

## **The results**

From the middle sector of the Dakahlia governorate in the lower Egypt, the students with chronic health conditions in 3<sup>rd</sup> and 6<sup>th</sup> grades in four primary school were documented during the academic year 2009-2010 .

A full medical report of the child's condition was given . This Included a medical and developmental history and complete medical examination was done .

Our study comprised a total 221 cases with chronic health conditions, (from 1350 students who were the total students in our study) 96 (43.6% ) were males and 125 ( 56.4 % ) were females . Their age was 9 - 12 years. Consanguinity was positive in 61 cases ( 27.6 % ).

205 cases ( 94.5 % ) had isolated chronic health conditions, 81 ( 39.3 % ) were males And 124 ( 60.6 % ) were females.

- \* 63 cases had visual defects
- \* 49 cases had speech disorders
- \* 32 cases had rheumatic heart disease
- \* 30 cases had auditory disorders
- \* 12 cases had motor disabilities
- \* 9 cases had bronchial asthma
- \* 7 cases had bleeding tendency

\* 3 cases had diabetes mellitus.

16 cases (7.2 %) had more than one chronic health conditions, 3 (18.7 %) males, and 13 ( 81.3 % ) females .

\* 6 cases of them had visual and auditory disorder

\* 3 had visual and speech disorder

\* 2 cases had visual and motor disability

\* 2 cases had motor and speech disorder

\* 1 had rheumatic heart disease and visual defect

\* 1 had speech and auditory disorder

\* 1 had bronchial asthma and visual defect.

The total number of the visual defects = 63 (4.6 %) isolated visual defect and those presented as a part of more than one chronic health conditions were an additional 13 cases ( 0.9% ). So the total visual defect equal  $63 + 13 = 76$  cases (5.6 % ) .

The total number of the speech disorders = 49 cases ( 4.3 % ) isolated speech disorder and those presented as a part of more than one chronic health conditions were an additional 6 cases ( 0.4 % ) = 55 cases (4.8 % ) .

The total number of the rheumatic heart disease = 32 ( 2.3 % ) isolated rheumatic heart disease and those presented as a part of more than one chronic health conditions were an additional 1 cases ( 0.07 % ) = 33 cases ( 2.4 % ) .

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The total number of the auditory defects = 30 ( 2.2 % )  
isolated auditory defect and those presented as a part of more than  
one disabilities were an additional 7 cases (0.5 %) = 37 cases (2.7 %).

The total number of the motor disabilities= 12 ( 1.06 % )  
isolated motor disability and those presented as a part of more than one  
chronic health conditions were an additional 4 cases ( 0.2 % ) = 16 cases ( 1.1 % ) .

The total number of the bronchial asthma = 9 ( 0.6 % ) isolated  
bronchial asthma and those presented as a part of more than one  
chronic health conditions were an additional 1 case (0.07 %) = 10 cases  
(0.7% ) .

