ANALYSIS OF RESULTS

Table (1) and table (2) show the sociomedical variables of cases of chronic liver disease compared to control. M/F ratio is 14/11 in cases of chronic liver disease and is 13/12 in control. The mean age of the patients with chronic liver disease was 12.42 ± 1.754 y. (range 7-14 y.). And was 12.02 ± 2.128 y. in control with the range of 8-14 y. the difference was statistically non significant ($P > 0.05$). The mean age at diagnosis of cases of chronic liver disease was 8.04 ± 2.032 with the range of 6.12 y. Regarding the socioeconomic state, its mean value was 4.06 ± 0.91 in cases of chronic liver disease and 4.24 ± 0.92 in control with the range of 3-6 in both cases and control. The difference was statistically non significant ($P > 0.05$).

Table (3) and Fig. (1) show the school achievement in cases of chronic liver disease compared to control. Regarding average school achievement, there was statistically significant higher percentage in control (88%) than in cases of chronic liver disease (28%), however, in below average school achievement, there was statistically significant higher percentage in cases of chronic liver disease (72%) than in control (12%) ($P < 0.01$).

Table (4) and Fig. (2) show the depression scale in cases of chronic liver disease compared to control, the relation was significant ($P < 0.01$). As Regard no depression, there was statistically significant difference between control (92%) and cases of chronic liver disease (28%), however in mild depression, there was statistically significant difference between cases (46%) and control (8%). Also in moderate depression, the

difference between cases (26%) and control (Zero) was statistically significant ($P < 0.01$).

Table (5) and table (6) show that the intelligence quotient score (I.Q) was classified into below average (< 90), average (90 – 110) and above average (> 110). The below average I.Q scores (< 90) were recorded in 26% of the studied cases with the mean of 84.85 ± 2.07 and in 12% of control with the mean of 86.66 ± 1.53. The average I.Q scores (90 – 110) were recorded in 68% of cases with the mean of 102.41 ± 5.47 and in 72% of control with the mean of 105.5 ± 3.33. The above average I.Q. scores (> 110) were recorded in 6% of cases with the mean of 112.66 ± 1.16 and in 16% of control with the mean of 117 ± 4.16. The total mean of cases is 98.46 ± 9.67 and 105.8 ± 8.74 in control.

Table (7) and Fig. (3) show the I.Q scores in cases of chronic liver disease compared to control. As regard the below average IQ scores (<90), there was statistically non significant difference between the cases (26%) and control (12%) ($P > 0.05$), while for average I.Q scores (90-110), there was statistically significant difference between the cases (68%) and control (72%) ($P < 0.05$). Regarding the above average I.Q scores (> 110), there was statistically significant difference between cases (6%) and control (16%) ($P > 0.05$). There was statistically significant difference between the I.Q scores of the total cases and control ($P < 0.05$).

Table (8) shows the school achievement in relation to the I.Q scores in the cases of chronic liver disease. As regard I.Q (< 90), there was statistically significant difference between the below average school achievement (36.11%) and the average school achievement (zero), ($P < 0.01$). Regarding I.Q (90-110), there was statistically non significant

difference between the average school achievement (78.57%) and the below average (63.89%) ($P > 0.05$). For I.Q (> 110), there was statistically non significant difference between the higher percentage average school achievement (21.43%) and the below average school achievement (zero) ($P > 0.05$).

Table (9) shows the school achievement in relation to the depression scale in cases of chronic liver disease. As regard cases with no depression, there was statistically significant difference between the average (57.14%) and the below average school achievement ($P < 0.05$). Cases of mild depression show statistically non significant difference between the average school achievement (28.57%) and the below average school achievement (52.78%) ($P > 0.05$). In cases of moderate depression, there was statistically non significant difference between the average (14.29%) and the below average school achievement (30.55%) ($P > 0.05$).

Table (10) and Fig. (4) show the illness characteristics including :

- The percentage of cirrhosis among the cases of chronic liver disease was 22%.
- Hospital admission : Cases with no history of admission were 32%, while those with history of admission less than once per month were 50%, and cases admitted more than once a month were 18%.

