

Effectiveness of Planned Teaching Programme on Knowledge Regarding Cirrhosis of Liver among Alcoholic Adult Males Residing in Selected Areas

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Abstract

Introduction: 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. Cirrhosis is a chronic progressive disease of the liver characterized by extensive degeneration and destruction of the liver parenchymal cells. According to the National Institutes of Health (NIH), cirrhosis is the 12th leading cause of death due to disease in the United States. It's more likely to affect men than women. It is becoming more and more common with about 10 lakh new patients being diagnosed with liver cirrhosis every year in India alone. Excessive alcohol ingestion is the single most common cause of cirrhosis because alcohol has a direct hepatotoxic effect. *Background:* 'Alcoholic' is a term used to describe someone who suffers from alcoholism. According to the World Health Organization (WHO), globally, "3.3 million deaths every year result from harmful use of alcohol." Cirrhosis occur with greatest frequency among people with alcoholism. *Objective:* To assess the pre-test knowledge regarding cirrhosis of liver among alcoholic adult males. To assess the post-test knowledge regarding cirrhosis of liver among alcoholic adult males. To evaluate the effectiveness of Planned Teaching Programme on knowledge regarding cirrhosis of liver among alcoholic adult males. To associate the knowledge score with selected demographic variables. *Methodology:* This study was based on Quantitative approach. The research design used in this study was Pre experimental one group pre-test and post-test design. The sampling technique used in the study was non probability purposive sampling and sample size of 60 alcoholic adult males (Above the 18 years). *Result:* The analysis reveals that post-test mean knowledge score value which was higher 16.95 with SD of ± 2.09 when compared with pre-test mean knowledge score value which was 6.08 with SD of ± 2.35 . The calculated *t*-value 31.43 is greater than table value 2.00 at 0.05 level of significance. Thus the H_1 is accepted and H_0 is rejected. *Conclusion:* The study concluded that planned teaching programme was effective in improving knowledge regarding cirrhosis of liver among alcoholic adult males. age, marital status, areas of residence and monthly family income was associated with the knowledge of alcoholic adult males regarding cirrhosis of liver.

Keywords: Assess; Effectiveness; Knowledge; Cirrhosis of Liver; Alcoholic Ault Males.

Introduction

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.¹

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. The over growth of new and fibrous connective tissue distorts the liver's normal lobular structure, resulting in irregular size and shape with impeded blood flow. Eventually, irregular, disorganized regeneration; poor cellular nutrition; and hypoxia caused by inadequate blood flow and scar tissue result in decreased functioning of the liver. Cirrhosis may have insidious, prolonged course.²

According to the National Institutes of Health (NIH), cirrhosis is the 12th leading cause of death due to disease in the United States. It's more likely to affect men than women.³

It is becoming more and more common with about 10 lakh new patients being diagnosed with liver cirrhosis every year in India alone.⁴

Alcohol related deaths and deaths caused by diseases due to alcoholism are a major cause for concern in the country. In 2012 alone about 3.3 million deaths in India were attributed to alcohol consumption. This amounts to some 5.9 percent of the global deaths that year. Most doctors and health agencies have repeatedly warned Indians of the disastrous health effects of alcohol consumption. Alcoholism is one of the leading causes of liver cirrhosis and failure.⁵

Excessive alcohol ingestion is the single most common cause of cirrhosis because alcohol has a direct hepatotoxic effect. There continues to be some controversy as to whether the cause is the alcohol or the malnutrition that frequently coexists with chronic ingestion of alcohol.²

Background and Need of the Study

'Alcoholic' is a term used to describe someone who suffers from alcoholism. According to the

World Health Organization (WHO), globally, "3.3 million deaths every year result from harmful use of alcohol."⁶

Cirrhosis occur with greatest frequency among people with alcoholism. Although nutritional deficiency with reduced protein intake contribute to liver destruction in cirrhosis excessive alcohol intake is the major causative factor in fatty liver and consequences.¹

Alcoholism, also known as alcohol use disorder (AUD), is a broad term for any drinking of alcohol that results in mental or physical health problems. The World Health Organization estimates that as of 2010 there were 208 million people with alcoholism worldwide (4.1% of the population over 15 years of age).⁷

Cirrhosis affected about 2.8 million people and resulted in 1.3 million deaths in 2015. Of these, alcohol caused 348,000, Hepatitis C caused 326,000, and Hepatitis B caused 371,000. In the United States, more men die of cirrhosis than women.⁸