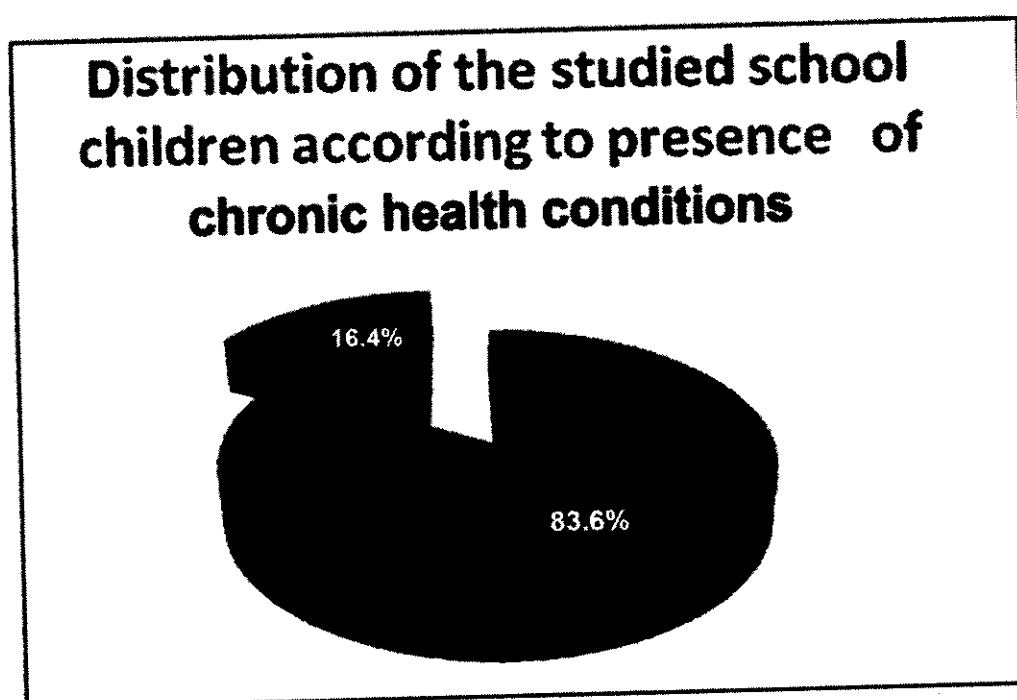
The total number of bleeding tendency = 7 cases ( 0.5 % ) .

The total number of the Diabetes mellitus ( DM) = 3 ( 0.2 % ) .

**Table (1): distribution of the studied school children according to presence of the chronic health conditions .**

<b><i>Students</i></b>	<b>No</b>	<b>%</b>
<b><i>Normal</i></b>	<b>1129</b>	<b>83.6</b>
<b><i>Chronically diseased students</i></b>	<b>221</b>	<b>16.4</b>
<b><i>Total</i></b>	<b>1350</b>	<b>100.0</b>

**Figure (1):**



**Table (1) illustrated to figure (1) shows that the prevalence of the chronic health conditions among school children was 16.4% .**

**Table (2): Distribution of the studied school children according to their type.**

<b>Students</b>	<b>No</b>	<b>%</b>
<b>Normal</b>	<b>1129</b>	<b>83.6</b>
<b>Visual</b>	<b>63</b>	<b>4.6</b>
<b>Speech</b>	<b>49</b>	<b>3.6</b>
<b>Rheumatic heart disease</b>	<b>32</b>	<b>2.3</b>
<b>Auditory</b>	<b>30</b>	<b>2.2</b>
<b>Bronchial asthma</b>	<b>9</b>	<b>0.6</b>
<b>Motor</b>	<b>12</b>	<b>1.18</b>
<b>Diabetes mellitus</b>	<b>3</b>	<b>0.2</b>
<b>Bleeding tendency (hemophilia)</b>	<b>7</b>	<b>0.5</b>
<b>More than one</b>	<b>16</b>	<b>1.2</b>
<b>Total</b>	<b>1350</b>	<b>100.0</b>

**Table (2) shows that the prevalence of chronic health conditions among school children was 4.6 % visual, 3.6 % speech, 2.3% rheumatic heart disease, 2.2 % auditory, 1 % motor, 0.6 % bronchial asthma, 0.5 % bleeding tendency, 0.2 % endocrinal, 1.2 % more than one .**

Table (3): Sex distribution of the chronically diseased school children.

<i>Sex</i>	<i>No</i>	<i>%</i>
<i>Male</i>	<i>96</i>	<i>43.7</i>
<i>Female</i>	<i>125</i>	<i>56.3</i>
<i>Total</i>	<i>221</i>	<i>100.0</i>

Figure (3):