Table (11) show the relation between the presence of liver cirrhosis and the school achievement. Regarding the average school achievement, there was statistically significant difference between the cirrhotic patients (9.09%) and the non cirrhotic patients (33.33%) ($P < 0.05$). While in the below average school achievement, there was statistically significant

difference between the cirrhotic patients (90.91%) and the non cirrhotic patients (66.67%) ($P < 0.05$).

Table (12) shows the relation between the impact of illness and the school achievement in the cases of chronic liver disease. Regarding the average school achievement, there was statistically significant difference between the affected (9.38%) and the non affected cases (61.11%) ($P < 0.05$). And in the below average school achievement there was statistically significant difference between the affected (90.62%) and the non affected cases (38.89%).

Table (13) shows the school absence in cases of chronic liver disease compared to control. The cases with no absence were 16% while control were 68% ($P < 0.01$). Regarding the absence less than once per month, the cases were 48% while control were 20% ($P < 0.01$), and in school absence more than once per month, the cases were 36% while control were 12%, ($P < 0.01$).

Table (14) shows the school failure in cases of chronic liver disease compared to control. Regarding the history of previous school failure there was statistically significant difference between cases of chronic liver disease (30%) and control (8%) ($P < 0.05$). While as regard the children with no previous failure at school, there was statistically significant difference between cases of chronic liver disease (70%) and control (92%) ($P < 0.05$).

Table (15) show peer relationship in cases of chronic liver disease compared to control. The percentage of the children who are playing with their peers were significantly higher in control than in the cases of

chronic liver disease ($P < 0.01$), however, the percentage of the children who are refusing to play with their peers and quarreling with them were significantly higher in the cases of chronic liver disease than in control ($P < 0.01$).

Table (16) and Fig. (5) show the relation between the stigma of illness and the school achievement in patients with chronic liver disease. Stigmatized cases represents 66% of the cases of chronic liver disease. Regarding the average school achievement, there was statistically significant difference between the higher percentage not stigmatized than stigmatized cases ($P < 0.05$) and in the below average school achievement, there was statistically significant difference between higher percentage stigmatized than not stigmatized cases ($P < 0.05$).

Table (1) : Some sociomedical variables of cases of chronic liver disease and control.

Socio medical variables	Case			Control		
	Range	$\bar{X}$	± SD	Range	$\bar{X}$	± SD
Age of the sample (yr)	(7-14 y.)	12.42	1.754	(8-14 y.)	12.02	2.128
Age at diagnosis (yr)	(6-12 y.)	8.04	2.032	-	-	-
Socioeconomic state	(3-6)	4.06	0.913	(3-6)	4.24	0.92

Male/female ratio of cases 14/11.

Male/female ratio of control 13/12.

Table (2) : The sociomedical variables of cases of chronic liver disease compared to control.

Sociomedical variables	Case		Control		t	P
	$\bar{X}$	± SD	$\bar{X}$	± SD		
Age of the sample	12.42	1.75	12.02	2.128	0.816	>0.05
Socioeconomic state	4.06	0.91	4.24	0.92	0.80	>0.05

$P > 0.05$ = Non significant.

$P < 0.05$ = Significant.

$P < 0.01$ = Highly significant.

Table (3) : School achievement in cases of chronic liver disease compared to control.

School achievement	Case (n = 50)		Control (n = 25)		Total
	No.	%	No.	%	
Average	14	28	22	88	36
Below average	36	72	3	12	39

X2 = 24.02 P < 0.01

Table (4) : Depression scale in cases of chronic liver disease compared to control

Depression scale	Case (n = 50)		Control (n = 25)		Total
	No.	%	No.	%	
No depression	14	28	23	92	37
Mild depression	23	46	2	8	25
Moderate depression	13	26	-	-	13
Severe depression	-	-	-	-	-

X2 = 27.53 P < 0.01

Table (5) : Distribution of the studied cases according to I.Q. score.

