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### RESEARCH ARTICLE

#### “AN EXPLORATION OF THE POTENTIAL KNOWLEDGE AND ATTITUDE TOWARDS LIVER CIRRHOSIS DUE TO ALCOHOLISM AMONG COMMERCIALS AUTO DRIVERS IN BENGALURU SOUTH REGION THROUGH VAT PROGRAM - A PRE-EXPERIMENTAL APPROACH”

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#### Abstract

**Introduction:** In recent years, liver disease has been responsible for about 2 million fatalities worldwide, with 1 million of such deaths resulting from cirrhosis complications and 1 million each from viral hepatitis and hepatocellular cancer. The National Institutes of Health estimates that alcohol use may be accountable for 10,000 to 24,000 deaths from cirrhosis per year. According to the most recent WHO data, 184,193 people in India died from liver disease in 2018, accounting for 3.0% of all fatalities. The issue of whether or not commercial car drivers are aware of liver cirrhosis brought on by alcoholism still exists because there is a shortage of awareness on the condition.

**Objectives:** This study was conducted to determine the knowledge and attitude toward liver cirrhosis due to alcoholism.

**Methodology:** A pre-experimental study with one group pre-test and post-test design was undertaken to conduct the study from 20 August to 30 October using a simple random sampling technique. The study involved 60 commercial vehicle drivers who completed a standardized knowledge assessment and an attitude scale. Pen and paper were used to collect the data, which was then exported for additional analysis into SPSS version 20.0. The descriptive statistics were presented with mean  $\pm$  standard deviation, frequency and percentage. The data were analyzed using a paired t-test. The chi-square analysis was used to check the association.

**Results:** The study revealed that 46 drivers (76.7%) had inadequate knowledge, 14 drivers (23.3%) had moderate knowledge whereas none of them had adequate level of knowledge towards liver cirrhosis. And regarding assessment of attitude, data findings showed that that 40 (66.7%) of the participant had unfavorable attitude, 20 (33.3%) of them had neutral favorable attitude whereas none of them had favorable attitude regarding cirrhosis of liver. The paired “t” test was carried out and it was found out invariably significant at  $p < 0.05$  level in both knowledge and attitude level with demographic variables.

**Conclusion:** Our data suggest that commercial auto drivers have significantly less knowledge regarding liver cirrhosis due to alcohol

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consumption and also, they are showing a poor attitude towards liver cirrhosis as a major problem. So, it is very important to make sure that the commercial drivers including auto drivers should know about the health hazards related to alcoholism and also to reduce road accidents and unwanted behaviors. Our findings will support the stakeholders, auto rikshaw union leaders, and government policymakers to make a significant decision to improve public knowledge related to alcohol-related health problems.

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### **Introduction:-**

The liver is essential in controlling biological functions. Its primary responsibilities include generating vital nutrients, eliminating harmful toxins from our body, and purifying our blood. When our liver is damaged, cirrhosis of the liver arises. It is a late stage of liver scarring (fibrosis) brought on by many liver diseases and conditions, including hepatitis and chronic alcohol consumption, etc., which ultimately prevents the liver from functioning properly.<sup>1</sup>

Worldwide, cirrhosis of the liver is the sixth most common cause of disease-related death, responsible for about 25,000 fatalities annually.<sup>2</sup> According to WHO estimates, 140 million people are suffering from alcoholism. The burden of alcohol-related disease is greatest in both developed and developing countries, where it can account for up to 9.2% of all disability-adjusted life years.<sup>3</sup>

Alcohol use is thought to be the primary cause of cirrhosis, despite the fact that other factors have also been linked to its pathogenesis. Among young and middle-aged adults, cirrhosis is the 10th most prevalent cause of mortality. The National Institutes of Health estimates that alcohol use may be responsible for 10,000 to 24,000 deaths from cirrhosis each year.<sup>4</sup>

Cirrhosis of the liver appears to affect some people more than others. Alcohol-induced liver damage kills twice as many males as women. Most patients are in the 40 to 60 age range. In the United States, cirrhosis and chronic liver diseases cost the lives of more than 27,000 people annually.<sup>5</sup>

Although the reported alcohol consumption per capita has declined since 1980 in the majority of wealthy nations, it has steadily increased in developing nations, especially India, where it has increased alarmingly. Adult alcohol consumption in India increased by 106.7% per capita between 1970–1972 and 1994–1996.<sup>6</sup> Following the survey, it was found that patients with liver cirrhosis drank more than 200 ml of alcohol each day for an average of more than 14 years.<sup>7</sup> In an Indian hospital, a prospective analysis on the profile of alcoholic liver disease revealed that 52% of persons 18 years of age and older were current, habitual drinkers. There were 13% of adults who currently drink occasionally, 14,406 people died from alcoholic liver disease, and 23,199 people died from alcoholic liver disease overall, excluding accidents and homicides.<sup>8</sup>

The most common cause of the development of liver cirrhosis is thought to be high alcohol consumption. Numerous researches have been done, and it has been proven that drinking alcohol and developing liver cirrhosis are significantly related. A study was conducted on alcoholic cirrhosis in south Asian men where it was revealed that out of the 38% of incidences of cirrhosis, 64.5% were white, 29% south Asian, 4.7% were afro-Caribbean, and 2.1% were other cases. Cirrhosis was most frequently caused by alcohol (60.9%).