Brij Sharma, Rishab Marwah, Sujeet Raina, Neetu Sharma, Madan Kaushik, Satinder Singh Kaushal, have conducted a study on the etiology of cirrhosis of liver in adults living in the Hills of Himachal Pradesh, India, Cirrhosis of the liver is an important cause of morbidity and mortality in India. The purpose of this study was to evaluate epidemiological data on the etiological profile of cirrhosis of the liver in adults in a tertiary care hospital in a northern hilly state of Western Himalayas. A hospital based, cross sectional, observational study was conducted in the department of Medicine and Gastroenterology in a tertiary care centre of Himachal Pradesh, located in northern India from 1st June, 2012 to 31st May, 2013. In total, 178 patients who were diagnosed with cirrhosis on the basis of history, physical examination, biochemistry and radiology, and of age >18 years were included in the study. Detailed history, examination and investigations were carried out in each case as per protocol. Alcohol was the leading cause of cirrhosis in our study (62.9%), Hepatitis B was the second (10.1%), Non-Alcoholic Steatohepatitis (NASH) was the third (7.9%), and autoimmune the fourth (3.9%) most common cause for cirrhosis. Hepatitis C was present in 2.8% of patients as a cause of cirrhosis. Wilson disease and cardiac cirrhosis were present in one patient each. In 9.6% the etiology was cryptogenic. The study identified alcohol as the leading cause of cirrhosis among people in the state. Measures for taking care of preventable risk factors are desired.⁹

Problem Statement

“An experimental study to assess the effectiveness of Planned Teaching Programme on knowledge regarding cirrhosis of liver among alcoholic adult males residing in selected areas of the city.”

Objectives

1. To assess the pre-test knowledge regarding cirrhosis of liver among alcoholic adult males.
2. To assess the post-test knowledge regarding cirrhosis of liver among alcoholic adult males.
3. To evaluate the effectiveness of Planned Teaching Programme on knowledge regarding cirrhosis of liver among alcoholic adult males.
4. To associate the knowledge score with selected demographic variables.

Operational Definition

Assess: In this study assess means, the organized systematic continuous process of collecting data from alcoholic adult males regarding cirrhosis of liver.

Effectiveness: In this study effectiveness means, the desired changes brought about by the planned teaching programme on knowledge regarding cirrhosis of liver.

Planned teaching programme: In this study planned teaching programme means, systematically providing information regarding cirrhosis of liver among alcoholic adult males.

Knowledge: In this study knowledge means, responses obtained from the alcoholic adult males regarding their knowledge on cirrhosis of liver.

Cirrhosis of liver: In this study the cirrhosis of liver means, is a chronic degenerative disease in which normal cells are damaged and are then replaced by scar tissue.

Alcoholic Adult males: In this study alcoholic adult males means the males who are consuming alcohol every day and who are above 18 years of age.

Delimitation: Present study is delimited to alcoholic adult males residing in selected areas.

Hypothesis: Is tested at 0.05 level of significance

- H_0 : there will be no significant difference between pre and post-test level of knowledge

score regarding cirrhosis of liver among alcoholic adult males.

- H_1 : there will be significant difference between pre and post-test knowledge score regarding cirrhosis of liver among alcoholic adult males.

Conceptual Framework

The conceptual framework selected for the study was based on Ersestine Wiedenbanch's Prespective Theory.

Review of Literature

In the present study the literature reviewed has been organized into the following categories:

1. Literature related to cirrhosis of liver.
2. Literature related to adult males knowledge on cirrhosis of liver.
3. Literature related to effectiveness of planned teaching programme.

Materials and Methods

Research approach: Quantitative research approach

Research design: Pre experimental one group pre-test and post-test research design

Setting of the study: Selected areas of the city

Variables:

Independent variables: Planned teaching programme on knowledge regarding cirrhosis of liver.

Dependent variables: Knowledge regarding cirrhosis of liver among alcoholic adult males.

Demographic variables: Age, marital status, Religion, Area of residence, Education status, Occupation, Types of family, Monthly family income, Consuming alcohol since, Frequency of alcohol consumption per day, awareness of cirrhosis of liver, sources of information.

Population:

Target population: All alcoholic adult males residing in selected areas.

Accessible population: Alcoholic adult males residing in selected areas of the city who were available at the time of data collection and who were fulfilling the inclusive criteria.

