RESULTS

RESULTS

Table (1): Percent distribution of grades of mantel retardation among the studied students according to school category.

Grades / Category	Mild retardation 50-70		Moderate Retardation 35-49		Severe Retardation 20-34		Total	
	No	%	No	%	No	%	No	%
Preparatory	2	8	8	32	15	60	25	20.83
Primary	17	22.37	36	47.37	23	30.26	76	63.34
Vocational	6	31.58	9	47.37	4	21.05	19	15.83
Total	25	20.83	53	44.17	42	35.00	120	100.00

Table (1) shows that the majority of the studied students belong to the primary category (63.34%) followed by those of the preparatory category (20.83%). The least percentage is encountered with those of the vocational category (15.83%).

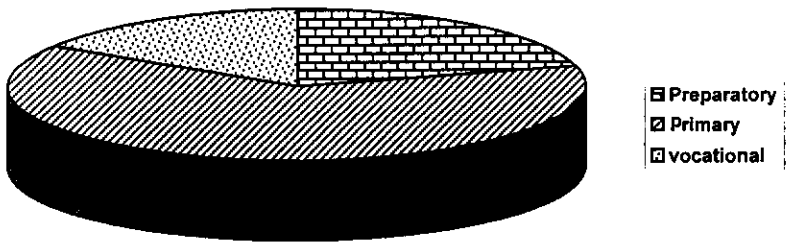

Fig. (1): Distribution of the studied group according to school category

Table (2): Age distribution of the studied mentally retarded students according to school category

Grade / Age	Preparatory		Primary		Vocational		Total	
	No	%	No	%	No	%	No	%
6 —	15	60	1	1.32	0	0	16	13.33
9 —	10	40	30	39.47	1	5.26	41	34.17
12 —	0	0	29	38.16	3	15.79	32	26.67
15 —	0	0	16	21.05	15	78.95	31	25.83
Total	25	20.83	76	63.34	19	15.83	120	100.00

Table (2) shows that the highest percentage of the studied group belongs to the age group 9 up to 12 years old (34.17%). The preparatory category students constitute 20.83%. The majority of them belongs to the age group 6 up to 9 years old. Primary category students constitute (63.34%). The highest percentage of them (77.63%) belong to the age group 9 up to 15 years . Vocational category students constitute (15.83%). The majority of them (78.95%) belongs to the age group 15 up to 17 years old.

Table (3): percent distribution of grades of mental retardation among the studied group according to age.

Grades / Age	Mild retardation 50-70		Moderate retardation 35-49		Severe retardation 20 -34		Total	
	No	%	No	%	No	%	No	%
6 —	1	6.25	5	31.25	10	62.5	16	13.33
9 —	9	22.5	19	47.5	12	30	40	33.34
12 —	10	20.41	13	38.24	11	32.35	34	28.33
15 —	5	16.67	16	53.33	9	30	30	25
Total	25	20.83	53	44.17	42	35	120	100

Table (3) shows that the majority of students belonging to the age group 6 up to 9 years , have severe grade of mental retardation (62.5%). While the majority of students belonging to the other age groups; 9 up to 12 years , , 12 up to 15 years , and 15 up to 17 years , have moderate grade of mental retardation (47.5% , 38.24%, 53.33%) respectively.

Table (4): Sex distribution of the studied mentally retarded students according to grades of mental retardation.

Grades / Sex	Mild retardation 50-70		Moderate retardation 35-49		Severe retardation 20-34		Total	
	No	%	No	%	No	%	No	%
Male	20	16.67	41	34.17	28	23.33	89	74.17
Female	5	4.16	12	10.00	14	11.67	31	25.83
Total	25	20.83	53	44.17	42	35.00	120	100.00

$x^2 = 1.959$ $P > 0.05$

Table (4) shows that females account for about one fourth of studied children. The M/F ratio is estimated to be 2.87: 1. This difference is statistically non-significant $P > 0.05$.