Therefore, this study was planned to assess the knowledge and attitude of auto drivers regarding liver cirrhosis in Bangalore south region, Karnataka, India. The finding of the study will help the community nurses to have a better health education protocol to educate the drivers regarding liver cirrhosis and also this research will serve as a valuable reference material for future investigations.

**Objectives of the study:-**

The major goals of the current study are to determine and correlate the pre and post-test knowledge and attitude levels by implementing video assisted teaching (VAT) programme, as well as to explore the association between the pre-test knowledge and attitude levels and demographic characteristics.

**Methods:-****Study design and study population**

A pre-experimental study with one group pre-test and post-test design was undertaken for the study and the study was done on auto rikshaw drivers from Beedi workers colony, Kengeri, Bengaluru south region in the year 2016-2017. A total of 60 auto-rickshaw drivers who consumes alcohol has participated in the study.

**Study Setting**

Bangalore (also known as Bengaluru) is the capital of Karnataka state, India. As of January 2019, Bangalore has 1.94 lacs auto rickshaw, out of which more than 25,000 are two-stroke rickshaws. The data was collected in the year 2016-2017 on auto rikshaw drivers from Bangalore's south region (mainly Beedi Workers colony kengeri) and a total of 60 auto rikshaw drivers who consumes alcohol participated in the study.

**Sample size and sampling procedures**

60 auto rikshaw drivers were randomly selected by using a simple random sampling technique using the lottery method. The data was collected in person from the beedi worker's colony and drivers who were willing to give informed consent were included in the study. Participants who were busy due to their busy schedules and did not give informed consent were excluded from the study.

**Tool for data collection and data collection instrument**

The data collection instrument was developed by the investigator and the validity and reliability of the tools was done with the help of experts in the field of nursing and bio-statistician. the data collection instrument was divided into three sections. Section a included the demographic variables like age, religion, marital status, educational status, monthly income, working experiences, how long you have been consuming alcohol, how many times do you consume alcohol per day, how many times you consume alcohol in a week, do you hear about cirrhosis of liver and the sources of information. Section b included the structured knowledge questionnaire regarding general information, causes, signs, diagnostic tests, management and prevention of liver cirrhosis and the section c included Likert's attitude scale and the response included (Agree, Uncertain, disagree). further for the scoring interpretation, 1 was awarded to correct response and 0 for wrong response in all items for the section B and a total score of 28 were allotted to interpret the level of knowledge and for the Likert's attitude scale, the positive questions score of 3 is awarded for agree, score of 2 for uncertain agree and 1 for disagree. Further for negative question 3 is awarded for disagree, 2 for uncertain agree and 1 for agree. Thus, total score of 36 were allotted. In order to establish reliability of the tool, the split half method was used. The calculated "r" value was 0.81 for knowledge and 0.89 for the attitude and the developed tool was found to be reliable.

**Pilot study**

Pilot study was conducted on 10% of the sample size of the main study at Byrohalli rural community Kengeri which was not included in the main study for the clarity of language, acceptability, validity and completeness of the questionnaire.

**Data collection technique**

Formal permission was obtained from the Union Leader of auto-rickshaw driver Kengeri, Bengaluru. The researcher himself collected the data. and the data were collected from 20 august 2017 to 30 October 2017. The auto drivers were requested to respond to the questionnaire through pen and paper with consent form appended to it. The instructions were given to the auto drivers on the front page and also orally not to use reference material and not to discuss with their friends to find the correct answer. A reliable questionnaire was adopted and we selected the samples by simple random sampling technique using the lottery method. The tools were divided into three sections. Section A includes demographic variables, section B includes a structured knowledge questionnaire and section C includes a Likert attitude scale.

**Data quality control**

Quality of data was assured by proper designing and pretesting of the questionnaire at Byrohalli rural community located far from the original test site on 10% of the total participants, to ensure that the questions are clear and can be understood by the respondents, and further questionnaires were refined based on the results of the pilot study.

**Data processing and analysis**

After the data collection, the data were exported from an excel sheet to statistical package for social sciences (SPSS) version 20.0 for analysis, and interpretation. The descriptive statistics were presented with mean  $\pm$  standard deviation, frequency, and percentage. The data were analyzed using a paired t-test. Further to check the association chi-square analysis was used.

