

## A Study to Assess the Effectiveness of Structured Teaching Programme on Knowledge Regarding Alcoholic Cirrhosis Among Diploma Students of Polytechnic College at Bagalkot

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### Abstract

### Original Research Article

**Background:** The liver is the largest gland of the body, can be considered a chemical factory that manufactures, stores, alters, and excretes a large number of substances involved in metabolism. The location of liver is essential in this function because it receives nutrients-rich blood directly from the gastrointestinal (GI) tract and then either stores or transforms these nutrients into chemicals that are used elsewhere in the body for metabolic needs. Cirrhosis is a chronic progressive disease of the liver characterized by extensive degeneration and destruction of the liver parenchymal cells. The liver cells attempt to regenerate, but the regenerative process is disorganized, resulting in abnormal blood vessel and bile duct architecture. **Aims:** (1) To assess the existing knowledge regarding of alcoholic cirrhosis among diploma students. (2) To determine the effectiveness of structure teaching programme regarding alcoholic cirrhosis among diploma students. (3) To find out the association between post-test knowledge level regarding alcoholic cirrhosis among diploma students. With their selected socio- demographic variables. **Materials and Methods:** Study approach this was a qualitative study and follow the iexamination plan as pre-exploratory, for example one gathering pre –test and post –test without control group. The population associated with this investigation was diploma students studying at bvvs institute of poly technic college at Bagalkot. Test size is 50 (Total) diploma students were redeemed for the investigation. Further information was gathered by organized shut finished information poll. **Results:** The knowledge level of the students regarding alcoholic cirrhosis showed that in pretest scores, majority (6%) of the sample had average knowledge, (44%) had poor knowledge and (0%) had good knowledge on alcoholic cirrhosis where as in post test score all of them had very good knowledge and (92%) had average knowledge on alcoholic cirrhosis. **Interpretations and conclusions:** The findings of the study have certain important implications for the nursing profession such as nursing practices, nursing, education, nursing, research, and nursing administrations.

**Keywords:** alcoholic cirrhosis, diploma students, structured teaching programme, Knowledge.

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## 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 [1].

Chronic alcoholism causes severe health problem like liver disorder, gastrointestinal problem, diabetes, skin, muscle, bone disorder and reproductive problem. Prolonged heavy use of alcohol can lead to addiction1. Extensive alcohol intake is likely to produce withdrawal symptoms including severe anxiety, tremor,

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hallucination and convulsion. In addition, mother who drinks alcohol during pregnancy may give birth to infant with fatal alcoholic syndrome. These infants may suffer from mental retardation and other irreversible physical abnormality<sup>2</sup>. Drinking is considered harmful when alcohol consumption has actually caused physical or psychological harm. People with alcohol abuse have one or more of the alcohol-related work or personal obligations, recurrent use in potentially [2].

Alcohol consumption is a common habit that varies considerably by location [1]. Recent data of the prevalence of Spanish current drinkers indicate that 55% of female's and 78% of males were current drinkers, which is much higher than global data (25% of females and 39% of males) [1]. Excessive alcohol consumption is associated with a wide range of problems relating to physical health, either directly, or through contributions to other health conditions. Consequently, the associated health problems have reached alarming levels, becoming a major public health concern. In 2016, more than 3 million deaths were attributed to alcohol consumption, which represents 1 in 20 deaths worldwide [2]. Excessive alcohol consumption evokes a wide spectrum of hepatic lesions. Steatitis is the earliest and commonest liver disease, which is reversible if the affected individual ceases drinking [3]. However, patients with chronic steatosis are more susceptible to fibrotic liver diseases and 10–20% of heavy drinkers develop the terminal or late-stage cirrhosis, which is characterized by excessive liver scarring, vascular alterations, architectural distortion, and eventual liver failure [4]. There is considerable variability in the susceptibility of developing cirrhosis on an individual basis. These determinants reflect the interplay of constitutional and environmental factors. Also, variations in the genes encoding the enzymes playing an active role [3].

## MATERIALS AND METHODS

**Study Design:** Pre-experimental one group pre-test post-test design was used to determine effectiveness of structured teaching program on prevention of alcoholic cirrhosis among diploma students studying in Bvvs poly technic college at Bagalkot.

**Setting of the study:** The study was conducted at Bvvs institute of poly technic at Bagalkot.

**Participants:** Sample consist 50 students studying in first and second year diploma of Bvvs institute of polytechnic college at Bagalkot.

**Sampling techniques:** Simple random sampling technique was used to select the sample. There were 50

students from first- and second-year diploma students. were selected by usage of random selection method.