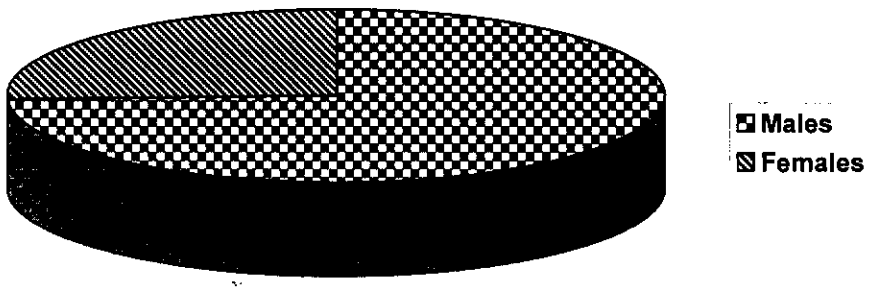

Fig. (2): Distribution of the studied group according to sex

Table (5): Distribution of grades of mental retardation according to residence.

Grades / Residence	Mild retardation 50-70		Moderate retardation 35-49		Severe retardation 20-34		Total	
	No	%	No	%	No	%	No	%
Rural	19	15.83	38	31.67	27	22.50	84	70
Urban	6	5.00	15	12.50	15	12.50	36	30
Total	25	20.83	53	44.17	42	35.00	120	100.00

$x^2 = 1.154$ $P > 0.05$

Table (5) shows that the majority of mentally retarded students are rural inhabitants (70%). This difference is statistically non-significant $P > 0.05$.

Table (6): Distribution of grades of mental retardation among the studied group according to family type.

Grades / Family type	Mild retardation 50-70		Moderate retardation 35-49		Severe retardation 20-34		Total	
	No	%	No	%	No	%	No	%
Nuclear	15	12.5	41	34.17	32	26.67	88	73.33
Extended	10	8.33	12	10	10	8.33	32	26.67
Total	25	20.83	53	44.17	42	35.00	120	100.00

$x^2 = 2.467$ $P > 0.05$

Table (6) shows that 26.67% of the studied group live in extended families. The difference between the different grades is statistically non-significant. $P > 0.05$.

Table (7): Distribution of grades of mental retardation among the studied group according to family pattern.

Grades / Family pattern	Mild retardation 50-70		Moderate retardation 35-49		Severe retardation 20-34		Total	
	No	%	No	%	No	%	No	%
Complete	24	20	45	37.5	34	28.33	103	85.83
Incomplete	1	0.83	8	6.67	8	6.67	17	14.17
Total	25	20.83	53	44.17	42	35.00	120	100.00

$x^2 = 2.935$ $P > 0.05$

Table (7) shows that about 14% of the studied group live in incomplete families with non-significant difference regarding the family pattern of the studied children. $P > 0.05$.