**Results:-****Table 1:-** Description of socio demographic variables of drivers N = 60

SL No	Demographic variables	Frequency	Percentage
1	<b>Age in years</b>		
	a. 21-30 years	30	50.0
	b. 31-40 years	23	38.3
	c. 41-50 years	7	11.7
	d. 51-60 years	-	-
2	<b>Religion</b>		
	a. Hindu	-	-
	b. Christian	-	-
	c. Muslim	60	100
	d. Others	-	-
3	<b>Marital status</b>		
	a. Single	14	23.3
	b. Married	42	70.0
	c. Divorced	2	3.3
	d. Widower	2	3.3
4	<b>Educational background</b>		
	a. Primary education	32	53.3
	b. Secondary education	18	30.0
	c. Higher secondary	9	15.0
	d. Degree and above	1	1.7
5	<b>Income (Rs/month)</b>		
	a. 5000-10000	46	76.7
	b. 10001-15000	14	23.3
	c. 15001-20000	-	-

A total of 60 auto drivers participated in this study. Out of the study participants, all are Muslims 60 (100%) and were in the age group of 21 to 30 years (50%). The majority 42 (70%) of them were married and had a primary education 32 (53.3%). Twenty-seven (45%) of the participants were having 3 to 4 years of experience of driving auto rickshaw, and 46 (76.7%) of the participant earn around 5000 to 10000 Rs in a month. With regards to alcoholism majority, 37 (61.7%) of them were consuming alcohol for 3 to 4 years and drink 1 time 32 (53.3%) a week. Further, participants 60 (100%) have never heard about cirrhosis of liver and they have no information regarding the disease.

	d. 20001 -25000	-	-
	e. Above 25000	-	-
6	<b>Working experience</b>		
	a. 1-3 years	10	16.7
	b. 3-4 years	27	45.0
	c. 4-5 years	21	35.0
	d. 5 and above	2	3.3
7	<b>How long have you been consuming alcohol?</b>		
	a. 1-2 year	19	31.7
	b. 3-4 years	37	61.7
	c. 5-6 years	4	6.7
	d. 7 and above	-	-
7.a	<b>How many times do you consume alcohol per day?</b>		
	a. 1 time	55	91.7
	b. 2 times	5	8.3
	c. 3 times	-	-
	d. 4 and more	-	-
7.b	<b>How many times in a week do you consume alcohol?</b>		
	a. 1 time	32	53.3
	b. 2 times	15	25.0
	c. 3 times	8	13.3
	d. 4 times	5	8.3
8	<b>Have heard about cirrhosis of liver?</b>		
	a. Yes	-	-
	b. No	60	100
8.a	<b>If yes, source of information</b>		
	a. Relatives	-	-
	b. Magazines	-	-
	c. Newspapers	-	-
	d. Media	-	-

**Figure 1:-** Percentage distribution regarding knowledge on cirrhosis of liver among drivers before and after administration of VAT program.

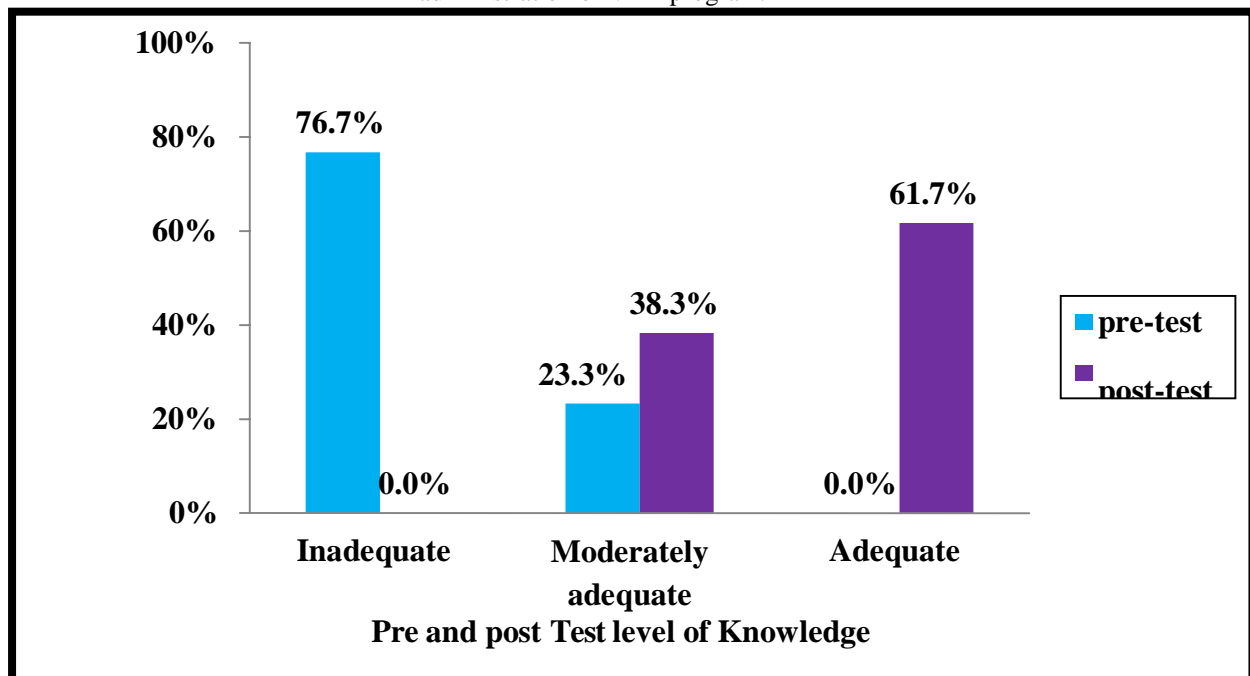


Figure1 depicts the Pre-test and post-test percentage of knowledge towards cirrhosis of liver among auto drivers. The result shows that in pre-test 46(76.7%) had inadequate knowledge, 14(23.3%) had moderate knowledge where none of the subjects has adequate knowledge. Whereas In posttest 23(38.3%) had moderate knowledge and 37(61.7%) had adequate knowledge, none of the subject has inadequate knowledge. It shows that after video assisted teaching the subjects knowledge has improved and the program is found to be effective.