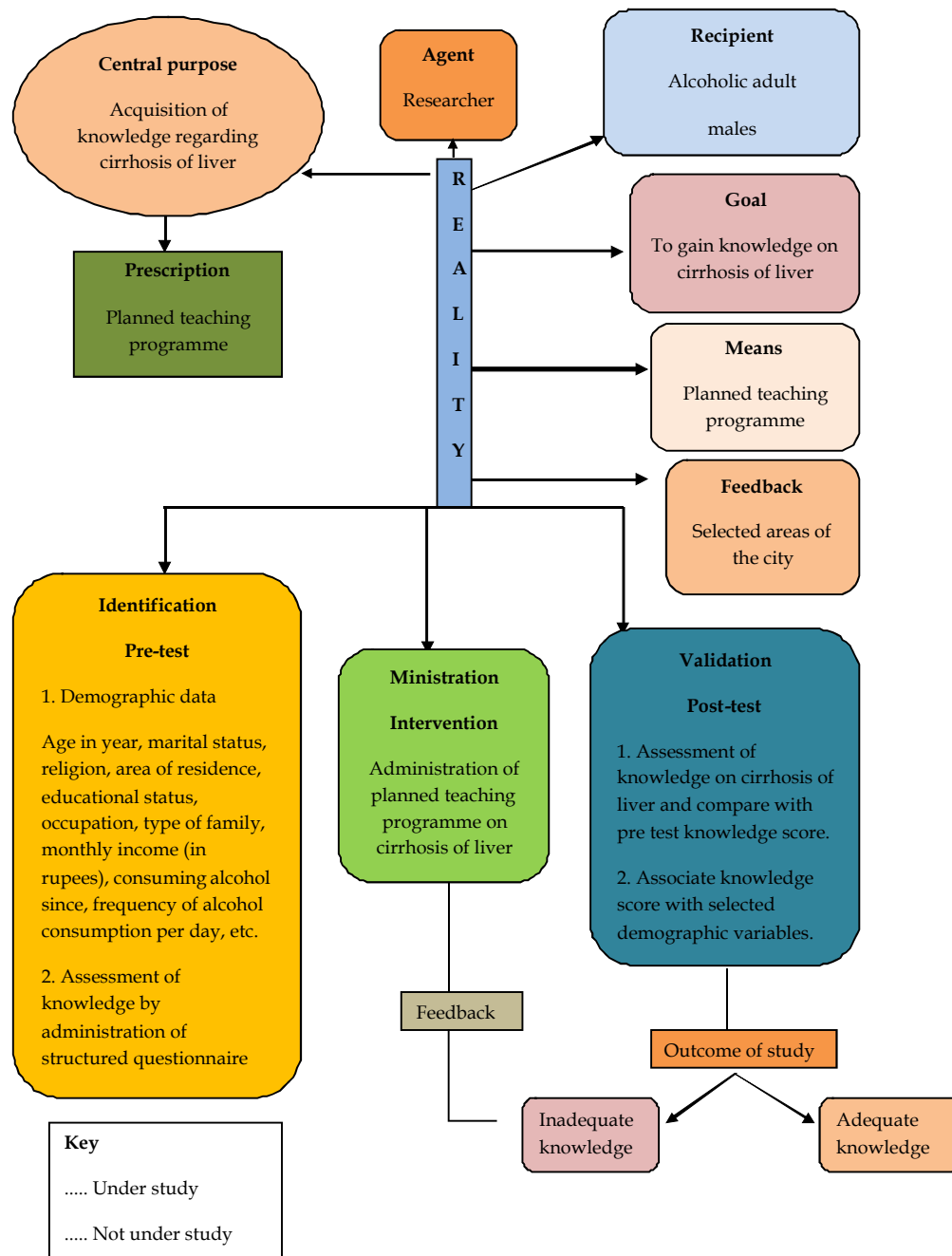


Fig. 1: Conceptual framework based on modified Widenbench perception theory.

Sample size: 60 alcoholic adult males

Sampling technique: Non probability purposive sampling technique.

Sampling Criteria:

Inclusive criteria: Inclusive criteria was, alcoholic adult males who are;

1. Above the 18 years of age
2. Able to read and write Hindi, English and Marathi

3. Willing to participate in study

4. Available at the time of data collection

Exclusion criteria: Exclusive criteria was, alcoholic adult males who are;

1. Less than 18 years of age

Tool and Technique of Data Collection

The tools used in this study consist of two sections

Section I

A Semi structured questionnaire on

demographic Variable.

- B Semi structured questionnaire on medical data.

