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A study to evaluate the effectiveness of video teaching program on knowledge regarding cirrhosis of liver among alcohol users in a selected urban slums area

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Abstract
Background of the Study: Alcohol is broken down by the liver. This produces harmful chemicals that can damage and kill liver cells. Although the liver is very good at repairing itself, it cannot keep up with the damage caused by drinking too much alcohol on a regular basis. This can cause scarring and lead to cirrhosis of the liver.
Methodology: The research approach for the study was quantitative research approach, the research design used was one group pretest and post-test design, and population of the study was Prayash Nasha Mukti Kendra in Gwalior, 30 sample selected for the study by using quasi experimental research design and convenient sampling technique. The tools used was to assess the knowledge regarding cirrhosis of liver among slums areas. The studies 30 sample of alcoholic users were chosen using a non-probability sampling approach. The pilot study was feasible in term of time, money, material and resources.
Results: The mean value of pre-test: The pre-test knowledge scores of alcohol users assessed using a knowledge questionnaire. In the pre-test, a maximum of 22 [76.3%] were found to have poor knowledge, 6 [18%] had average knowledge, while 1 [4.3%] had good knowledge. The mean score was 7.9183 and the SD is 5.5779.
The mean value of post-test: With respect to plots the post-test knowledge scores of alcohol users assessed using a knowledge questionnaire. In the posttest, a maximum of 28 [94%] were found to have good knowledge, 1 [3%] had average knowledge. While 1 [3%] had poor knowledge. The mean score was 24.5314 and the SD is 3.71.
Comparison of pretest & posttest: The comparison of pretest and posttest scores of the study sample regarding alcohol-induced liver cirrhosis. In the pre-test, a maximum of 22 [76.3%] were found to have poor knowledge, 6 [18%] had average knowledge, while 1 [3%] had good knowledge. The mean score was 7.9183 and the SD is 5.5779. In the posttest, a maximum of 28 [94%] were found to have good knowledge, 1 [3%] had average knowledge, while 1[3%] had poor knowledge. The mean score was 24.5314 and the SD is 3.71.
The association between posttest knowledge scores and sociodemographic variables is not critical at $p<0.05$ levels
Conclusion: The mean difference between pre-test and post-test value showed that the assisted video teaching programme was effective in improving knowledge of alcohol users regarding to cirrhosis of liver.

Keywords: Alcohol, cirrhosis of liver, chronic liver disease, fibrosis

Introduction
Liver cirrhosis is the term used for a chronic liver disease characterized by diffuse inflammation and fibrosis leading to drastic structural changes and significant loss of liver function, with extensive degeneration and destruction of liver parenchymal cells. Liver cells attempt to regenerate, but the regeneration process is disorganized, leading to abnormal relationships between blood vessels and the bile duct from fibrosis. The overgrowth of new and fibrous connective tissue disrupts the normal lobular structure of the liver, resulting in lobes of irregular size and shape with limited vascular flow. Cirrhosis can be insidious and long-lasting. Alcohol is a known cause of cirrhosis. Cirrhosis of the liver is not clear if the associated risk varies by drinking alcohol with food, frequency, or type of alcohol consumed. These aimed to investigate the association between alcohol consumption and daily frequency of consumption.

The World Health Organization (WHO) definition of cirrhosis is a diffuse process characterized by fibrosis and transformation of normal liver architecture into structurally abnormal nodules that lack normal lobular organization. It can also develop in livers that are already cirrhotic. Treatment of ALD includes cessation of alcohol consumption, treatment of extrahepatic complications of alcoholism (electrolyte abnormalities, withdrawal syndromes, cardiac dysfunction, poor nutrition, pancreatitis, gastropathy, infection), treatment of severe alcoholic hepatitis, and treatment of cirrhosis sequelae (ascites, portal hypertensive bleeding, encephalopathy). Liver transplantation is beneficial in selected abstinent patients with decompensated cirrhosis. Continuing to drink alcohol despite knowledge of persistent or recurrent social, psychological, or physical problems that are caused or exacerbated by alcohol use. The main complications of liver cirrhosis are portal hypertension with subsequent esophageal varices, peripheral edema and ascites, hepatic encephalopathy (coma) and hepatorenal syndrome. Long-term alcohol consumption also impairs the regenerative response that is normally triggered by the death of liver cells. The result is small nodules of regenerating parenchyma. For this reason, micronodular cirrhosis is observed in actively drinking patients. Abstinence from alcohol relieves the liver of the antiproliferative effects of alcohol and is associated with the development of macronodular cirrhosis.