**Figure 2:-** Percentage distribution regarding attitude on cirrhosis of liver among drivers before and after administration of VAT program.

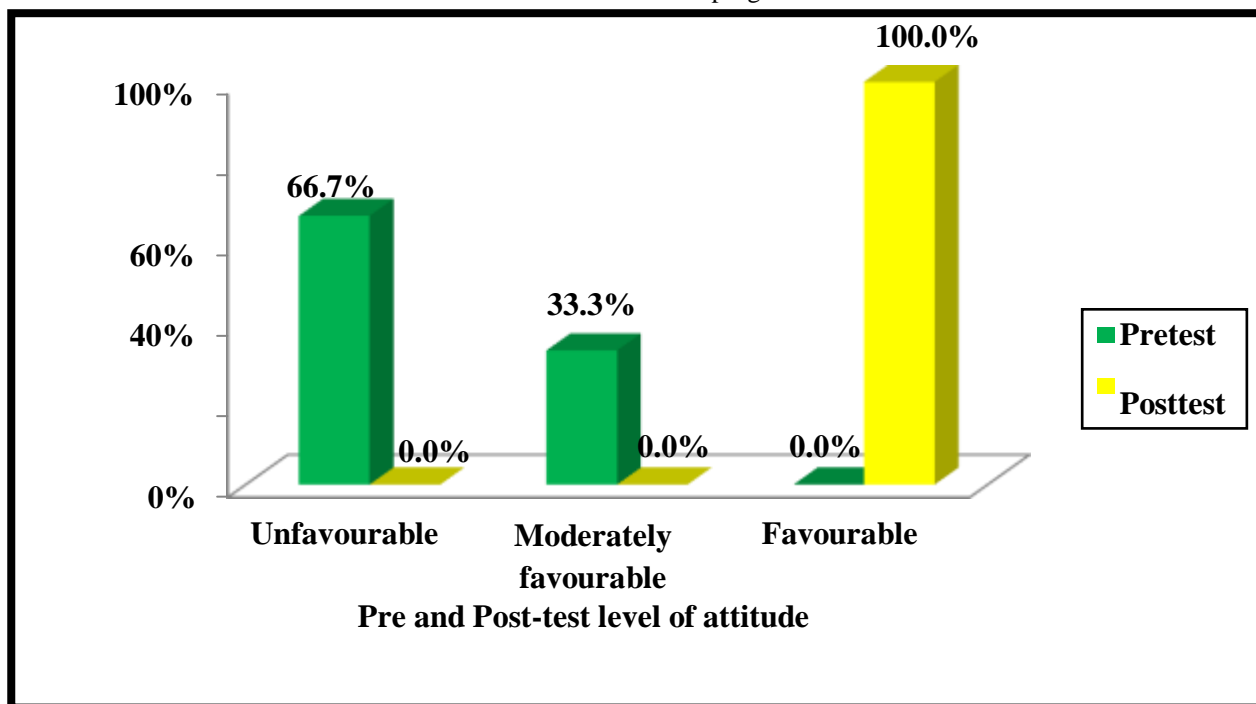


Figure 2 depicts the frequency and percentage distribution regarding attitude toward cirrhosis of liver among auto drivers. The result shows that in the pre-test, 40(66.7%) had unfavorable attitudes, 20(33.3%) had neutral attitudes, none of the subjects has favorable attitudes. Whereas in the posttest 60(100%) had favorable attitudes, none of the subjects has unfavorable, and neutral attitudes. It shows that after video-assisted teaching the subject's attitude has changed. It shows that after video assisted teaching the subjects attitude has changed and the program is found to be effective.

**Table 2: -** Paired “t” test analysis for the significance of pre and post-test attitude regarding cirrhosis of liver  
N = 60

Sl.no	Variable	Max score	Paired t-difference (Enhancement)			t-test value	P-value
			Mean	SD	Mean%		
1	Attitude	36	13.70	4.60	36.1	23.03 ***	p<0.001

Note: \*- Denotes significant (p<0.001) for df =59.