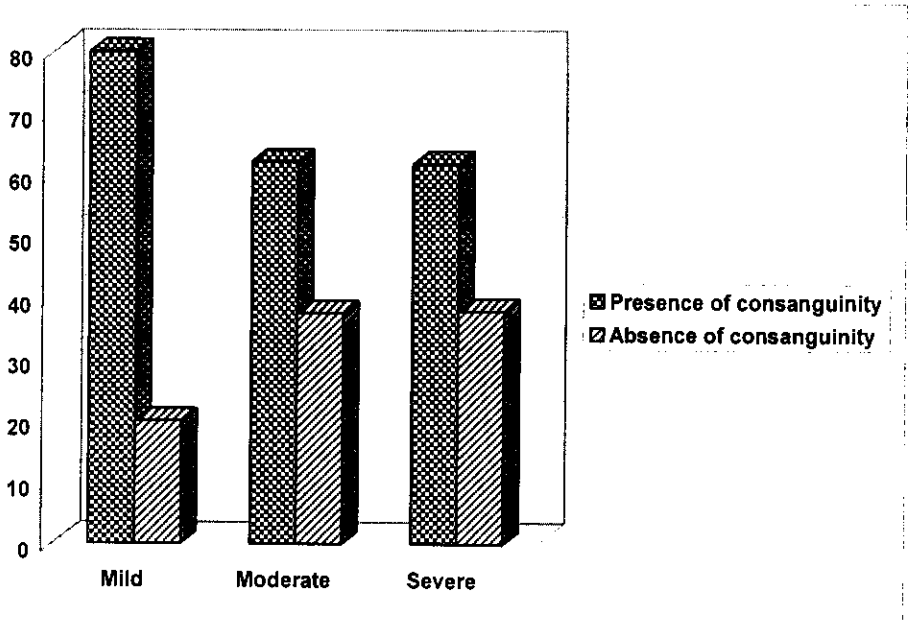

Fig. (3): Distribution of the studied group according to consanguinity.

Table (9) Distribution of grades of mental retardation among the studied group according to mother's education.

*Maternal education / Grades	Low maternal education (less than 12y)		High maternal education (more than 12y)		Total		Z	P
	No	%	No	%	No	%		
Mild retardation 50-70	24	96	1	4	25	100	19.008	< 0.05
Moderate retardation 35-49	50	94.34	3	5.66	53	100	9.066	< 0.05
Severe retardation 20-34	39	92.86	3	7.14	42	100	11.92	< 0.05
Total	113	94.17	7	5.83	120	100		

* Maternal education according to ***Decoufle and Boyle, (1995), Drews et al., (1995) Murphy et al., (1995)*** and ***Yeargin-Allsopp et al., (1995).***

Table (9) shows that there are statistically significant higher differences for the mild, moderate and severe grades of mental retardation in those who are off springs of low education mothers (less than 12 years of education at time of delivery) i.e. (Illiterate – R&W- Basic- Secondary) than those who are off springs of high education mothers (more than 12 years of education at time of delivery). $P < 0.05$ for all

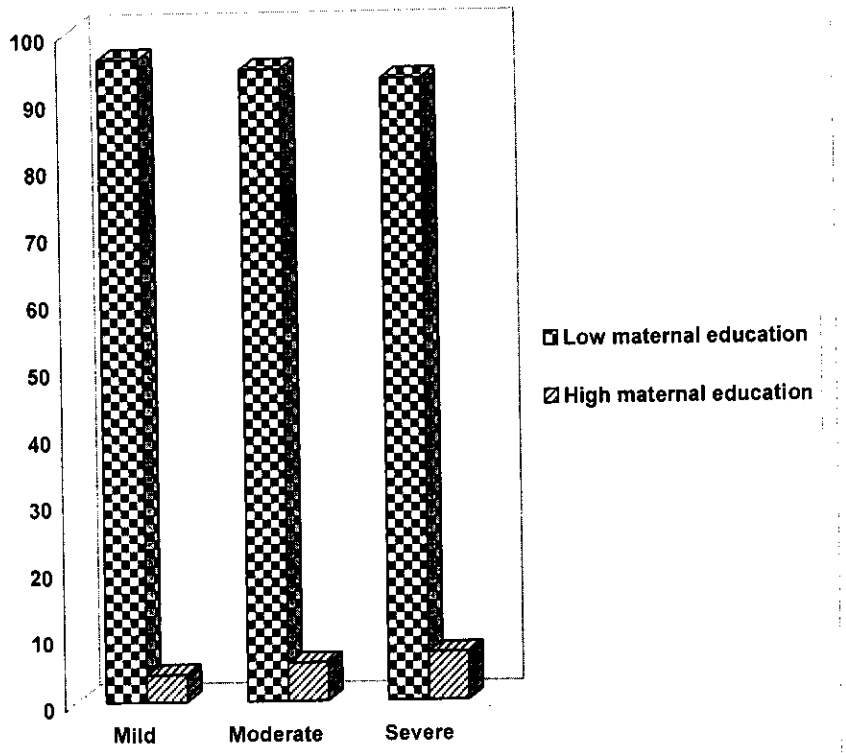

Fig. (4): Distribution of the studied group according to maternal education

Table (10): Distribution of grades of mental retardation among the

Table (14): Distribution of maternal prenatal care of mentally retarded students.