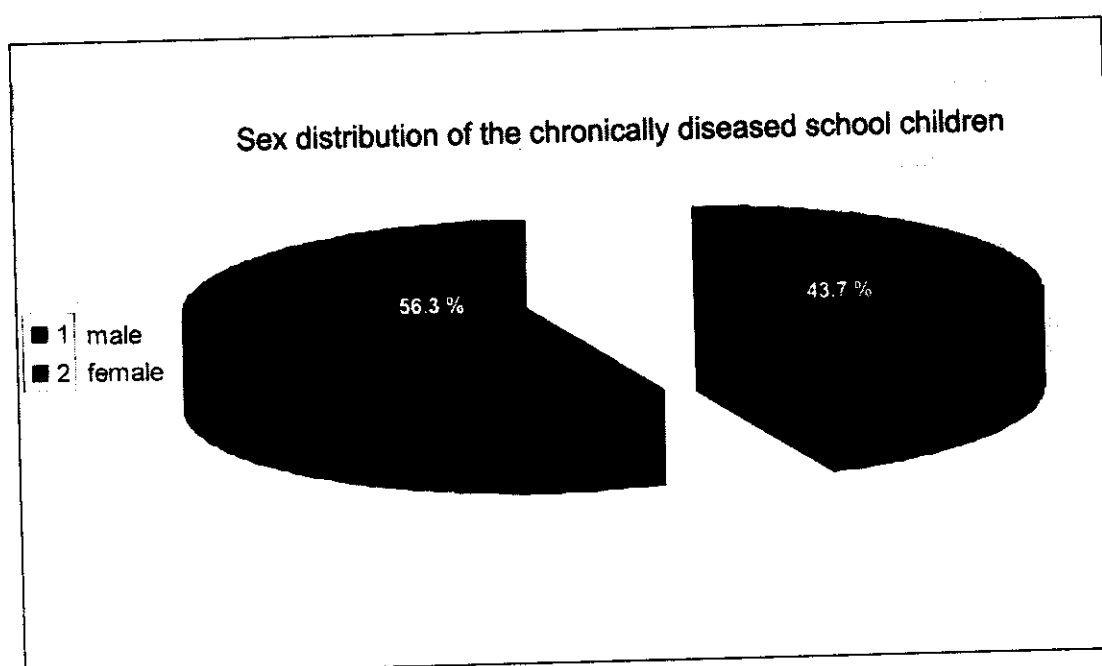


Table (3) illustrated to figure (3) shows that the prevalence of the chronic health conditions among male was 43.7%, and among female was 56.3 % .

Table (4): Prevalence of single & more than one chronic health conditions .

Type	No	%
Single	205	92.8
More than one	16	7.2
Total	221	100

Figure (4):