Alcoholic cirrhosis

Liver cirrhosis is the most severe form of ALD and the cause of many deaths and serious illnesses. In cirrhosis, scar tissue replaces normal liver tissue, disrupts blood flow to the liver and prevents it from functioning properly. Clinical signs of cirrhosis include redness of the palms due to dilated capillaries (palmar erythema); shortening of the muscles in the fingers (contractures) caused by toxic effects or fibrous changes; white nails; thickening and widening of fingers and nails (clubbing); enlargement or inflammation of the liver; and abnormal accumulation of fat in normal liver cells (fatty infiltration). The diagnosis of cirrhosis must be made by biopsy, although laboratory tests may also be helpful. About 10 to 15 percent of people with alcoholism develop cirrhosis, but many survive. Many are unaware they have it, and about 30 to 40 percent of cirrhosis cases are discovered at autopsy (Anand 1999) [34]. The five-year survival rate for people with cirrhosis who stop drinking is about 90 percent, compared with 70 percent for those who don't stop drinking. In late-stage cirrhosis-that is, when jaundice, fluid accumulation in the abdomen (ascites), or gastrointestinal bleeding occurs-the survival rate is only 60 percent for those who stop drinking and 35 percent for those who do not. Cirrhosis of the liver A term used for a chronic liver disease characterized by diffuse inflammation and fibrosis leading to drastic structural changes and significant loss of liver function, with extensive degeneration and destruction of liver parenchymal cells. Liver cells attempt to regenerate, but the regeneration process is disorganized, leading to abnormal relationships between blood vessels and the bile duct from fibrosis. The overgrowth of new and fibrous connective tissue disrupts the normal lobular structure of the lever, resulting in lobes of irregular size and shape. Cirrhosis can have a prolonged course. Liver cirrhosis classified in different ways.

Alcohol use disorder

Alcohol use is the most commonly used psychoactive substance in the world and is one of the leading causes of death and disability worldwide. Alcohol abuse causes 3.2% (1.8 million) of all deaths worldwide annually and also accounts for 4.0% of the global burden of disease each year. Research has shown that alcohol use is associated with alcohol dependence, other drug use, unintentional injuries, physical fights, criminal activity, suicidal thoughts and attempts, and an increased risk of human immunodeficiency disease (HIV). To address this global public health problem, the World Health Organization (WHO) has recently prioritized global reduction of harmful alcohol use, with a particular focus on monitoring and technical support. Even with limited data, it is still clear that low- and middle-income countries and vulnerable populations bear an increased burden of disease and injury due to increasing alcohol consumption and limited or non-existent public health and prevention policies and programs. In sub-Saharan Africa, alcohol use has been found to be associated with early alcohol use, risky unprotected sex, mental disorders, and road traffic accidents and injuries.

Effective teaching videos

Educational videos have become an important part of higher education and provide an important tool for delivering content in many flipped, blended, and online classrooms. The effective use of video as an educational tool will improve when instructors consider 3 elements: (1) managing the cognitive load of the video, (2) maximizing student engagement with the video, (3) promoting active learning from the video. This essay reviews the literature relevant to each of these principles and suggests practical ways instructors can apply these principles when using video as an instructional tool.

Need for study

Benefits for alcohol users

1. This research will help the development of alcohol users.
2. This research will help provide knowledge regarding cirrhosis of the liver.
3. This study will help with alcohol prevention.
4. This research will help develop confidence in alcohol users.
5. This research will help the knowledge of alcohol users.
6. This study will provide insights into the community then complications by increasing alcohol consumption.
7. Awareness of alcohol users in reducing the risk of liver cirrhosis
8. This research will contribute to reducing the burden on the health care system and the rehab facility.
9. This research will help reduce mortality and morbidity rates

It conducted a study on the etiology of liver cirrhosis in adults living in a slum area in Gwalior of Madhya Pradesh, India. Liver cirrhosis is the most important cause of morbidity and mortality in India. The purpose of this study was to evaluate epidemiological data on the etiological profile of liver cirrhosis in alcohol users in Nasha Mukti Kendra of Gwalior Madhya Pradesh.

Goal of study

1. To assess the knowledge regarding alcohol induced Cirrhosis of liver among alcohol users in selected slums areas.
2. To find the association between pre-test level knowledge score and selected demographic variables.
3. To evaluate the effectiveness of video teaching program on knowledge regarding Cirrhosis of liver among alcohol users selected slums areas.

Hypothesis

H_1: There will be a significant difference between the pre-interventional and post-interventional level of knowledge regarding cirrhosis of liver.

H_2: There will be a significant association between the post-interventional level of knowledge and selected demographic variables of alcohol users.