Prenatal care	No	%
Presence of prenatal care	33	27.5
Absence of prenatal care	87	72.5
Total	120	100.00

Table (14) shows that about three fourths of mothers of mentally retarded students have –ve history of prenatal care during their pregnancy.

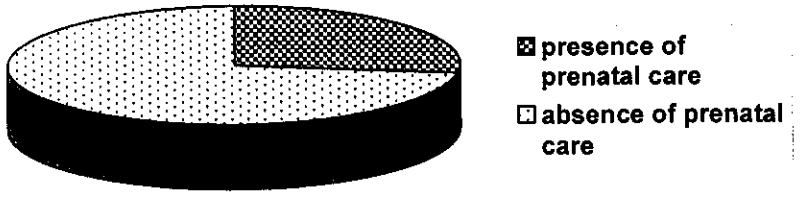

Fig. (6): Distribution of maternal prenatal care of mentally retarded students.

Table (15): Percent distribution of grades of mental retardation among the studied students according to maternal nutrition.

Maternal nutrition* / Grades	Unsatisfactory feeding		Satisfactory feeding		Total		Z	P
	No	%	No	%	No	%		
Mild retardation 50-70	23	27.72	2	5.40	25	20.83	2.78	< 0.05
Moderate retardation 35-49	32	38.55	21	56.76	53	44.17	1.85	> 0.05
Severe retardation 20-34	28	33.73	14	37.84	42	35.00	0.44	> 0.05
Total	83	69.17	37	30.83	120	100		

* Maternal nutrition according to the ***Nutritional institute manual, (1996)***

Table (15) shows that there is statistically significant higher difference for students of mild grade mental retardation who are off-springs of mothers with history of unsatisfactory feeding during their pregnancy than those whose mothers have history of satisfactory feeding. $P < 0.05$. On the other hand, there are statistically non significant differences for students with moderate and severe grades mental retardation who belong to mothers with unsatisfactory feeding during their pregnancy than those who are belonging to mothers with satisfactory feeding during their pregnancy. $P > 0.05$ for both .

Table (16): Distribution of grades of mental retardation among the mentally retarded students according to type of child food.

Type of child food* / Grades	Balanced		Unbalanced		Total		Z	P
	No	%	No	%	No	%		
Mild retardation 50-70	5	10.87	20	27.03	25	20.83	2.119	< 0.05
Moderate retardation 35-49	24	52.17	29	39.19	53	44.17	0.928	> 0.05
Severe retardation 20-34	17	36.96	25	33.78	42	35	0.354	> 0.05
Total	46	38.33	74	61.67	120	100		

* Type of child food according to the Nutritional institute manual, 1996

Table (16) shows that 61.67% of the studied students have unbalanced food. There are statistically significant lower difference for mentally retarded students belonging to the category of mild mental retardation in those who have balanced food (10.87%). than those having unbalanced food (27.03%). $P < 0.05$.

There are statistically non-significant differences for those complaining of moderate and severe mental retardation who have balanced food (52.17%, 36.96%) respectively than those with unbalanced food (39.19 % , 33.78%) respectively. $P > 0.05$ for both.

Table (17): Distribution of grades of mental retardation among the mentally retarded students according to type of infant feeding.

Grades / Type of feeding	Mild 50-70		Moderate 35-49		Severe 20-34		Total	
	No	%	No	%	No	%	No	%
Non-exclusive Breast feeding.	20	16.67	47	39.17	34	28.33	101	84.17
Bottle feeding.	5	4.16	6	5.00	8	6.67	19	15.83
Total	25	20.83	53	44.17	42	35.00	120	100.0

$x^2 = 1.46$ $P > 0.05$

Table (17) shows that about one sixth of the studied group was bottle-fed. The percentage of bottle-fed infants is higher in severe grade 6.67% than those of mild and moderate grades (4.17% , 5.00%) respectively. These differences are statistically non-significant. $P > 0.05$.

