

## Awareness and Attitude Regarding Cirrhosis of Liver among Arts and Science College Students

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### Abstract

**Introduction:** Cirrhosis is a complication of many liver diseases characterized by abnormal structure and function of the liver. The diseases that lead to cirrhosis do so because they injure and kill liver cells, after which the inflammation and repair that is associated with the dying liver cells cause scar tissue to form. The liver cells that do not die multiply in an attempt to replace the cells that have died. This results in clusters of newly formed liver cells (regenerative nodules) within the scar tissue. **Objective of the study:** To assess the existing awareness and attitude regarding cirrhosis of liver among arts and science college students. **Methods:** The research design adopted for this study was Non-experimental descriptive correlation design, with the sample size of 40 students studying in Padmashree institute of management and sciences, Bengaluru. The sampling technique used was probability simple random sampling technique. The tool used were section - A Socio-demographic Performa of the arts and science college students, section - B structured knowledge questionnaire regarding cirrhosis of liver and Section - C Likert's attitude scale regarding cirrhosis of liver. Data was analyzed by using Descriptive and inferential statistics. **Results:** The sample of 40 was assessed regarding their awareness and attitude regarding cirrhosis of liver, in awareness majority of the students had inadequate awareness 22 (55%). Regarding the attitude level, 19 (47.5%) had neutral attitude. **Conclusion:** The results reveal that maximum number 22 (55%) of them were having inadequate awareness regarding cirrhosis of liver, 18 (45%) of them have moderate adequate awareness regarding cirrhosis of liver and none of them have adequate awareness regarding cirrhosis of liver. Among total 40 majority 19 (47.5%) have neutral attitude (50-75), 15 (37.5%) have favorable attitude (>75) and only 6 (15%) have unfavorable attitude (<50) regarding Cirrhosis of liver.

**Keywords:** Awareness; Attitude; Cirrhosis of liver

### Introduction

Cirrhosis is the seventh leading cause of death by disease, killing about 25,000 people each year globally. Also, the cost of cirrhosis of liver in terms of human suffering, hospital costs, and lost productivity is high, majority of the patients land up in hospitalization with one or the other complications such as esophageal varices, hepatic

encephalopathy, portal hypertension, bleeding and kidney disorders [1]. WHO estimates that there are 140 million people with alcoholism worldwide. WHO's Global Alcohol database (1996) has been used to estimate the worldwide patterns of alcohol consumption and allow comparisons of alcohol-related morbidity and mortality. The burden of alcohol-related disease is the highest in the developed world as well as in developing regions, where it may account for as much as 9.2% of all disability-adjusted life years [2]. Although several factors have been implicated in the aetiology of cirrhosis, alcohol consumption is considered the major causative factors. Countries with the highest incidence of cirrhosis have the greatest per capita consumption of alcohol. Cirrhosis is the 10<sup>th</sup> leading cause of death among young and middle-age adults. Approximately 10,000 to 24,000 deaths from cirrhosis may be attributable to alcohol consumption each year, according to the National Institutes of Health [3].

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*Aims of the study*

To assess the existing awareness and attitude regarding cirrhosis of liver among arts and science college students.

**Material and Methods***Setting*

The study was conducted in Padmashree Institute of management and sciences, Bengaluru.

*Population*

The target population of the study was comprised of all students studying in Padmashree Institute of management and sciences, Bengaluru.

*Criteria for sample selection**Inclusion criteria:*

It includes the drivers who:

1. Students age between 18-25 years, male students.
2. Students who are willing to participate in the study.
3. Students who can speak English.
4. Students who are available at the time of data collection.

*Exclusion criteria:*

It excludes the:

1. Students who have undergone teaching programme on cirrhosis of liver.
2. Students whose family members have experienced cirrhosis of liver.

*Sampling technique*

Simple random sampling technique by using lottery method was used to select the sample.

*Description of tools*

The tools consist of the following sections.

*Section A:* Background variables are age in years, religion, course of study, father's occupation, monthly income, place of residence, have you heard about cirrhosis of liver, if yes specify sources of information.

*Section B:* Structured knowledge questionnaire was used to assess awareness regarding cirrhosis of liver among arts and science college students.

*Scoring Interpretation*

Scoring key was prepared for section B, score "1" was awarded to correct response and "0" for wrong response in all items. Thus a total score of 28 were allotted to interpret the level of knowledge of drivers, the score were categorized as,

- a) <50% - Inadequate knowledge
- b) 50-75% - Moderate knowledge
- c) >75% - Adequate knowledge

*Section C:* Likert attitude scale was used to assess attitude of arts and science college students on cirrhosis of liver.