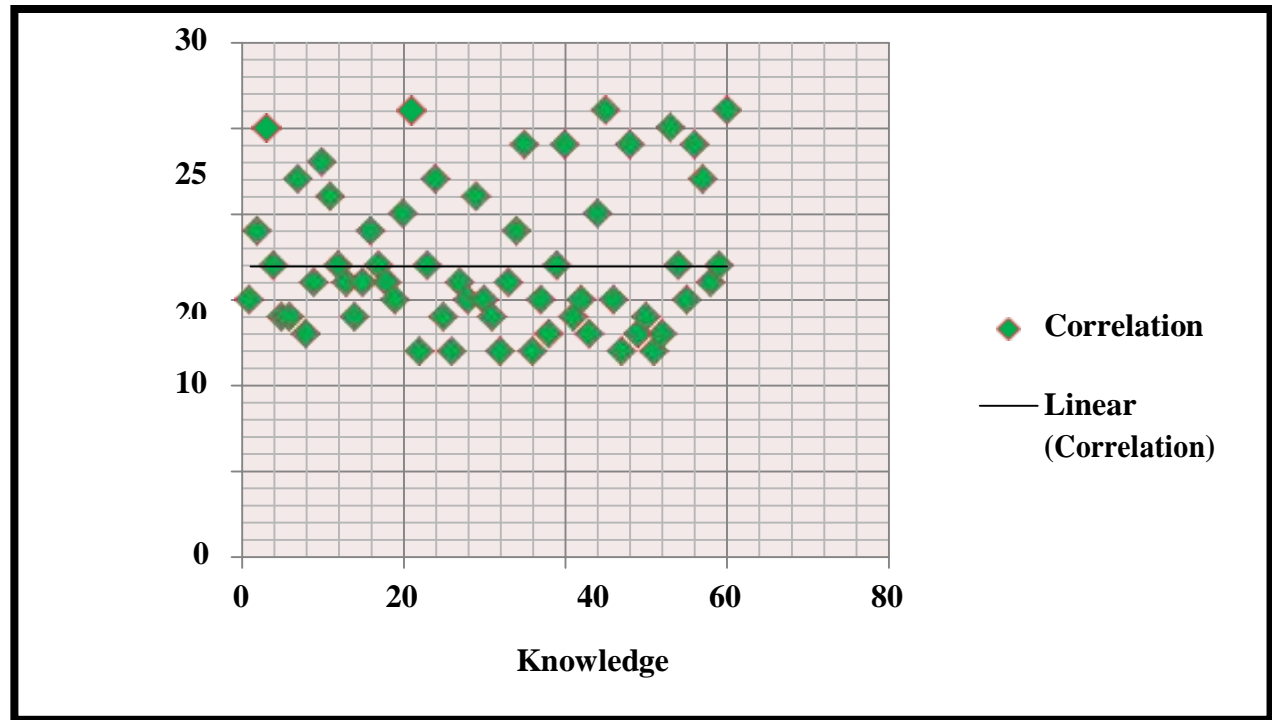
Paired “t” test was performed to determine the significance of pre- and post-test attitudes regarding cirrhosis of liver. The table shows the mean, standard deviation and mean score percentage of improvement in attitude regarding cirrhosis of liver among drivers and statistical significance where out of maximum score 36, mean score was found to be 13.7, with standard deviation of 4.6, mean score percentage of 36.1 and the paired “t” value was 23.03 at the level of P<0.001.

**Table 3:-** Correlation between knowledge and attitude regarding cirrhosis of liver among drivers before and after video assisted teaching.

Sl.no	Variables	Attitude	
		r	p-value

1	knowledge	0.102	P<0.05
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Table 3 depicts the correlation between knowledge and attitude regarding cirrhosis of liver and the results show that there was weak positive correlation between knowledge and attitude and calculated value is r = 0.102.



**Table 4:-** Association between pre-test knowledge regarding cirrhosis of liver with their selected demographic variables of drivers. N = 60

Sl.no	Demographic variables	Sample (n=60)		Level of knowledge				Chi-Square value	p-value
				≤ Median		>Median			
		F	%	F	%	F	%		
1	<b>Age in years</b>								
	a. 21-30 years	30	50.0	22	47.8	8	57.1	2.414, df=2, NS	P>0.05
	b. 31-40 years	23	38.3	17	37.0	6	42.9		
	c. 41-50 years	7	11.7	7	15.2	0	0		
	d. 51-60 years	-	-	-	-	-	-		
2	<b>Marital status</b>								
	a. Single	14	23.3	12	26.1	2	14.3	2.502, df=3, NS	p>0.05
	b. Married	42	70.0	30	65.2	12	85.7		
	c. Divorced	2	3.3	2	4.3	0	0		
	d. Widower	2	3.3	2	4.3	0	0		
3	<b>Educational background</b>								
	a. Primaryeducation	32	53.3	24	52.2	8	57.1	3.788, dF=3, NS	p>0.05
	b. Secondary education	18	30.0	15	32.6	3	21.4		
	c. Highersecondary	9	15.0	7	15.2	2	14.3		
	d. Degree andabove	1	1.7	0	0	1	7.1		
4	<b>Income (Rs/month)</b>								
	a. 5000-10000	46	76.7	37	80.4	9	64.3	1.55, df=1, NS	p>0.05
	b. 10001-15000	14	23.3	9	19.6	5	35.7		
	c. 15001-20000	-	-	-	-	-	-		