I.Q. score	No.	%	$\bar{X}$	± S.D
< 90	13	26	84.85	± 2.07
90 – 110	34	68	102.41	± 5.47
> 110	3	6	112.66	± 1.16
Total	50	100	98.46	± 9.67

Table (6) : Distribution of control according to I.Q score.

I.Q. score	No.	%	$\bar{X}$	± S.D
< 90	3	12	86.66	± 1.53
90 – 110	18	72	105.5	± 3.33
> 110	4	16	117	± 4.16
Total	25	100	105.08	± 8.74

Table (7) : I.Q score in cases of chronic liver disease compared to control

I.Q score	Case		Control		t	P
	No.	%	No.	%		
< 90	13	26	3	12	1.728	>0.05
90 – 110	34	68	18	72	2.527	<0.05
> 110	3	6	4	16	1.985	<0.05
Total	50	100	25	100	2.983	<0.05

Table (8) : School achievement in relation to I.Q score in cases of chronic liver disease :

School achievement / I.Q score	Average (n = 14)		Below average (n = 36)		Total (n = 50)		Z	P
	No.	%	No.	%	No.	%		
< 90	-	-	13	36.11	13	26	4.513	<0.01
90 – 110	11	78.57	23	63.89	34	68	1.082	>0.05
> 110	3	21.43	-	-	3	6	1.954	>0.05

Table (9) : School achievement in relation to depression scale in cases of chronic liver disease.

School achievement / Depr. Scale	Average (n = 14)		Below average (n = 36)		Total (n = 50)		Z	P
	No.	%	No.	%	No.	%		
No depression	8	57.14	6	16.67	14	28	2.771	<0.05
Mild depression	4	28.57	19	52.78	23	46	1.652	>0.05
Moderate depression	2	14.29	11	30.55	13	26	1.353	>0.05
Severe depression	-	-	-	-	-	-		

Table (10) : Illness characteristics :

Illness characteristics	No.	%
* Presence of cirrhosis	11	22
* Hospital admission		
a- No admission	16	32
b- I a month	25	50
c- > 1 per month	9	18

Table (11) : Relation between complication with cirrhosis and school achievement in patients with chronic liver disease.

School achievement	Cirrhotic pt. (n = 11)		Non cirrhotic pt. (n = 39)		Total (n = 50)	Z	P
	No.	%	No.	%			
Average	1	9.09	13	33.33	14	2.109	< 0.05
Blow average	10	90.91	26	66.67	36	2.109	< 0.05

Table (12) : Relation between impact of illness and school achievement in cases of chronic liver disease.

Impact of illness / School achievement	Affected (n = 32)		Not affected (n = 18)		Total (n = 50)	
	No.	%	No.	%	No.	%
Average	3	9.38	11	61.11	14	28
Below average	29	90.62	7	38.89	36	72

$X^2 = 13.95$ $P < 0.05$

Table (13) : School absence in cases of chronic liver disease compared to control.

School absence	Case (n = 50)		Control (n = 25)		Total
	No.	%	No.	%	
No absence	8	16	17	68	25
< 1 a month	24	48	5	20	29
> 1 + a month	18	36	3	12	21

$X^2 = 20.34$ $P < 0.01$

Table (14) : School failure in cases of chronic liver disease compared to control.

School failure	Case (n = 50)		Control (n = 25)		Z	P
	No.	%	No.	%		
Previous failure at school	15	30	2	8	2.603	< 0.05
No failure	35	70	23	92	2.601	< 0.05

Table (15) : Peer relationship in cases of chronic liver disease compared to control.

Peer relationship	Case (n = 50		Control (n = 25)		Total
	No.	%	No.	%	
Playing with them	12	24	22	88	34
Refusing to play	16	32	2	8	18
Quarreling with them	22	44	1	4	23

$X^2 = 27.69$ $P < 0.01$

Table (16) : Relation between stigma of illness and school achievement in patients with chronic liver disease.