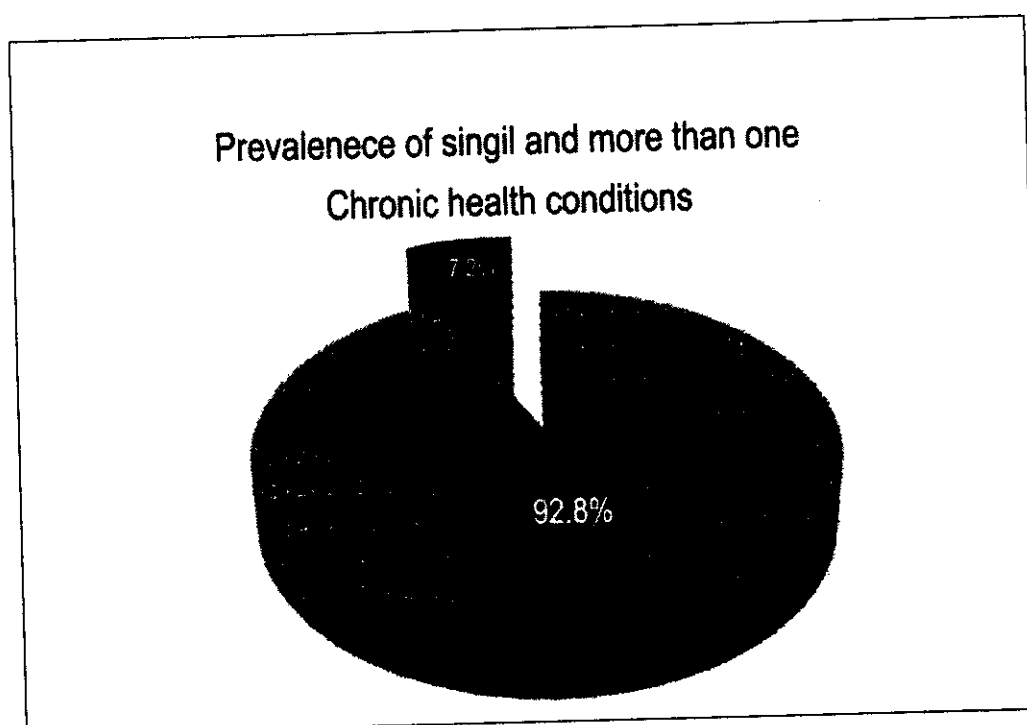


Table (4) illustrated to figure (4) shows that the prevalence of the chronic health conditions among school children was 92.8 % single and 7.2 % more than one.

**Table (6): distribution of the Mothers of the chronically diseased school children according to their education.**

Mother education	Chronically diseased school children	
	No	%
Illiterate	81	36.6
Read & write	49	22.2
Secondary school	55	24.8
High	35	15.7
Post graduate	1	0.6
Total	221	100.0

Figure (6):

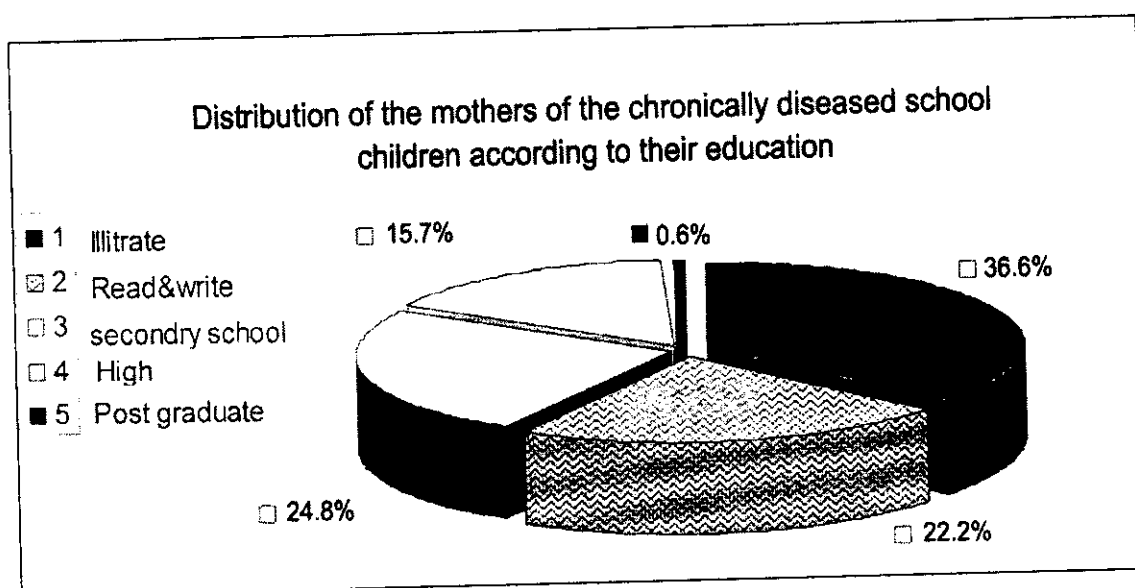


Table (6) illustrated to figure (6) shows that the incidence of different types of the mother's education of the chronically diseased school children was 36.6 % illiterate, 22.2 % read & write, 24.8 % secondary, 15.7 % high, 0.6 % post graduate.



Table (7): The incidence of the consanguinity in the families of the chronically diseased school children.