	d. 20001 -25000	-	-	-	-	-	-		
	e. Above 25000	-	-	-	-	-	-		
	<b>Working experience</b>								
5	a. 1-3 years	10	16.7	8	17.4	2	14.3	0.775, df=3, NS	p>0.05
	b. 3-4 years	27	45.0	20	43.5	7	50.0		
	c. 4-5 years	21	35.0	16	34.6	5	35.7		
	d. 6 and above	2	3.3	2	4.3	0	0		
	<b>How long have you been consuming alcohol?</b>								
6	a. 1-2 year	19	31.7	16	34.8	3	21.4	2.668, df=2, NS	p>0.05
	b. 3-4 years	37	61.7	26	56.5	11	78.6		
	c. 4-5 years	4	6.7	4	8.7	0	0		
	d. 6 and above	-	-	-	-	-	-		
	<b>How many times do you consume alcohol per day?</b>								
7	a. 1 time	55	91.7	42	91.3	13	92.9	0.034, df=1, NS	p>0.05
	b. 2 times	5	8.3	4	8.7	1	7.1		
	c. 3 times	-	-	-	-	-	-		
	d. 4 and more	-	-	-	-	-	-		
	<b>How many times in a week do you consume alcohol?</b>								
8	a. 1 time	32	53.3	22	47.8	10	71.4	2.516, df=3, NS	p>0.05
	b. 2 times	15	25.0	13	28.3	2	14.3		
	c. 3 times	8	13.3	7	15.2	1	7.1		
	d. 4 times	5	8.3	4	8.7	1	7.1		

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

Table 4 depicts the association between pre-test knowledge regarding cirrhosis of liver and selected demographic variables. The findings show that the majority 42 (70%) of the participants are married with the age group of 21 – 30 years (50%) and have a primary education 32 (53.3%). The majority 46 (76.7%) of the participants are having an income of 5000 to 10000 Rs/month and have a working experience of 3 to 4 years 27 (45%). Regarding consumption of alcohol 37 (61.7%) of the participants consumed alcohol for 3 to 4 years and had 1 time 55 (91.7) in a day and 1 time 32 (53.3) in a week. The result of the study shows that there was no significant association of knowledge score with any demographic variables.

**Table 5:-** Association between attitude regarding cirrhosis of liver with selected demographic variables of drivers  
N = 60

Sl.no	Demographic variables	Sample (n=60)		Level of attitude				Chi-Square value	p-value
				≤ Median		>Median			
		F	%	F	%	F	%		
1	<b>Age in years</b>								
	a) 21-30 years	30	50.0	21	52.5	9	45.0	0.457, df=2, NS	P<0.05
	b) 31-40 years	23	38.3	15	37.5	8	40.0		
	c) 41-50 years	7	11.7	4	10.0	3	15.0		
	d) 51-60 years	-	-	-	-	-	-		
2	<b>Marital status</b>								
	a) Single	14	23.3	10	25.0	4	20.0	1.50, df=3, NS	p>0.05
	b) Married	42	70.0	27	67.5	15	75.0		
	c) Divorced	2	3.3	1	2.5	1	5.0		
	d) Widower	2	3.3	2	5.0	0	0		
3	<b>Educational background</b>								
	a) Primary education	32	53.3	20	50.0	12	60.0	3.00, df=3, NS	p>0.05
	b) Secondary education	18	30.0	13	32.5	5	25.0		
	c) Higher secondary	9	15.0	7	17.5	2	10.0		
	d) Degree and above	1	1.7	0	0	1	5.0		
	<b>Income (Rs/month)</b>								
	a) 5000-10000	46	76.7	32	80.0	14	70.0		



4	b) 10001-15000	14	23.3	8	20.0	6	30.0	0.745, df=1, NS	p>0.05	
	c) 15001-20000	-	-	-	-	-	-			
	d) 20001 -25000	-	-	-	-	-	-			
	e) Above 25000	-	-	-	-	-	-			
5	<b>Working experience</b>								3.557 df=3, NS	p>0.05
	a) 1-3 years	10	16.7	9	22.5	1	5.0			
	b) 3-4 years	27	45.0	18	45.0	9	45.0			
	c) 4-5 years	21	35.0	12	30.0	9	45.0			
	d) 6 and above	2	3.3	1	2.5	1	5.0			
6	<b>How long have you been consuming alcohol?</b>								0.975, df=2, NS	p>0.05
	a) 1-2 year	19	31.7	14	35.0	5	25.0			
	b) 3-4 years	37	61.7	24	60.0	13	65.0			
	c) 4-5 years	4	6.7	2	5.0	2	10.0			
	d) 6 and above	-	-	-	-	-	-			
7	<b>How many times do you consume alcohol per day?</b>								0.109, df=1, NS	p>0.05
	a) 1 time	55	91.7	37	92.5	18	90.0			
	b) 2 times	5	8.3	3	7.5	2	10.0			
	c) 3 times	-	-	-	-	-	-			
	d) 4 and more	-	-	-	-	-	-			
8	<b>How many times in a week do you consume alcohol?</b>								2.516, df=3, NS	p>0.05
	a) 1 time	32	53.3	-	-	-	-			
	b) 2 times	15	25.0	-	-	-	-			
	c) 3 times	8	13.3	-	-	-	-			
	d) 4 times	5	8.3	-	-	-	-			