Table (18): Distribution of grades of mental retardation among the mentally retarded students according to mother's age at delivery.

Grades / Age	Mild retardation 50-70		Moderate Retardation 35-49		Severe retardation 20-34		Total	
	No	%	No	%	No	%	No	%
18-	9	36.00	22	41.51	18	42.86	49	40.83
28-	12	48.00	22	41.51	6	14.28	40	33.33
38-48	4	16.00	9	16.98	18	42.86	31	25.84
Total	25	20.83	53	44.17	42	35.00	120	100.00

$x^2 = 14.694$ $P < 0.05$

Table (18) shows that the highest percentage of mentally retarded students are related to mothers of the age group 18 up to 28 years (40.83%) followed by mothers of the age group 28 up to 38 years (33.33%). Mothers of age group 38 up to 48 years constitute about one fourth of the studied group (25.83%). Mothers of the age group 28 up to 38 years constitute about half of the mothers of students related to mild category. Mothers of the age group 38 up to 48 years constitute (16.98%) of mothers of students related to the moderate grade, with equal percentage to those of the other groups (41.51%) each. Mothers of the age group 28 up to 38 years constitute the least percentage (14.28%) of mothers of students related to the severe grade with equal percentage to the other age groups (42.86%) each. These differences are statistically significant. $P < 0.05$.

Table (19): Distribution of maternal past history of unfavorable outcome of previous pregnancies for mothers of mentally retarded child.

Maternal past H.	No	%
Unfavorable outcome.		
Lethal		
Abortion	23	19.17
Stillbirth	2	1.67
Previous neonatal deaths	13	10.83
Sublethal (another mentally retarded children).	24	20
Favorable outcome.	72	60

Table (19) shows that maternal past history of unfavourable lethal outcome of pregnancy can be detected in (31.67%) of the studied group. Lethal outcome takes one of these forms : abortion (19.17%), stillbirth (1.67%) or previous neonatal deaths (10.83%).

Table (20): Distribution of grades of mental retardation among the mentally retarded students according to parental mental retardation.

Parental M.R / Grades	Presence of parental M.R		Absence of Parental M.R		Total		Z	P
	No	%	No	%	No	%		
Mild retardation 50-70	2	28.57	23	20.35	25	20.83	0.419	> 0.05
Moderate retardation 35-49	3	42.86	50	44.25	53	44.17	0.072	> 0.05
Severe retardation 20-34	2	28.57	40	35.40	42	35.00	0.367	> 0.05
Total	7	5.83	113	94.17	120	100		

Table (20) shows that although there are differences for students complaining of mild, moderate and severe mental retardation in those who have parents with mental retardation (28.57%, 42.86%, 28.57%) respectively and those who don't have parents with mental retardation (20.35%, 44.25%, 35.4%) respectively yet these differences are statistically non-significant. $P > 0.05$.

Table (21): Distribution of grades of mental retardation among the studied group according to family history of mental retardation

History in both families / Grades	Presence of + ve history		Absence +ve history		Total		Z	P
	No	%	No	%	No	%		
Mild retardation 50-70	8	25.81	17	19.10	25	20.83	0.792	> 0.05
Moderate retardation 35-49	16	51.61	37	41.57	53	44.17	0.969	> 0.05
Severe retardation 20-34	7	22.58	35	39.33	42	35.00	1.683	> 0.05
Total	31	25.83	89	89	120	100		

Table (21) shows that there are 25.83% of mentally retarded students with positive family history for mental retardation. There are statistically non- significant differences between those who have + ve family history of mental retardation (25.81%, 51.61%, 22.58%) and those who don't have (19.10%, 41.57%, 39.33%) for mild, moderate and severe grades respectively. $P > 0.05$ each.