On comparing the pre and posttest scores of knowledge regarding cirrhosis of liver it was seen that there was an increase in the knowledge scores after the implementation of intervention. Thus H_1 was accepted.

Research Approach: Quantitative research approach.

Research Design: Quasi experimental one group pretest–posttest design (one shot case study) research design.

Group	Pre test	Manipulation	Post test
Experimental	O_1	X	O_2

Setting: Prayash Nasha Mukti Kendra in Gwalior.

Target Population: Alcohol users in urban slums areas.

Accessible Population: Alcoholic users residing in selected areas of the Gwalior city.

Samples Size: 30 sample size

Sampling Technique: Convenient sampling technique

Research Tool for data collection: Socio Demographic Proforma & knowledge questionnaire or Assisted Video teaching.

Demographic proforma/Factors: Age, Gender, Educational status, Occupation, Type of family, Monthly family income, Marital status, any other member in family with alcohol habit, Duration of being in habit, Any health issues.

Criterion Measures: Knowledge of liver cirrhosis & its management among alcohol users.

Data Collection Procedure: Data collection was conducted during the fourth week of June 2021 at Prayash Nasha Mukti Kendra, Gwalior. The pilot research study was done at this Prayash Nasha Mukti Kendra dating from 26-06-21 to 24-07-21 for a period of 1 month to evaluate the tools effectiveness. To assess the level of knowledge regarding to cirrhosis of liver among alcohol users in selected Prayash Nasha Mukti Kendra in urban slums areas in Gwalior. Information was collected through structure interview schedule. In an average of 2-3 alcohol users were interviewed daily and approximately 20-30 minutes were taken for each interview.

Ethical Consideration: Formal Administrative Approval Was Taken from Concerned Authorities, Anonymity, Confidentiality from The Samples Was Also Considered.

Plan for Data Analysis: The researcher decided to frame a structured knowledge-based questionnaire. After obtaining approval from the guide and made necessary modification according to the suggestions. The interpretations where drawn for feasibility and validity of the investigation. After validation and the instruments dependability, the trial research knowledge was carried out at select Prayash Nasha Mukti Kendra for conducting the study prior permission obtained from director of Prayash Nasha Mukti Kendra. Use more specific survey questions to understand those answers.

- Organize data in master data sheet.
- Demographic variables would be analyzed by using Frequency and percentage.
- 't-test' will be used.
- Data of alcohol users of cirrhosis of liver would be analyzed by using 'ANOVA TEST.

Descriptive Statistics: Frequency and percentage distribution is used to study the demographic variable. Mean and standard deviation will be is used to determine the level of effectiveness on pre-conception counseling and care.

Inferential Statistics: Inferential statistics uses information from a survey to draw conclusions regarding the broader population from which the samples get drawn. The purpose of inferential statistics is to trace conclusions and generalize them to population. Chi-square test is used to determine the association of effectiveness and selected demographic variables. 't-test' will be used for comparison between two groups.

Data Analysis and Interpretation

Section–I Data related to socio demographic variable of studied sample

Table 1: Distribution of alcohol users under study the details of frequency, percentage allotment of socio-demographic variables of studied samples. N=30

Demographic Variable	Frequency	Percentage (%)
Age		
Less than 20	3	10
20 – 30 years	6	20
30 – 40 years	9	30
More than 40 years	12	40
Gender		
Male	27	90

Female	3	10
Educational status		
No formal education	9	30
Primary level	9	30
Middle /Secondary level	7	23
Undergraduate/graduate	3	10
PG /others	2	7
Type of family		
Nuclear	13	43
Joint	12	40
Extended	5	17
Occupation		
Unemployed	6	20
Self employed	8	27
Business	6	20
Private job	8	27
Govt.job	2	6
Family income		
Less than 5000/-	4	14
5001/- to 10,000/-	9	30
10,0001 – 20,000/-	11	36
More than 20,000/-	6	20
Marital status		
Unmarried	5	17
Married	12	40
Divorcee/separated	8	26
Widow/widower	5	17
Any member in habit		
Yes	9	30
No	21	70
Duration of being in habit		
Less than one year	6	20
1-3 year	15	50
3-5 year	5	17
More than 5 years	4	13
Any health issue		
Yes	6	20
No	24	80

Section II: Data related to pre-test knowledge scores of studied samples knowledge regarding alcohol induced cirrhosis of liver

Table 2: Data of pretest knowledge scores among studied alcohol users

S. No	Test	Grade	Range	F	%	Mean	SD
1	Pre-test	0-10	Poor	23	77	7.9183	5.5779
		11-20	Average	6	20		
		21-30	Good	1	3		

Section III: Data related to posttest knowledge scores of studied samples knowledge regarding alcohol induced cirrhosis of liver