### DESCRIPTION OF DATA COLLECTION:

#### SECTION 1: SOCIO DEMOGRAPHIC FACTORS:

Demographic preform consisted of students age, gender, year of study, mother education, father education, Type of family, Previous Information about alcoholic cirrhosis, Previous history of alcoholism related on alcoholic cirrhosis,

#### SECTION 2:

Structured Knowledge questionnaire on alcoholic cirrhosis had 50 items. The subjects were instructed to tick mark ( ) on the space provided towards the correct response. The scoring was done by just counting the correct responses and according to the total score obtained. The highest possible score was 50. It was arbitrarily classified into four levels: [0-10(Poor)], [11-20, (Average)], [21-30, (Good)].

#### DATA COLLECTION:

The data was collected from 29/10/2025. The exact time and data planned with college authority and was communicated to the respondents. The investigator approached principal of BVVS institute of poly technic college at Bagalkot.

#### VARIABLES UNDER THE STUDY:

**Dependent variables:** The dependent variable refers to the level of knowledge regarding alcoholic cirrhosis among diploma students selected colleges at Bagalkot.

**Independent variables:** Structured Teaching Programme.

#### STATISTICAL ANALYSIS:

Data was collected using a demographic perform and structured knowledge questionnaire consisting of 50 questions.

Reliability of the structured knowledge questionnaire was established using Karl Pearson's ( $\alpha=0.05$ ) Pilot study was conducted on 5 selected arts students. The main study was conducted among 50 randomly diploma students from 29.10.2025 to 16.11.2025. Following the pre-test, structure questionnaires was administered and post-test was conducted on the 8<sup>th</sup> day of administration structure questionnaires.

## RESULT

The study was begun with selection of 50 diploma students who were present at Bvvs institute of poly technic College at Bagalkot. All the students were screened for eligibility criteria. Researcher has allocated to subjects to the group.

**Table 1: Description of Socio- demographic characteristic of sample**

| Variables   |                         | Frequency | Percentage (%) |
|---|-------------------------|-----------|----------------|
| Age   | 15-16                   | 8         | 16             |
|   | 17-18                   | 41        | 82             |
|   | 19 & above              | 1         | 2              |
| Gender  | Male                    | 25        | 50             |
|   | Female                  | 25        | 50             |
| Educational status                                  | 10th                    | 2         | 4              |
|   | 9th                     | 1         | 2              |
| Mother Education                                    | Degree                  | 3         | 6              |
|   | PUC                     | 44        | 88             |
|   | 10th                    | 20        | 40             |
|   | PUC                     | 13        | 26             |
| Father education                                    | Degree                  | 11        | 22             |
|   | No any formal education | 6         | 12             |
|   | 10th                    | 16        | 32             |
|   | PUC                     | 9         | 18             |
| Place of residence                                  | Degree                  | 22        | 44             |
|   | No any formal education | 3         | 6              |
| Type of family                                      | rural                   | 14        | 28             |
|   | urban                   | 33        | 16             |
|   | Semi urban              | 3         | 6              |
| Monthly income                                      | Nuclear                 | 31        | 62             |
|   | Joint                   | 19        | 38             |
| A previous information egarding alcoholic cirrhosis | BELOW 2500              | 12        | 24             |
|   | 2500-5000               | 9         | 18             |
|   | 5000-10000              | 11        | 22             |
|   | MORE THEN 10000         | 18        | 36             |
| YES   | YES                     | 8         | 16             |
|   | NO                      | 42        | 84             |

**TABLE 2: Assessment of pre-test knowledge regarding Alcoholic cirrhosis among Diploma student's Polytechnic College at Bagalkot. N=50**

| Test               | Level of knowledge | Number (f) | Percentage (%) |
|--------------------|--------------------|------------|----------------|
| Pre-test knowledge | Good               | 0          | 0%             |
|                    | Average            | 6          | 12%            |
|                    | Poor               | 44         | 88%            |
| Total              |                    | 50         | 100%           |

Percentage wise distribution of diploma students in pre-test reveals that out of 50 students, highest percentage (6%) of students had average knowledge followed by (0%) of students had good knowledge, (44%) of the students had poor knowledge regarding alcoholic cirrhosis.

**PART 3:** To evaluate the effectiveness structured teaching on Knowledge of alcoholic cirrhosis among Diploma Students of Polytechnic College at Bagalkot.

#### **Section I: Comparison of knowledge Level of diploma students in pre-test and Post-test N=50**

| Level of knowledge | Pre-test              |                | Post-test             |                |
|--------------------|-----------------------|----------------|-----------------------|----------------|
|                    | Number of respondents | Percentage (%) | Number of respondents | Percentage (%) |
| Good               | 0                     | 0%             | 46                    | 92%            |
| Average            | 6                     | 12%            | 4                     | 8%             |
| Poor               | 44                    | 88%            | 0                     | 0%             |
| Total              | 50                    | 100%           | 50                    | 100%           |

**Table 3: Comparison of knowledge level of students in pre-test and post-test**

Knowledge wise comparison of students in pre-test revels that. Out of diploma students, highest

percentage (12%) of students had average knowledge (44%) of students had poor knowledge, followed by (0%) of students had good knowledge. However, after administration of structural teaching program me (92%) of diploma students had good knowledge 8% of diploma

students had average knowledge, none of them had poor knowledge.