Stigma of Illness / School Achievement	Stigmatized (n = 33)		Not stigmatized (n = 17)		Total (n =50)	Z	P
	No.	%	No.	%			
Average	6	18.18	8	47.06	14	2.087	< 0.05
Below average	27	81.82	9	52.94	36	2.086	< 0.05

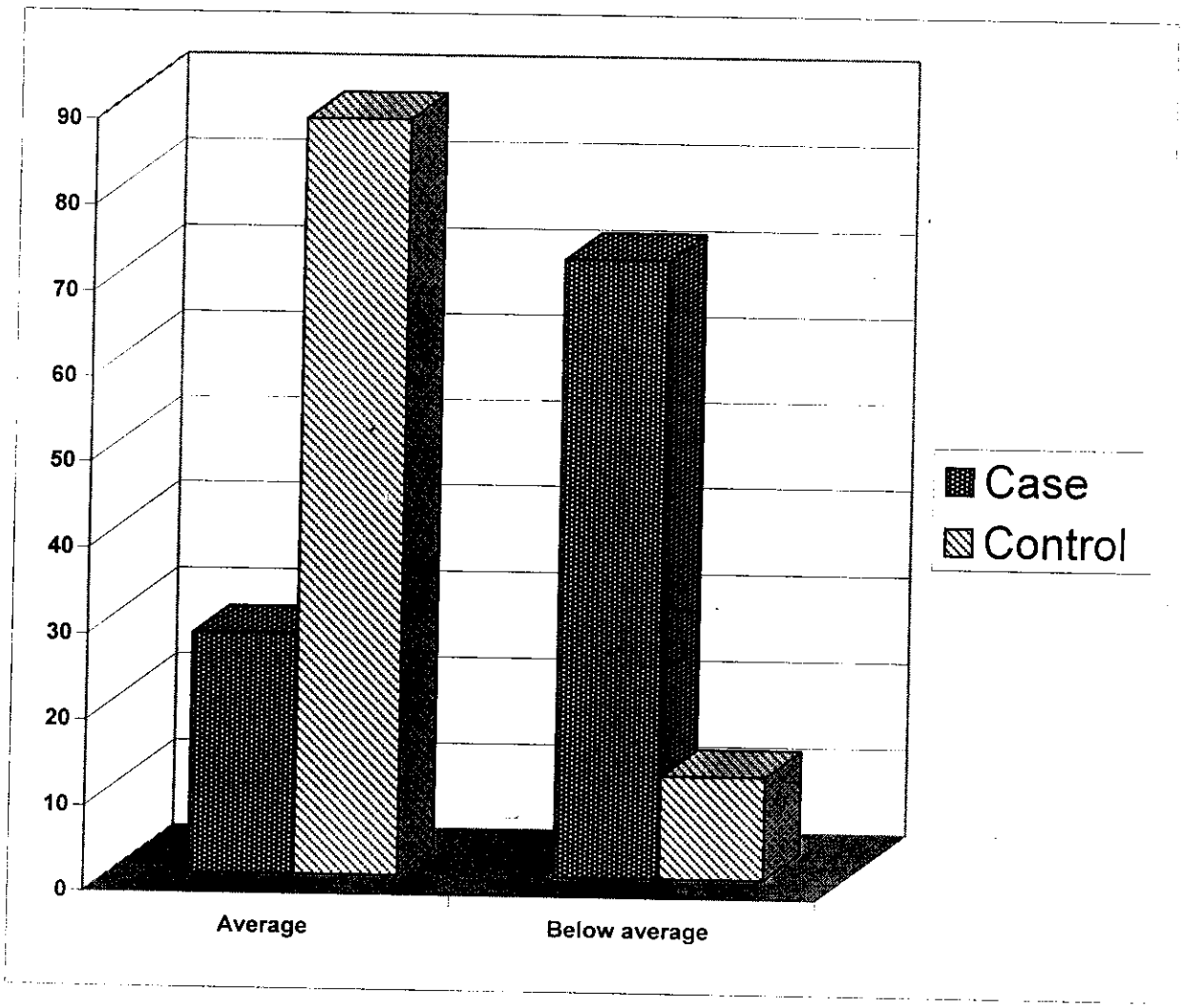

Fig. (1) : School achievement in cases of chronic liver disease compared to control.