Consanguinity	Normal school children		Chronically diseased school children	
	No	%	No	%
Consanguineous	149	13.2	61	27.6
Non-consanguineous	980	86.8	160	72.4
Total	1129	100.0	221	100.0

Figure (7):

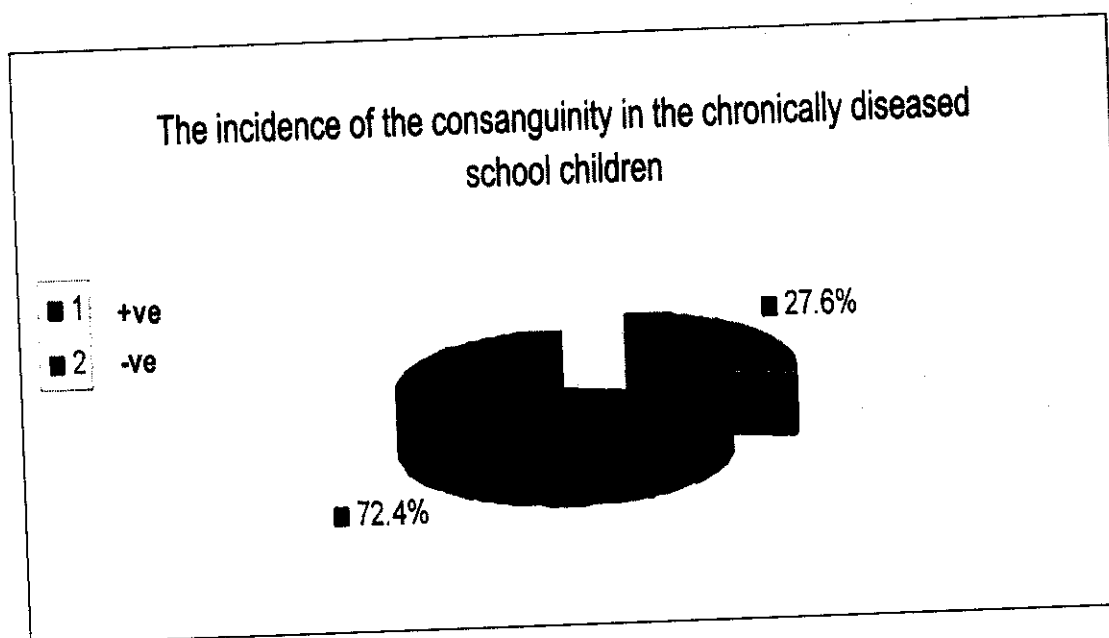


Table (7) illustrated to figure (7) shows that the prevalence of +ve consanguinity in the families of the chronically diseased school children was 27.6 %.

Table (8): The attitude of the chronically diseased school children towards their schools.

Attitude to the school	Normal school children		Chronically diseased school children	
	No	%	No	%
Love	1053	93.3	198	89.9
Hate	76	6.7	23	10.1
Total	1129	100.0	221	100.0

Figure (8):