### Section III: Area wise effectiveness of structured teaching programme on alcoholic cirrhosis.

**Table 4: Effectiveness of Structured Teaching Programme on alcoholic cirrhosis's N=50**

| Knowledge area                                       | Max. score | Pre-Test (O <sub>1</sub> ) |        | Post-Test (O <sub>2</sub> ) |        | Effectiveness (O <sub>2</sub> - O <sub>1</sub> ) |        |
|--|------------|----------------------------|--------|-----------------------------|--------|--|--------|
|  |            | Mean ±SD                   | Mean % | Mean ±SD                    | Mean % | Mean ±SD   | Mean % |
| I. General information about of alcoholic cirrhosis. | 30         | 12.84± 4.12                | 42.8%  | 15.04± 3.56                 | 50.13% | 2.2 ±0.56  | 7.3%   |

The overall findings shows that the post-test knowledge score (15.04±3.5) which was 50.13% of total score was more when compared to the pre-test knowledge score (12.84 ± 4.12) which was 40.8% of total score. The effectiveness of structured teaching

program me in this area was mean knowledge score was 2.2 with SD ± 0.56 which was 7.3% of total score. Hence it indicates that structure teaching program me was effectiveness in enhancing the knowledge of students.

**Table 5: Significant difference between the pre-test knowledge and post-test knowledge scores of diploma students studying in bvbs institute of polytechnic college at Bagalkot. N=50**

| Test (Knowledge)            | Mean  | Mean Diff | SD Diff | Paired t-value | Table value |
|-----------------------------|-------|-----------|---------|----------------|-------------|
| Pre-test (O <sub>1</sub> )  | 12.84 | 2.2       | 0.56    | 0.7            | 2.0         |
| Post-test (O <sub>2</sub> ) | 15.04 |           |         |                |             |

As calculated "t" value (0.7) was much higher than table value (2.0) for degree freedom 49 and 5% level of significance. hence there were significance difference

between pre-test and post-test knowledge indicating the effectiveness of structured teaching programme. (Table 6.8)

**Table 6: To find out the association between knowledge and socio-demographic variables, a research hypothesis was formulated. N=50**

| SI NO | Socio demographic variables                 | Df | Chi-square-value | Table value | P-value | Association |
|-------|---|----|------------------|-------------|---------|-------------|
| 1     | Age   | 1  | 2.3              | 2.0         | 0.1     | NS          |
| 2     | Gender                                      | 1  | 0.22             | 2.0         | 0.639   | NS          |
| 3     | Educational status                          | 1  | 0.04             | 2.0         | 0.8415  | NS          |
| 4     | Mother education                            | 1  | 0.11             | 2.0         | 0.7401  | NS          |
| 5     | Father education                            | 1  | 0.33             | 2.0         | 0.5657  | NS          |
| 6     | Place of residence                          | 1  | 0.15             | 2.0         | 0.6985  | NS          |
| 7     | Type of family                              | 1  | 0.15             | 2.0         | 0.6985  | NS          |
| 8     | Income monthly                              | 1  | 0.18             | 2.0         | 0.6714  | NS          |
| 9     | Previous information of alcoholic cirrhosis | -1 | 1.9              | 2.0         | 1       | NS          |

(Table 6) shows the findings related to association between the knowledge and socio-demographic variables of students and found that there was no significant association between knowledge and any of the socio-demographic variables. Hence H<sub>3</sub>stated is rejected.

and structured teaching programme administered by investigator helped them to improve the knowledge on alcoholic cirrhosis. The effectiveness of structured teaching programme was tested in terms of gain in knowledge and findings showed that It was statistically significant at 0.05 level. The findings of study concluded that the structured teaching programme was effective in improving knowledge of the students' regardless of their any personal characteristics. All the subjects had again in knowledge compared to their pretest knowledge scores.

## CONCLUSION

The findings of the study concluded that the students lacked knowledge regarding alcoholic cirrhosis

## FUTURE PROSPECT

About 86% of people with alcoholic cirrhosis worldwide have been tested and know their status. Testing is a essential first step to assessing treatment. The future of alcoholic cirrhosis student is promising. With more assessable treatments and prevention options. Alcoholic cirrhosis will continue to be major public health concern in the future. And health education will be important for preventing spread of the disease and help to gain knowledge in students.

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#### CONTRUBUTION OF AUTHORS:

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