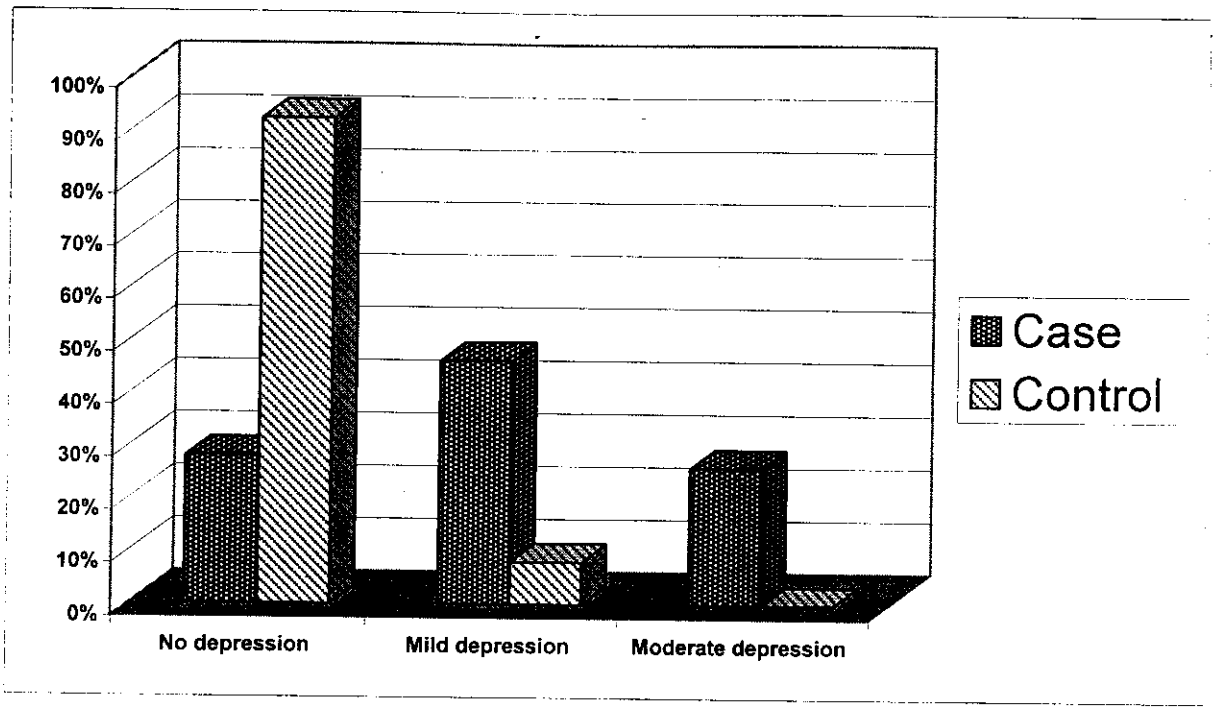

Fig. (2) : Depression scale in cases of chronic liver disease compared to control