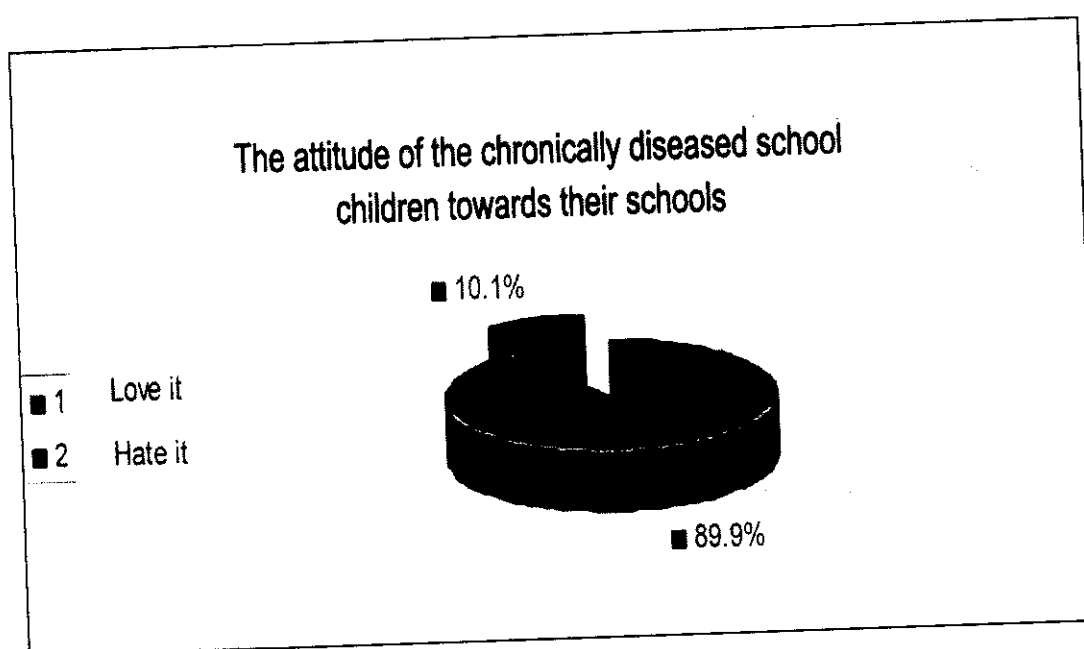


Table (8) illustrated to figure (8) shows that the attitude of the chronically diseased school children towards their school was 89.9 % love it. 10.1 % hate it .

Table (9): scholastic achievement of the studied school children.

Grade	Normal		chronically diseased children		Total	
	No	%	No	%	No	%
Excellent	434	38.4	73	33.1	507	37.4
Very good	320	28.3	43	19.6	363	64.4
Good	176	15.7	31	14.0	207	15.3
Passed (accepted)	109	9.7	48	21.8	157	11.6
Failed	90	8.0	26	11.8	116	8.7
Total	1129	100.0	221	100.0	1350	100.0

$$X^2 = 35.15$$

$$p < 0.001$$

Figure (9-a):

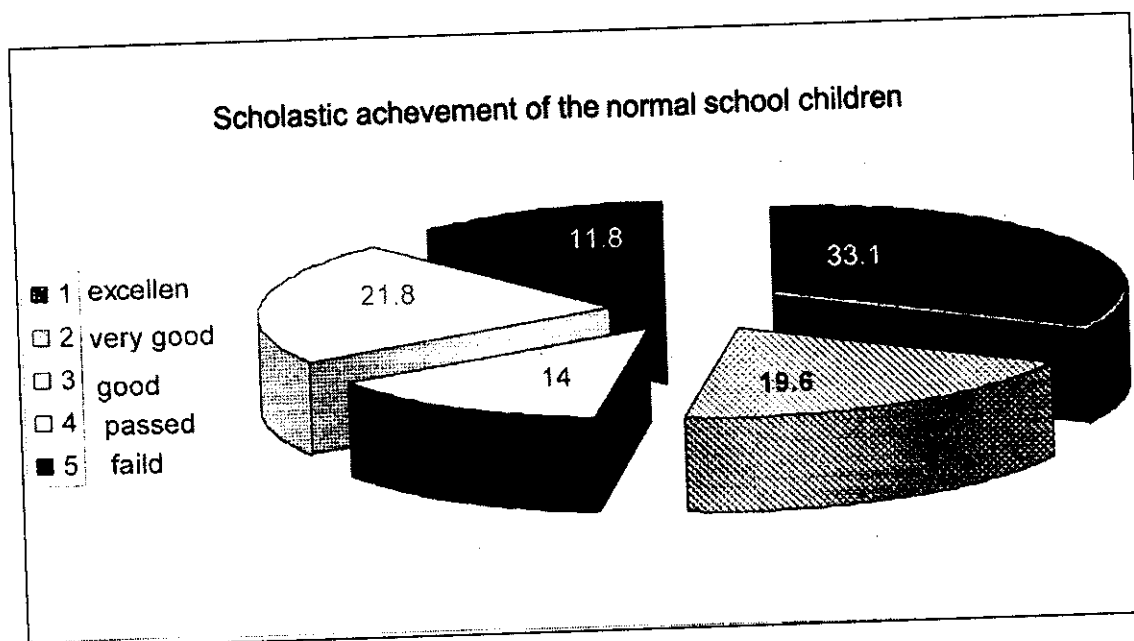


Figure (9-b):