Section II

- Self structured Knowledge Questionnaires
- Self structured questionnaire on knowledge regarding cirrhosis of liver consist of 25 questions.
- Planned teaching programme

Validity: For the content and construct validity of the tool was determine by 20 experts; including medical-surgical nursing specialist, MD medicine, statistician etc.

Reliability: Karl Pearson’s correlation coefficient formula was used. The correlation coefficient ‘r’ of the questionnaire was 0.899, which is more than 0.8. Hence the questionnaire was found to be reliable.

Pilot Study: Permission was taken from concern authority. Pilot study was conducted from 04-11-18 to 11-11-18 for a period of 7 day. A sample of 6 alcoholic adult males was selected from the residential areas. The pilot study was feasible in term of time, money, material and resources.

Data Collection: The main study data was gathered from 12th December 2018 to 5th January 2019 Permission was obtained from the Sarpanch of concerned gram panchayat. The samples were approached in small group on a daily basis. Before giving the questionnaire self introduction was given by the investigator and the purpose of the study mentioned. Consent of the samples were taken. The pre-test questionnaire were distributed and collected back after 37 minutes. After collecting the pre-test score, the investigator administrated

the treatment (planned teaching programme on cirrhosis of liver). After 7 days post-test was taken on the same subjects.

Results

Section I: Description on demographic variables of alcoholic adult males

After analysis of demographic variable of the sample the majority of sample 36.7% were 28-37 years age group, 63.3% were married, 50% were Hindu, the area of residence was equal 50% from Rural and 50% from urban, 48.3% were primary education, 35% were private service, 60% were lived in nuclear family, 63.3% had family monthly income between ₹10,001-15,000, 35% were period of consuming alcohol between 5-10 years, 45% were frequency of consuming alcohol per day one, 11.7% were aware of cirrhosis of liver, 71.4% the source of information were health worker.

Section II: Description on pre-test knowledge of alcoholic adult males regarding cirrhosis of liver

Section III: Description on the post-test knowledge of alcoholic adult males regarding cirrhosis of liver

Section IV: Description on the effectiveness of planned teaching program on knowledge of alcoholic adult males regarding cirrhosis of liver.

Section V: Description on association of knowledge scores with selected demographic variables.

Analysis revel that there is association of knowledge score with age, marital status, areas of residence, monthly family income and there is no association of knowledge score with any other demographic variable of alcoholic adult males.

Table 1: Table showing frequency and percentage wise distribution of alcoholic adult males according to their demographic characteristics

N = 60

| S. No | Demographic Variables | Frequency (f) | Percentage (%) | |
|-------|-----------------------|---------------|----------------|------|
| 1 | Age (in years) | 18-27 years | 16 | 26.7 |
| | | 28-37 years | 22 | 36.7 |
| | | 38-47 years | 14 | 23.3 |
| | | ≥48 years | 8 | 13.3 |
| 2 | Marital Status | Married | 38 | 63.3 |
| | | Unmarried | 19 | 31.7 |
| | | Divorced | 2 | 3.3 |
| | | Separated | 0 | 0.0 |
| | | Widower | 1 | 1.7 |

(Contd.)

| S. No | Demographic Variables | Frequency (f) | Percentage (%) | |
|-------|---|-----------------|----------------|------|
| 3 | Religion | Hindu | 30 | 50.0 |
| | | Muslim | 2 | 3.3 |
| | | Christian | 0 | 0.0 |
| | | Buddhist | 22 | 36.7 |
| | | Others | 6 | 10.0 |
| 4 | Area of residence | Rural | 30 | 50.0 |
| | | Urban Slum | 0 | 0.0 |
| | | Urban | 30 | 50.0 |
| 5 | Educational Status | Primary | 29 | 48.3 |
| | | Secondary | 23 | 38.3 |
| | | Graduation | 8 | 13.3 |
| | | Post Graduation | 0 | 0.0 |
| | | Any other | 0 | 0.0 |
| 6 | Occupational Status | Govt. Service | 4 | 6.7 |
| | | Pvt. Service | 21 | 35.0 |
| | | Unemployed | 4 | 6.7 |
| | | Self Employed | 10 | 16.7 |
| | | Labourer | 16 | 26.7 |
| | | Other | 5 | 8.3 |
| 7 | Type of family | Nuclear | 36 | 60.0 |
| | | Joint | 22 | 36.7 |
| | | Extended | 2 | 3.3 |
| 8 | Monthly family income (₹) | <₹10000 | 13 | 21.7 |
| | | ₹10001-15000 | 38 | 63.3 |
| | | ₹15001-20000 | 5 | 8.3 |
| | | ≥₹20001 | 4 | 6.7 |
| 9 | Period of consuming alcohol | <1 years | 4 | 6.7 |
| | | 1-5 years | 15 | 25.0 |
| | | 5-10 years | 21 | 35.0 |
| | | >10 yrs | 20 | 33.3 |
| 10 | Frequency of consuming alcohol per day | One | 27 | 45.0 |
| | | Two | 18 | 30.0 |
| | | Three | 11 | 18.3 |
| | | Four | 4 | 6.7 |
| 11 | Awareness about cirrhosis of liver | Yes | 7 | 11.7 |
| | | No | 53 | 88.3 |
| 12 | Source of information (n = 7) | Family | 1 | 14.3 |
| | | Friends | 1 | 14.3 |
| | | Relatives | 0 | 0.0 |
| | | Health Workers | 5 | 71.4 |
| | | Mass Media | 0 | 0.0 |
| | Any Other | 0 | 0.0 | |