*Scoring Interpretation*

In section C, for positive questions score of 3 for agree, score of 2 for uncertain agree, 1 for disagree. For negative question 3 for disagree, 2 for uncertain agree, 1 for agree. Thus total score of 36 were allotted. To interpret the level of attitude of driver, the score were categorized as:

- a) <50% - Unfavorable attitude
- b) 50-75% - Neutral attitude
- c) >75% - Favorable attitude

**Results**

**Table 1:** Description of demographic variables among arts and science college students

S. no.	Demographic characteristics	Categories	Frequency	Percentage
1.	Age in years	Below 20 years	12	30
		21-25 years	22	55
		Above 25 years	6	15
2.	Religion	Hindu	37	92.5
		Christian	-	-
		Muslim	3	7.5
		Others	-	-

3.	Course of study	Undergraduate	17	42.5
		Postgraduate	23	57.5
4.	Father's occupation	Agriculture/business /selfemployee	17	42.5
		Govt.employee	5	12.5
		Private employee	12	30
		Daily wages	6	15
5.	Family monthly income in rupees	< 10,000	6	15
		10,001-15,000	9	22.5
		15,001-20,000	17	42.5
		20,001-25,000	4	10
		Above 25,000	4	10
6.	Place of residence	Urban	14	35
		Semiurban	10	25
		Rural	16	40
7.	Have you heard about cirrhosis of liver?	Yes	4	10
		No	36	90
8.	If yes, specify sources of information	Relatives	-	-
		Magazine	-	-
		Newspaper	-	-
		Media	4	10

**Table 2:** Distribution of arts and science college students according to the level of awareness regarding cirrhosis of liver.

S. no	Level of awareness	Frequency	Percentage
1	Inadequate (<50%)	22	55
2	Moderately adequate awareness (50-75%)	18	45
3	Adequate (>75%)	-	-
	Over all	40	100

**Table 3:** Range mean and SD of knowledge regarding Cirrhosis of liver among arts and science college students.

S. no.	Aspects of knowledge	Max score	Knowledge			
			Range	Mean	SD	Mean %
1.	Awareness regarding general information about Cirrhosis of liver	3	0-3	1.925	0.77	41.67
2.	Awareness regarding types and causes of Cirrhosis of liver	4	0-3	1.85	1.051	46.25
3.	Awareness regarding sign and symptoms and diagnostic evaluation of Cirrhosis of liver	6	0-5	2.425	1.64	40.41
4.	Awareness regarding management of Cirrhosis of liver	9	0-5	3.4	1.343	37.78
5.	Awareness regarding prevention of Cirrhosis of liver	6	0-6	2.575	1.216	42.92
	Over all	28	3-18	12.55	6.02	44.82

**Table 4:** Distribution of arts and science college students according to level of attitude regarding Cirrhosis of liver.

S. No.	Level of attitude	Frequency	Percentage
1	Unfavorable attitude(<50)	6	15
2	Neutral attitude (50-75)	19	47.5
3	Favorable attitude (>75)	15	37.5
	Over all	40	100

**Table 5:** Range mean and SD of attitude regarding Cirrhosis of liver among arts and science college students

n=40

S. no.	Attitude	Max score	Range	Mean	SD	Mean %
1.	Over all attitude	36	21-33	25.28	4.94	70.22

**Table 6:** Correlation between Awareness and attitude regarding Cirrhosis of liver among arts and science college students

n = 40

S. no	Variables	r	Attitude	p-value
1	Awareness	0.54**		p<0.001

Note: \*\*-denotes significant at p&lt;0.001.

**Table 7:** Outcomes of Chi-square analyses for association between awareness regarding cirrhosis of liver of arts and science college students with their demographic variables.

n = 40

S. no	Demographic characteristics	Categories	Sample (n=40)		Level of awareness				Chi-square value	p-value
			F	%	Inadequate		Moderate & adequate			
					F	%	F	%		
1.	Age in years	Below 20 years	12	30	4	18.18	8	44.44	3.8812 df=2, NS	p<0.05
		21-25 years	22	55	15	68.18	7	38.88		
		Above 25 years	6	15	3	13.63	3	16.66		
2.	Religion	Hindu	37	92.5	22	95.65	15	88.23	0.7751, df=3, NS	p<0.05
		Christian	-	-	-	-	-	-		
		Muslim	3	7.5	1	4.34	2	11.76		
		Others	-	-	-	-	-	-		
3.	Course of study	Under graduate	17	42.5	7	31.81	10	55.55	2.2827, df=1, NS	p<0.05
		Post graduate	23	57.5	15	68.18	8	44.44		
4.	Father's occupation	Agriculture/ Bussinessman/self employee	17	42.5	10	47.61	7	36.84	3.2375 df=3, NS	p<0.05
		Govt. employee	5	12.5	4	19.04	1	5.26		
		Private employee	12	30	5	23.80	7	36.84		
		Daily wages	6	15	2	9.52	4	21.05		
5.	Family monthly income	< 10,000	6	15	2	9.52	4	21.05	3.4118 df=4, NS	p<0.05
		10,001-15,000	9	22.5	7	33.33	2	10.52		
		15,001-20,000	17	42.5	8	38.79	9	47.36		
		20,001-25,000	4	10	2	9.52	2	10.52		
		Above 25,000	4	10	2	9.52	2	10.52		
6.	Place of residence	Urban	14	35	8	34.78	6	35.29	0.3946, df=2, NS	p<0.05
		Semi urban	10	25	5	21.73	5	29.41		
		Rural	16	40	10	43.47	6	35.29		
7.	Have you heard about Cirrhosis of liver?	Yes	4	10	4	18.18	-	-	3.63, df=1, NS	p<0.05
		No	36	90	18	81.88	18	100		
8.	If yes, specify sources (n=4)	Relative	-	-	-	-	-	-		
		Magazine	-	-	-	-	-	-		
		Newspaper	-	-	-	-	-	-		
		Media	4	100	-	-	4	100		

Note: S-significant (p&lt;0.05), NS-Not significant (p&gt;0.05).