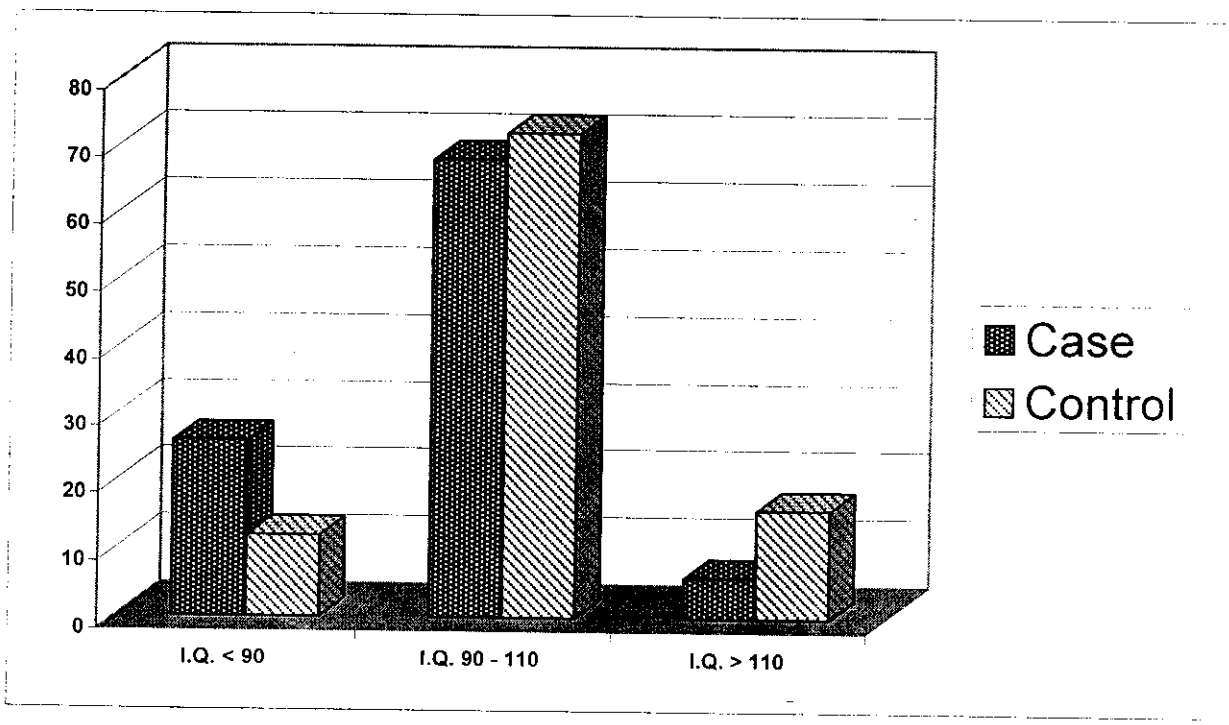

Fig. (3) : IQ score in cases of chronic liver disease compared to control

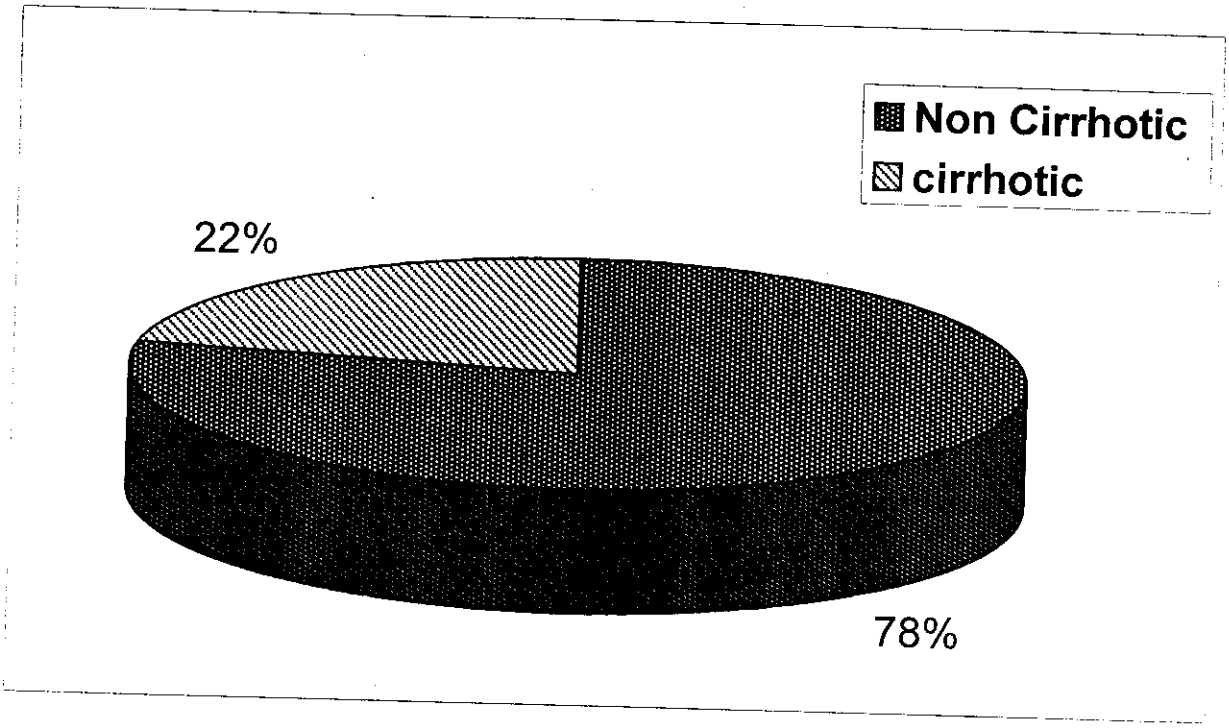

Fig. (4) : Distribution of the patients