Table 3: Data of post-test knowledge scores among studied alcohol users

S. No	Test	Grade	Range	F	%	MEAN	SD
1	Post-test	0-10	Poor	1	3	24.5314	3.71
		11-20	Average	2	7		
		21-30	Good	27	90		

Section IV: Data on comparison of the frequency, percentage of pretest and posttest knowledge scores

Table 4: Comparison of pretest and posttest scores

S. No.	Test	Range	Grade	F	%	MEAN	SD
1	Pre-test	0-10	Poor	23	77	7.9183	5.5779
		11-20	Average	6	20		
		21-30	Good	1	3		
2.	Post-test	0-10	Poor	1	3	24.5314	3.71
		11-20	Average	2	7		
		21 – 30	Good	27	90		

Section V: Data on effectiveness of intervention by comparing pre and post-test knowledge score.

Table 5: Comparison of mean and sd of pretest and posttest scores

S. No.	Test	Mean	Mean difference	Sd	SEd	't' Value	Significance
1	Pre-Test	7.9183	38.68	13.5	4.49	39.29	t= 39.29 Significant $p<0.05$ at df= 299
2	Post test	24.53					

Section VI: Data on association existing between post-test aggression scores and socio demographic variable

Table 6: Association between post-test knowledge among alcohol users and demographic variables N=30

Demographic variables	Poor	Average	Good	Total	Chi square	Significance
Age					35.7014	χ^2 =35.7014 P-value>0.05 highly significant At df 6
Less than 20	0	1	2	3		
20 – 30 years	0	1	5	6		
30 – 40 years	0	1	8	9		
More than 40 years	0	0	12	12		
Gender					34.46	χ^2 =34.46 P- value >0.05 highly significant At df 2
Male	0	2	25	27		
Female	0	1	2	3		
Educational status					22.6938	χ^2 =22.6938 P- value >0.05 highly significant At df 8
No formal education	0	1	8	9		
Primary level	0	1	8	9		
Middle /Sec. level	0	0	7	7		
Undergraduate/graduate	0	1	2	3		
PG /others	0	0	1	2		
Type of family					3.6879	χ^2 =3.6879 P- value >0.05 highly significant At df 4
Nuclear	1	1	11	13		
Joint	0	1	11	12		
Extended	0	1	4	5		
Occupation					50.6368	χ^2 =50.6368 P- value >0.05 highly significant At df 8
Unemployed	0	1	5	6		
Self employed	0	1	7	8		
Business	0	1	5	6		
Private job	0	1	7	8		
Govt.job	1	0	1	2		
Family income					7.3257	χ^2 =35.7014 P- value < 0.05 non significant At df 6
Less than 5000/-	0	1	3	4		
5001/- to 10,000/-	0	1	8	9		
10,0001 – 20,000/-	0	1	10	11		
More than 20,000/-	0	2	4	6		
Marital status					6.7724	χ^2 =6.7724 P- value < 0.05 non significant At df 6
Unmarried	0	1	4	5		
Married	0	1	11	12		
Divorcee/separated	0	1	7	8		
Widow/widower	1	1	4	5		
Any member in habit					1.6542	χ^2 =1.6542 P- value < 0.05 non significant At df 2
Yes	0	2	7	9		
No	0	1	20	21		
Duration of being in habit					52.8138	χ^2 =52.8138 P- value > 0.05 highly significant At df 6
Less than one year	0	0	6	6		
1-3 year	0	1	14	15		
3-5 year	0	0	5	5		
More than 5 years	0	1	3	4		
Any health issue					10.9172	χ^2 =10.9172 P- value < 0.05 significant At df 2
Yes	0	1	5	6		
No	0	1	23	24		

$p<0.05$

H_1: There will be a significant difference between the pre-interventional and post-interventional level of knowledge regarding cirrhosis of liver.

H_2: There will be a significant association between the post-interventional level of knowledge and selected demographic variables of alcohol users.

On comparing the pre and posttest scores of knowledge regarding cirrhosis of liver it was seen that there was an increase in the knowledge scores after the implementation of intervention. Thus H_1 was accepted.

Conclusion

The study was conducted with the objective to find out the conclusion. The researcher are essence of work done by him in concise manner. It included discoveries and result of study according to part savvy conversation then synopsis dependent on characterized destinations and instruments were utilized and information investigation and interpretation were examined. It shows exhaustively about discoveries research scholar has discovered from study. Along these lines the study infers that the video assisted showing module had upgraded the knowledge scores among alcohol users. Consequently, the video assisted educational program is informatively viable, fitting and plausible.

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