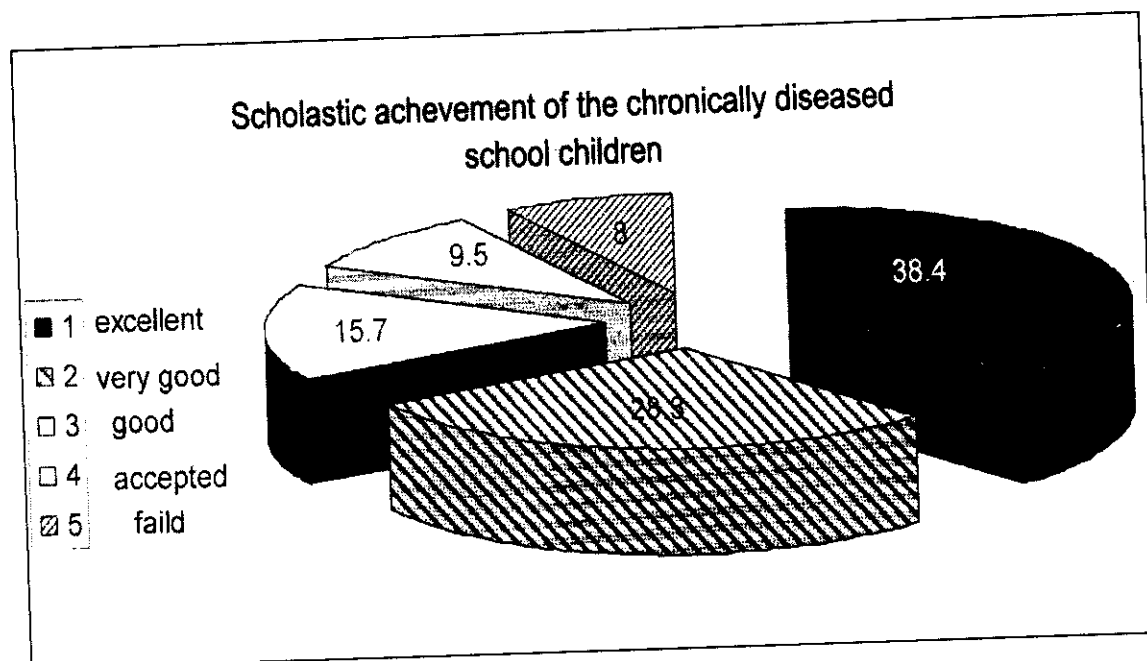


Table (9) illustrated to figure (9-a) and figure (9-b) shows that the scholastic achievement of the chronically diseased school children was 33.1 % excellent, 19.1 % very good, 14.0 % good, 21.8 % accepted, 11.8 % failed .

Table (10, 11): Analysis of variance

**Descriptive**

Final score	N	Mean	Std. deviation	minimum	Maximum
Non-disabled	1129	121.2484	30.2720	30.00	198.00
Visual disorder	63	105.3197	27.2360	50.00	159.00
Hearing defect	30	76.0667	28.0679	40.00	149.00
Rheumatic heart disease	32	131.6875	22.0431	84.00	157.00
Speech defect	49	124.0254	29.9722	51.00	169.00
Br. Asthma	9	121.3333	26.7628	90.00	160.00
Motor disability	12	126.2500	31.6059	57.00	155.00
D.M.	3	132.0000	15.5563	121.00	143.00
More than one	16	52.0435	.7057	51.00	53.00
Bleeding tendency	7	124.0254	28.0679	92.00	168.00
Total	1350	181.7900	31.7682	30.00	198.00

$$F = 23.206$$

$$P < 0.01$$

**Multiple Comparisons**

Dependent variable: Final Score

LSD

(I) VAR00003 (J) VAR00003	Mean difference	Std. Error	P	95%Confidence Interval	
				Lower Bound	Upper Bound
Visual disorder	15.9288*	3.8979	.000	8.2821	23.5755
Hearing defect	45.1818*	5.4849	.000	34.4219	55.9417
Rheumatic heart disease	-10.4391*	5.3153	.050	-20.8663	-1.1790E-02
Speech defect	-2.7770	3.9601	.483	-10.5456	4.9917
Br. Asthma	-8.4894E-2	9.9222	.993	-19.5497	19.3799
Motor disability	-5.0016	8.6043	.561	-21.8809	11.8778
D.M.	-10.7516	20.9829	.608	-51.9145	30.4113
More than one	69.2050*	6.2451	.000	56.9537	81.4562