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

Table 5 depicts the association between pre-test knowledge regarding cirrhosis of liver and selected demographic variables. The findings show that the majority 42 (70%) of the participants are married with the age group of 21 – 30 years (50%) and have a primary education 32 (53.3%). The majority 46 (76.7%) of the participants are having an income of 5000 to 10000 Rs/month and have a working experience of 3 to 4 years 27 (45%). Regarding consumption of alcohol 37 (61.7%) of the participants consumed alcohol for 3 to 4 years and have 1 time 55 (91.7) in a day and 1 time 32 (53.3) in a week. The result of the study shows that there was no significant association found in attitude score with any demographic variables.

### Discussion:-

Alcohol use has been known to increase the risk of mortality. Between 1990 and 2010, the majority of alcohol-related deaths were caused by liver cirrhosis and injury. 2010 witnessed 1,500,000 alcohol-related deaths (319,500 female deaths and 1,180,500 male deaths) and 51,898,400 lost potential life years due to liver cirrhosis. This represents 2.8 percent of all fatalities and 3.0 percent of all years of life lost in 2010.<sup>10-11</sup>

The prevalence of alcohol intake among people is constantly evolving and cirrhosis of liver is still a major cause of death throughout the world despite many improvements and advances made in the treatment over the last 26 years. Our result shows that in the pre-test 46(76.7%) participants had inadequate knowledge, 14(23.3%) of them had moderate knowledge and none of the subjects had adequate knowledge. Whereas after the implementation of the VAT program the result shows that 23(38.3%) of the participants had moderate knowledge and 37(61.7%) had adequate knowledge, none of the subjects has inadequate knowledge. Similarly, the result also shows that in the pre-test, 40(66.7%) of the participants had unfavorable attitudes, 20(33.3%) had neutral attitudes, none of the subjects has favorable attitudes. Whereas in the posttest 60(100%) had favorable attitudes, none of the subjects has unfavorable attitude. It shows that after the implementation of video-assisted teaching the subject's knowledge attitude has changed regarding the perception of liver cirrhosis. To our knowledge currently, there were only a few research data available about the knowledge and attitude regarding commercial drivers regarding liver cirrhosis.

One of the major objectives of the study was to assess the pre-test knowledge and attitude score regarding cirrhosis of liver among drivers. and the result shows that 46 (76.7%) of auto-rickshaw drivers had inadequate knowledge, 14 (23.3%) had moderate knowledge whereas none of them had adequate knowledge. This finding is supported by a

survey study done in Korea regarding chronic liver disease involving a total of 2,794 respondents was conducted. The respondents included patients and their guardians, and visitors for health check-ups. It was found that 854 (39.7%) of the participants have had or still have fatty liver or elevated transaminase level ( $>40$  IU/L), but only 23.4% of them had visited the hospital. It was found that 35% of healthy subjects and 45% of patients and their guardians misunderstood hepatitis B as a 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.<sup>12</sup>

The other objectives of the study were to assess the post-test knowledge and attitude score regarding cirrhosis of liver among drivers. With regards to this it was found that 23 (38.3%) of drivers had moderate knowledge, 37 (61.7%) had adequate knowledge, whereas none of them had inadequate knowledge and 60 (100%) had favorable attitude whereas none of them had unfavorable attitude. Similar findings are also reported in a study done in at UK tertiary liver center. Fifty-two patients with liver cirrhosis were included. Sixty-two per cent were male. Participants completed a baseline questionnaire assessing their knowledge of the management and complications of cirrhosis. They then watched a tailored screencast discussing this condition. Knowledge was reassessed using a new copy of the original questionnaire after an interval of at least one month. Fifty-two patients achieved a median score of 25.0% before viewing the screencast. Thirty-five patients then completed a follow-up questionnaire after an interval period. The median questionnaire score in this group improved from 25.0% to 66.7%; an increase of 41.7% compared with baseline ( $p < 0.001$ ).<sup>13</sup>

In regards to the third objectives which was to evaluate the effectiveness of video assisted teaching on level of knowledge and attitude the result shows that the outcome of paired “t” test of knowledge and attitude score and statistical significance based on Paired “t” test. The “t” value was found to be 21.19 and 23.03 for knowledge and attitude respectively it was highly significant at 5% level (i.e.,  $p < 0.001$ ). and the findings are consistent with the cross-sectional survey study done in Michigan.<sup>14</sup>

There is a limited number of similar studies conducted across India and other countries. Our study was conducted at Bengaluru, in a state of Karnataka with only few auto drivers. So, it is very difficult to generalize the result with other studies as India is a very big country and there are many states in India. Furthermore, the liquor regulation and consumption vary in different parts of the country. Therefore, it is very important to create an awareness of health risk problems related to alcohol consumption among commercial drivers across India and also Bengaluru to reduce road traffic accidents and improve public health.