with chronic liver disease as regard complication with cirrhosis

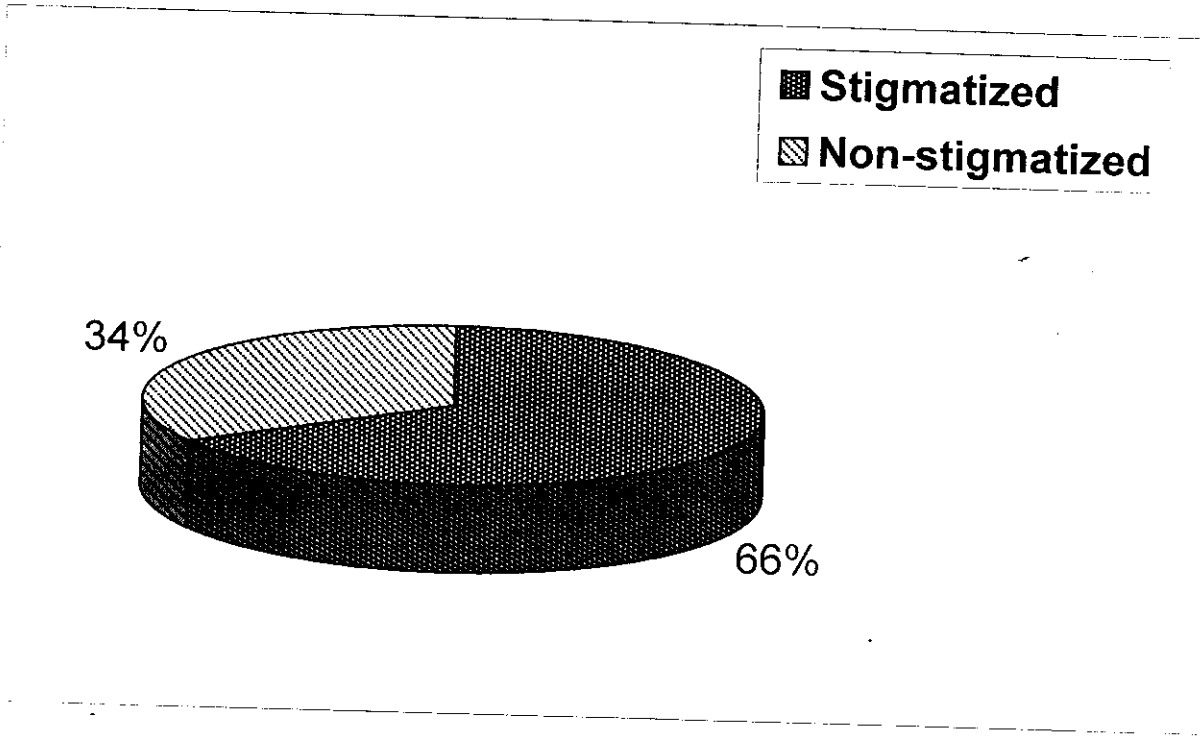

Fig. (5) : Distribution of the patients with chronic liver disease as regard stigma of illness.