Table 2: Table showing comparison of pre-test and post-test grading score

N = 60

| Grading | Pre-test | | Post-test | |
|-----------|-----------|------------|-----------|------------|
| | Frequency | Percentage | Frequency | Percentage |
| Excellent | 0 | 0.00 | 2 | 3.33 |
| Very Good | 0 | 0.0 | 41 | 68.33 |
| Good | 2 | 3.33 | 17 | 28.33 |
| Average | 37 | 61.67 | 0 | 0.00 |
| Poor | 21 | 35.00 | 0 | 0.00 |

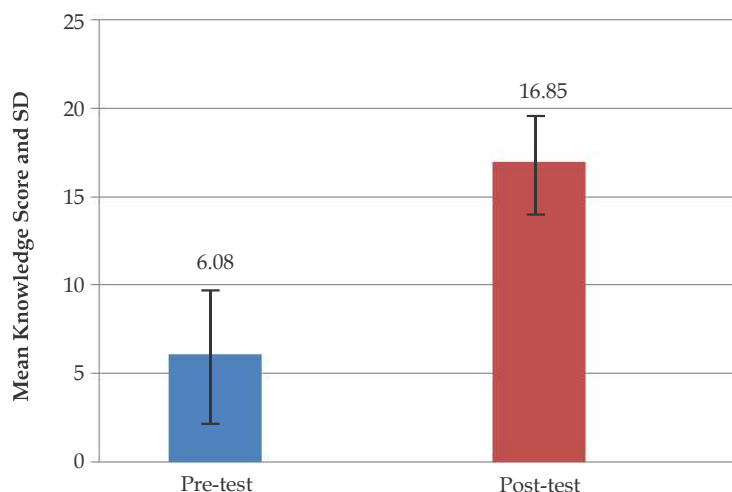


Fig. 2: Bar diagram representing effectiveness of planned teaching programme in knowledge score of pre-test and post-test of alcoholic adult males regarding cirrhosis of liver.

Discussion

Mr. Shivappa Maranabasari, M.Sc (N), have conducted a study to assess the knowledge on dietary management among patients with cirrhosis of liver. The Study was conducted at Victoria Hospital, Lady Curzon & Bowring Hospital. The study involved Pre Experimental one group pre-test and post-test design, and purposive sampling technique was used to draw the samples 50 patients with cirrhosis of liver were interviewed using structured interview schedule. The study revealed that, Majority 33 (66%) of the respondents were in the age group of 35–54 years, 44 (88%) of the respondents were males. Majority of the respondents 42 (84%) were consuming alcohol. 44 (88%) of the respondents have no family history of hepatitis, 35 (70%) of the respondents have 0–12 months of duration of present illness. Regarding effectiveness of planned teaching programme, the overall mean per cent knowledge score in the pre-test was 38.80% and 72.60% in the post-test. The statistical paired *t*-test was significant at 5 percent level for all the aspects under study. There was no significant association between the knowledge scores and selected demographic variables except with age, and type of diet at 5% level ($p < 0.05$). The overall findings of the study clearly showed that the planned teaching programme was significantly effective in improving the knowledge scores of patients with cirrhosis of liver regarding dietary management.¹¹

In above study it is shown that planned teaching programme was effective in increasing the knowledge of patient with cirrhosis of liver. In present study also planned teaching programme

was effective in improving the knowledge of alcoholic adult males regarding cirrhosis of liver as post-test score was greater than pre-test in both study.