### **Limitations:-**

The study was conducted at Kengeri south zones of Bangalore which led to a small sample size, and hence the findings of this study cannot be generalized to all the auto drivers in Bangalore. In addition, this study is limited to the only rural community area and did not make any comparison between urban versus rural community areas.

### **Conclusion and Recommendations:-**

The main focus of the study was to check the knowledge and attitude level of the auto drivers towards liver cirrhosis in Bangalore's south zone rural community area. We have found that in the pre-test level of knowledge, 46 (76.7%) of auto-rickshaw drivers had inadequate knowledge, 14 (23.3%) had moderate knowledge and in the post-test 23 (38.3%) had moderate knowledge and 37 (61.7%) had adequate knowledge. In the pre-test level of attitude, 40 (66.7%) had an unfavorable attitude, 20 (33.3%) had a neutral attitude and in the post-test 60 (100%) had a favorable attitude. The outcome of paired “t” test knowledge score and statistical significance based on Paired “t” test. The maximum score was 28, the mean was 10.93, the standard deviation was 3.99, the mean percentage was 39.0%, and paired t-test value was 21.19 shows there is significant effectiveness in the level of knowledge before and after the administration of video-assisted teaching among drivers regarding cirrhosis of liver. To our knowledge, there is very less studies done on this topic. The authors hope that these findings will support the stakeholders, social workers, government authorities, and public health researchers to make a significant decision to educate the commercial drivers to understand liver cirrhosis due to alcohol consumption, and also to improve community health problems and also to avoid road traffic accidents.

**Ethical Considerations:-**

Beedi workers colony committee governance approval was taken before the research, and actual data collection, and also permission was taken from the institutional ethical committee. A consent sheet was prepared in kannada language with the descriptions of the impact of the study on the responders and attached the tool on a separate page. furthermore, the subjects were also informed that their participation was voluntary and have the freedom to withdraw from the study anytime.

**Authors Contributions:-**

All authors made a significant contribution to the work reported. S.S made the study conception, design and acquisition of data and R.S did execution, analysis and interpretation of the data. Finally, all the authors read, revised and drafted the manuscript for publication and also give final approval of the version to be published based on the selected journal to which the article has been submitted.

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**Conflicts of Interest:-**

The author reports no conflicts of interest in the research work.

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**Reference:-**

1. Mayo clinic ; Mayo Clinic Family Health Book ; 4th Edition; Hachette Book Group US Agency; 6 October 2009.
2. Lippincott manual of nursing practise. 8<sup>th</sup> edition; Lippincott willams&wilkins; Pp.698-699
3. Alcoholicliver disease; 2010 Available from: [https://en.wikipedia.org/wiki/Alcoholicliver\\_disease](https://en.wikipedia.org/wiki/Alcoholicliver_disease).
4. Joyce. M. Black, Jane hokanson Hawks; Medical Surgical Nursing, clinical management of positive outcomes; 7<sup>th</sup> edition; Saunders publication; Volume-1; p-1338-1341.
5. Brunner & suddarth's; test book of medical-surgical nursing; 12th edition; south asian edition; volume 2; newdelhi; 2011
6. Rajendran SD (ed); Globalization and increasing trend of alcoholism. Community Health Cell, for the Asia Social Forum, 2-7 January 2003; Hyderabad, India.
7. Narawane NM, Bhatia S, Abraham P, Sawant SS. Consumption of "country liquor" and its relation to alcoholic liver disease in Mumbai. Assoc Physicians India 1998;46(6):570-3.
8. Johns Hopkins Medicine Gastroenterology & Hepatology. Available from: <http://www.hopkinsgi.org/GDL.Disease.aspx?currentUDV=31&GDL>.
9. Douds A C, Cox M A, Iqbal TH, Cooper B T.; Ethnic differences in cirrhosis of liver in a British city: alcoholic cirrhosis in south Asian men; Alcohol and Alcohol 2003;38:145-150.
10. Rehm J, Shield KD ; Alcohol and Mortality Global Alcohol-Attributable Deaths From Cancer, Liver Cirrhosis, and Injury in 2010 ; Alcohol Research : Current Reviews ; Alcohol Res. 2014; 35(2):174-183.
11. Rahul shil, Dhanpal HN, Dr. Ramu K. Effectiveness of an educational intervention in increasing knowledge regarding lung cancer among engineering students. International journal of nursing and health research. 2020;2(1):01-03.
12. Dae Won Jun, Yong Kyun Cho, Joo Hyun Sohn, Chang Hyeong Lee, Seok Hyun Kim, Jong Ryeul Eun; A study of the awareness of chronic liver diseases among Korean adults; Korean J Hepatol. 2011;17(2):99-105.
13. Matthew A Goldsworthy, Waleed Fateen, Helene Thygesen, Mark A Aldersley, Ian A Rowe, Rebecca L Jones; Patient understanding of liver cirrhosis and improvement using multimedia education. Frontline Gastroenterology, BMJ. 2017; 8:214-219.
14. Michael L. Volk, Natalie Fisher, Robert J. Fontana; Patient Knowledge about Disease Self-Management in Cirrhosis. Am j Gastroenterol. 2013;108(3):1-10.