**Table 8:** Outcomes of Chi-square analysis for the association between attitude regarding cirrhosis liver with selected demographic variables of arts and science students.

S. no	Demographic characteristics	Categories	Sample (n=40)	Level of Attitude				Chi-square value	p-value	
				Inadequate		Moderate & adequate				
				F	%	F	%			
1.	Age in years	Below 20 years	12	30	3	50	9	26.47	1.5567 df=2, NS	p<0.05
		21-25 years	22	55	2	33.33	20	58.82		
		Above 25 years	6	15	1	16.67	5	14.70		
2.	Religion	Hindu	37	92.5	5	83.33	32	94.12	0.855, df=1, NS	p<0.05
		Christian	-	-	-	-	-	-		
		Muslim	3	7.5	1	16.67	2	5.88		
		Others	-	-	-	-	-	-		
3.	Course of study	Under graduate	17	42.5	5	83.33	12	35.29	4.8162, df=1, NS	p<0.05
		Post graduate	23	57.5	1	16.67	22	64.71		
4.	Father's occupation	Agriculture/ Businessman/self employee	17	42.5	2	33.33	15	44.12	2.2376 df=3, NS	p<0.05
		Govt. employee	5	12.5	1	16.67	4	14.71		
		Private employee	12	30	1	16.67	11	29.41		
		Daily wages	6	15	2	33.33	4	11.76		
5.	Family monthly income	< 10,000	6	15	1	16.67	5	14.71	0.8868, df=4, NS	p<0.05
		10,001-15,000	9	22.5	1	16.67	8	23.53		
		15,001-20,000	17	42.5	2	33.33	15	38.24		
		20,001-25,000	4	10	1	16.67	3	8.82		
		Above 25,000	4	10	1	16.67	3	8.82		
6.	Place of residence	Urban	14	35	1	16.67	13	38.24	6.540, df=2, NS	p<0.05
		Semi urban	10	25	4	66.67	6	17.65		
		Rural	16	40	1	16.67	15	44.12		
7.	Have you heard about Cirrhosis of liver?	Yes	4	10	1	16.67	3	8.82	0.3486, df=1, NS	p<0.05
		No	36	90	5	83.33	31	91.18		
8.	If yes, specify sources (n=4)	Relative	-	-	-	-	-	-		
		Magazine	-	-	-	-	-	-		
		Newspaper	-	-	-	-	-	-		
		Media	4	100	-	-	4	100		

Note: S-significant (p<0.05); NS-Not significant (p>0.05).

## Discussion

In the present study it is evidence that regarding age wise distribution shows that the all majority of the subject 22 (55%) belongs to 21-25 years, with reference to religion majority of the subjects 37 (92.5%) belongs to Hindu religion. In context with course of study majority 23 (57.5%) are studying postgraduate course, with regards to the father's occupation majority 17 (42.5%) of the subjects have agriculture/business/selfemployee. In regards to family income per month majority 17 (42.5%) of the subject have family monthly income of Rs. 15,001-20,000. With regards to place of residence majority 16 (40%) are living in the rural area. Regarding whether they have heard of cirrhosis of liver majority 36 (90%) have not heard of cirrhosis of liver.

Similar study was conducted (Dae Won Jun et al.) A study of the awareness of chronic liver diseases among Korean adults. A survey of chronic liver disease involving a total of 2,794 respondents was conducted. The respondents included patients and their guardians, visitors for health check-ups, and online pollees who completed a questionnaire on the awareness of fatty liver or chronic liver disease. Of the entire cohort, 854 (39.7%) said they have had or still have fatty liver or an elevated transaminase level (>40 IU/L), but only 23.4% of the respondents had visited a hospital. It was found that 35% of healthy subjects and 45% of patients and their guardians misunderstood hepatitis B as the hereditary disease. Furthermore, 26% of the subjects responded that patients with inactive hepatitis B do not require regular follow-up. While

17.9% answered that it is not too late to test for liver cancer when symptoms arise, 38.8% believed that liver transplant in liver cancer patients has a low success rate and is thus not recommended. The study concludes that despite the inundation of information and widespread media advertising, the awareness of chronic liver disease is unsatisfactory among Korean adults [4].

### Conclusion

The result of the current study confirmed that students of arts and Science College had inadequate awareness regarding cirrhosis of liver with neutral attitude; there was a positive correlation between awareness and attitude. The study recommend that the students need counseling, education and awareness programme, interactive learning sessions, self instructional module, etc.to disseminate the awareness and attitude regarding cirrhosis of liver.

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*Conflict of Interest:* None Declared

*Ethical permission:* obtained from institution ethical committee and patient consent was obtained

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