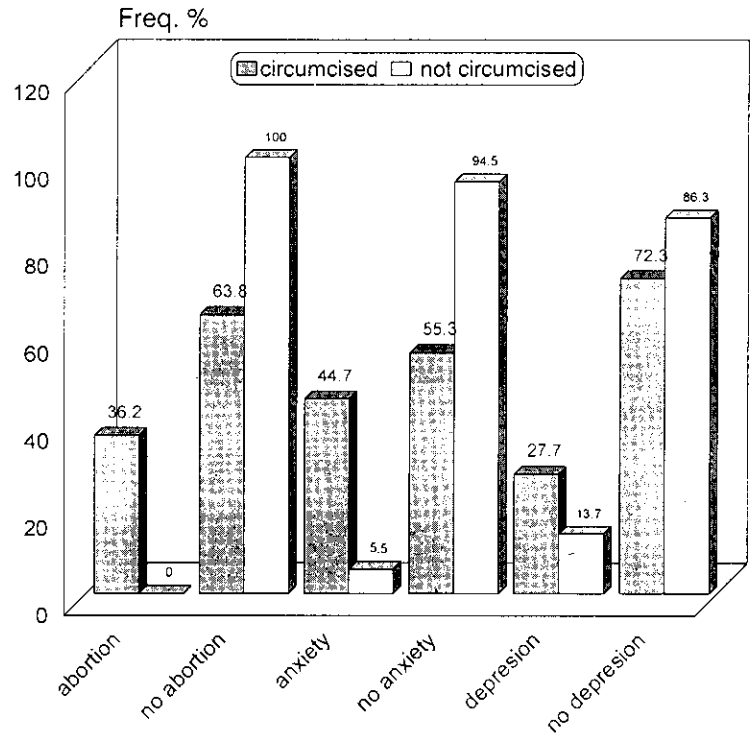
$P < 0.05$

Fig. (9) Effect of Anxiety on the Behaviour of the Infant



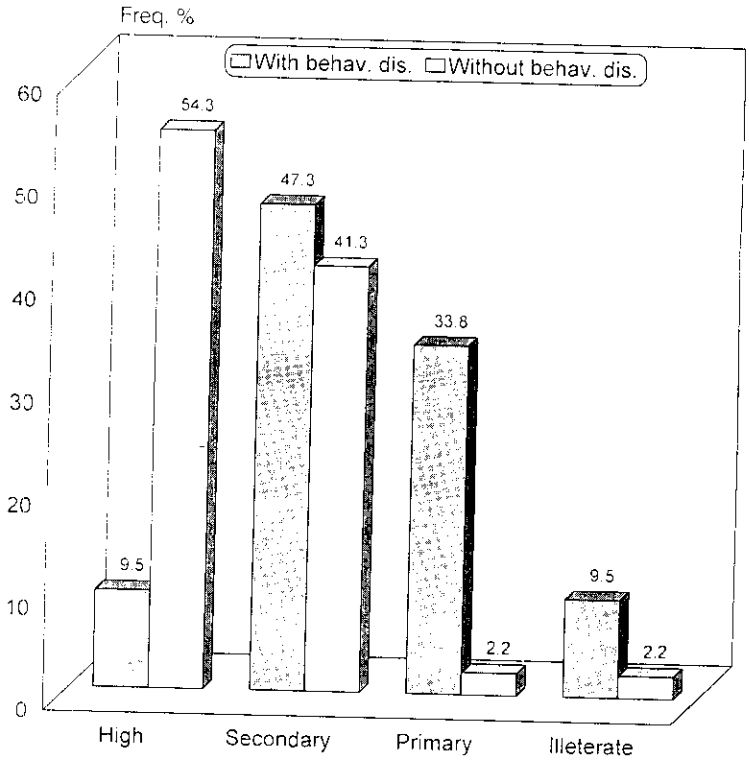
$P < 0.001$

Fig. 10) Correlation of Female Circumcision to the Occurrence of Abortion and the Psychological Status of the Mother



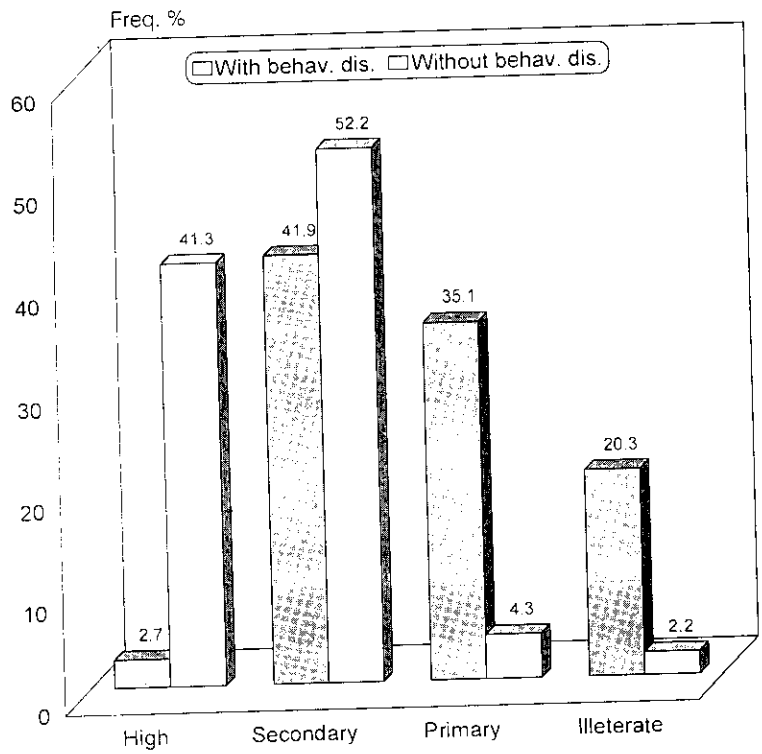
Effect on abortion at $P < 0.001$
Effect on anxiety at $P < 0.001$
Effect on depression at P 0.05

Fig(11) Effect of Paternal education on the Behaviour of the Infant



$P < 0.001$

Fig.(12) Effect of Maternal education on the Behaviour of the Infant



$P < 0.001$