Figure (10):

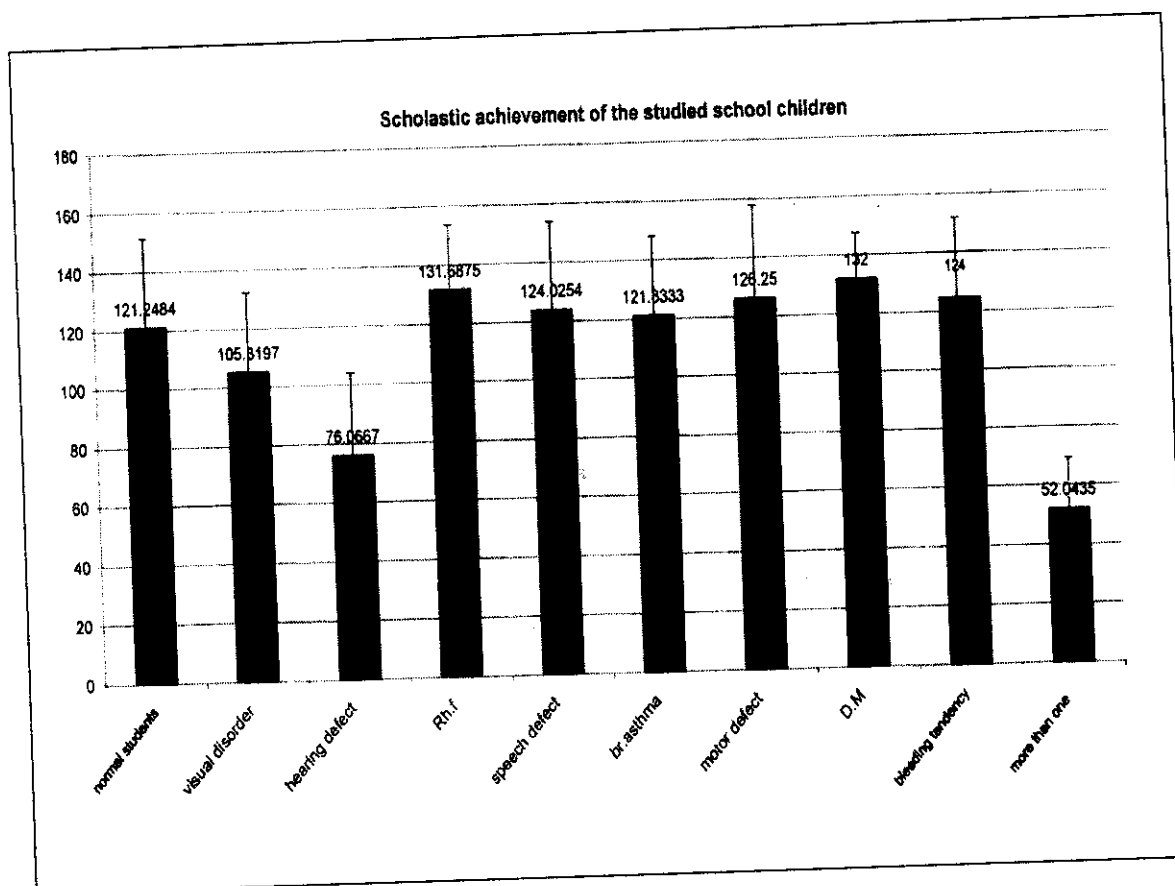


Table ( 10, 11 ) illustrated to figure (10 ) shows the difference in the scholastic achievement of the studied school children.