Table (22): Distribution of grades of mental retardation among the studied group according to another mentally retarded siblings

Grades / Another mentally retarded siblings	Mild retardation 50-70		Moderate retardation 35-49		Severe retardation 20-34		Total	
	No	%	No	%	No	%	No	%
Presence	10	8.33	11	9.17	3	2.5	24	20.00
Absence	15	12.50	42	35	39	32.5	96	80.00
Total	25	20.83	53	44.17	42	35.00	120	100.00

$x^2 = 10.608$ $P < 0.05$

Table (22) shows that 20% of the sample have mentally retarded sibling. They are distributed as follows; 8.33% for the mild grade, 9.17% for the moderate grade and 2.5% for the severe grade. These differences are statistically significant. $P < 0.05$.

Table (23): Distribution of grades of mental retardation among the studied group according to attention problems.

IQ / Attention problems	Mild		Moderate		Severe		Total	
	No	%	No	%	No	%	No	%
Presence	14	56	36	67.92	39	92.86	89	74.17
Absence	11	44	17	32.08	3	7.14	31	25.83
Total	25	20.83	53	44.17	42	35.00	120	100.0

$x^2 = 13.029$ $P < 0.05$

Table (23) shows that about 74% of the total sample have attention problems. About 93% of students of the severe grade have this problem compared with 56% of students of the mild grade.

Table (24): Distribution of grades of mental retardation among the studied group according to special facies .

Facies / Grades	Abnormal facies		Normal facies		Total		Z	P
	No	%	No	%	No	%		
Mild (50-70)	0	0	25	29.76	25	20.83	3.679	< 0.05
Moderate (35-49)	11	30.56	42	50	53	44.17	1.966	< 0.05
Severe (20-34)	25	69.44	17	20.24	42	35	5.179	< 0.05
Total	36	30	84	70	120	100		

Table (24) shows that mentally retarded students exhibit statistically significant higher frequencies of normal facies for mild and moderate grades (29.76%, 50%) respectively. $P < 0.05$ While, children with severe grade mental retardation show statistically significant higher percentage for abnormal facies (69.44%). $P < 0.05$.

Table (25): percent distribution of height percentiles of the studied mentally retarded students according to grades of mental retardation

Grades / Height percentiles *	Mild retardation 50-70		Moderate retardation 35-49		Severe retardation 20-34		Total	
	No	%	No	%	No	%	No	%
Below 5th	5	20	16	30.19	21	50	42	35
5 —	8	32	17	32.08	15	35.71	40	33.33
25 —	10	40	15	28.30	5	11.91	30	25
75 – 95	2	8	5	9.43	1	2.38	8	6.67
Total	25	20.83	53	44.17	42	35.00	120	100.00

$x^2 = 11.962$ $P > 0.05$

* Height percentiles according to the percentile charts of ***Nelson et al., (1987).***

Table (25) shows that the height percentiles of (35%)of mentally retarded students are below the 5th percentile. Those whose height percentiles 5 up to 25 constitute (33.33%) of mentally retarded students. The least percentage of height percentiles of mentally retarded students lies between 75up to 95 percentile (6.67%). The highest percentage of cases of the mild category belong to 25 up to 75 percentile (40%). The highest percentage of cases of the moderate grade belong to 5 up to 25 percentile (32.08%). While, the highest percentage of the severe grade belongs to below 5th percentile (50%). These differences are statistically non-significant. $P > 0.05$.

Table (26): Percent distribution of weight percentiles of the studied mentally retarded students according to grades of mental retardation

Grades / Weight percentiles *	Mild retardation 50-70		Moderate retardation 35-49		Severe retardation 20-34		Total	
	No	%	No	%	No	%	No	%
Below 5th	8	32.00	19	35.85	12	28.57	39	32.50
5 –	11	44.00	17	32.08	13	30.95	41	34.17
25 –	5	20.00	11	20.75	9	21.43	25	20.83
75-95	1	4.00	6	11.32	8	19.05	15	12.50
Total	25	20.83	53	44.17	42	35.00	120	100.00

$x^2 = 4.247$ $P = > 0.05$

* Weight percentiles according to the percentile charts of *Nelson et al., (1987).*

Table (26) shows that 32.50% of the studied group have weight percentiles below the 5th percentile. Only (12.5%) have weight percentile 75 up to 95 percentile. Differences in weight percentile of mentally retarded children are statistically non significant. $P > 0.05$.