Smt. Radhikabai Meghe, M.Sc. Nursing, Department of Medical Surgical Nursing (February-2018), have conducted a study to assess the knowledge regarding alcohol induced cirrhosis of liver among male in selected rural area and to associate the knowledge score with selected demographic variables. Descriptive research approach was used in this study, among 60 male in rural area of Wardha. Structured knowledge questionnaire were used to collect the data. In this study from detail analysis it shows that (18.33%) had poor level of knowledge, (30%) were having average level of knowledge and (11.67%) were having good level of knowledge score and (40%) were having very good level of knowledge and (0%) were having excellent knowledge level. the mean score was 7.43 ± 2.410 and mean percentage of knowledge was 49.53. Only age and types of educational status significant association with demographic variable.¹¹

Above study reveals that age and educational status was associated with the level of knowledge. While in present study also association was found between age, marital status, areas of residence, monthly family income.

Conclusion

The study reveals mean pre-test knowledge score was 6.08 and the mean post-test knowledge

score was 16.95. The calculated t -value 31.43 is greater than tabulated value 2.00 at 0.05 level of significance. Hence it is statistically interpreted that planned teaching program on knowledge regarding cirrhosis of liver was effective. Thus the H_1 is accepted and H_0 is rejected. Analysis also reveal that there is association of knowledge score with age, marital status, areas of residence, monthly family income while none of the other demographic variables were associated with knowledge score.

Implication of the Study

The findings of this study have implications for nursing practice, nursing education, nursing administration, and nursing research

Nursing Practice

- Health care services are an essential component of community health care nursing, the role of the personnel is to conduct the project and participate in national programs to update the knowledge regarding cirrhosis of liver among alcoholic adult males.
- It will also help the nurses to keep update knowledge regarding various aspects of cirrhosis of liver.
- When professional liability is recognized, it defines the parameters of the profession and the standards of professional conduct. Nurses should therefore enhance their professional knowledge.
- The planned teaching programme can be used for imparting knowledge regarding various aspects of cirrhosis of liver to health team members.
- Planned teaching programme would serve as a ready reference material for the health team members. The information is particularly useful for the nurses for educating the alcoholic adult males and other health team members the benefits of cirrhosis of liver.
- The study will help the nurses for coordinating health care services to health care professionals.

Nursing Education

- Nurse who are up to date with the knowledge regarding cirrhosis of liver are the better person to impart their knowledge to the nursing student which will ultimately update the knowledge regarding cirrhosis of liver.
- Now a day, much emphasis is given

on comprehensive care in the nursing curriculum. So this study can be used by nursing teachers as an informative illustration for nursing students.

- Planned teaching programme could help educators to use it as a tool for teaching.
- Students must be given clinical field assignment, in which they must be given opportunity to interact with people and create awareness regarding cirrhosis of liver.
- Teacher training programs must also include the topic of cirrhosis of liver.

Nursing Administration

- Findings of the study can be used by the Nursing Administrator in creating policies and plans for providing education to the staff nurses and health professionals.
- It would help the nursing administrators to be plan and organize in giving continuing education to the nurses and to others for applying and updating the knowledge regarding cirrhosis of liver.
- In-service education must be conducted for the nurses to create awareness regarding cirrhosis of liver.
- The result of the study contributes to the body of knowledge of nursing.

Nursing Research

- The findings of the study have added to the existing body of the knowledge on cirrhosis of liver which will enhance the knowledge and would help to keep it updated.
- Other researchers may utilize the suggestions and recommendations for conducting further study.
- The tool and technique used has added to the body of knowledge and can be used for further references.

Limitation

- The sample size was small to generalize the findings of the study.
- The study was limited to measure the knowledge of alcoholic adult males residing in selected areas of the city.
- The tool for data collection was prepared by investigator herself. Standardized tool was not used.

Recommendations

- A similar study can be replicated on a larger population for a generalization of findings.
- A Study may be conducted to evaluate the effectiveness of planned teaching program versus information booklet on cirrhosis of liver.
- A comparative study can be done to assess the knowledge of cirrhosis of liver in rural and urban areas.
- A descriptive study can be conducted on the awareness of cirrhosis of liver among alcoholic adult males.
- A similar study can be carried out to evaluate the effectiveness of video assisted teaching programme on cirrhosis of liver.

Source of support: Nil

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