Table (27): Percent distribution of head circumference percentiles of the studied mentally retarded students according to grades of mental retardation.

Grades / H.C percentiles *	Mild retardation 50-70		Moderate retardation 35-49		Severe retardation 20-34		Total	
	No	%	No	%	No	%	No	%
Below 3rd	4	16.00	7	13.21	22	52.38	33	27.5
10 –	7	28.00	18	33.96	11	26.20	36	30
25 –	13	52.00	21	39.62	5	11.9	39	32.5
75 –	1	4.00	4	7.55	3	7.14	8	6.7
Above 97	0	0.00	3	5.66	1	2.38	4	3.3
Total	25	20.83	53	44.17	42	35.00	120	100.00

$x^2 = 26.49$ $P < 0.05$

*H.C. percentiles according to the percentile charts of ***For far and Arneil, (1973).***

Table (27) shows that 27.5 % of the studied group have microcephaly (blow the 3rd percentile). Only (3.3%) of mentally retarded students have macrocephaly (above 97th percentile). Differences in head circumference of mentally retarded students are statistically significant. $P < 0.05$.

Table (28): Distribution of grades of mental retardation among the studied group according to tone.

Grades / Tone	Mild retardation 50-70		Moderate Retardation 35-49		Severe Retardation 20-34		Total	
	No	%	No	%	No	%	No	%
Hypotonia	2	1.66	9	7.5	24	20.00	35	29.16
Hypertnoia	0	0	2	1.67	10	8.33	12	10.00
Normotonia	23	19.17	42	35.00	8	6.67	73	60.84
Total	25	20.83	53	44.17	42	35.00	120	100.00

$x^2 = 49.37$ $P < 0.05$

Table (28) shows that about 40% of the studied group have tone abnormalities. About 30% are diagnosed to have hypotonia while 10% are diagnosed to have hypertonia. Students of the severe grade constitute the highest percentage of children with hypotonia 20.00% followed by moderate grade 7.5%. Students of severe grade constitute about 8.33% of children with hypertonia followed by those of moderate grade 1.67%. These differences are statistically significant. $P < 0.05$

Table (29): Distribution of grades of mental retardation among the studied group according to motor function.

Motor weakness / Grades	Presence of motor weakness		Absence of motor weakness		Total		Z	P
	No	%	No	%	No	%		
Mild retardation 50-70	3	6.12	22	30.99	25	20.83	3.296	< 0.05
Moderate retardation 35-49	11	22.45	42	59.15	53	44.17	3.980	< 0.05
Severe retardation 20-34	35	71.43	7	9.86	42	35	6.95	< 0.05
Total	49	40.83	71	59.17	120	100		

Table (29) shows that 40.83% of the studied group have motor weakness. The highest percentage of students with motor weakness is encountered with those of the severe grade (71.43%). The least percentage is encountered with mildly retarded students (6.12%). Differences for all grades regarding motor weakness are statistically significant $P < 0.05$ for all .

Table (30): Distribution of grades of mental retardation among the studied group according to gait abnormalities

Gait abnormalities / Grades	No gait abnormalities		gait abnormalities		Total		Z	P
	No	%	No	%	No	%		
Mild retardation 50-70	24	22.43	1	7.7	25	20.83	1.236	>0.05
Moderate retardation 35-49	52	48.60	1	7.7	53	44.17	2.805	< 0.05
Severe retardation 20-34	31	28.97	11	84.6	42	35	3.972	< 0.05
Total	107	89.17	13	10.83	120	100		

Table (30) shows that 10.83% of the studied group have gait abnormalities. The highest percentage of those who have gait abnormalities (84.6%) is encountered with children with severe grade mental retardation. The differences regarding gait abnormalities are statistically significant for moderate and severe grades $P < 0.05$.