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Research Article

A Study to Evaluate the Effectiveness of Planned Educational Intervention on Knowledge Regarding Cirrhosis of Liver among Adolescents in Selected PU Colleges at Vijayapur, Karnataka

Iranna Nippani[1], Rajashekharayya CK[2].

[1]Final Year M.Sc. Nursing Student, Tulza Bhavani College of Nursing, Vijayapur-586101 (Karnataka), India.
[2]Dr. Rajashekharayya CK, HOD/Professor, Department of Medical Surgical Nursing, Tulza Bhavani College of Nursing, Vijayapur-586101 (Karnataka), India.

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Abstract: Background: The natural history of cirrhosis is characterized by an asymptomatic phase, referred to as "compensated cirrhosis," followed by a progressive phase marked by the development of complications of portal hypertension and/or liver dysfunction, designated "decompensated cirrhosis". Decompensation is defined by the development of ascites, portal hypertensive Gastrointestinal (GI) bleeding, encephalopathy, or jaundice. Cirrhosis is distinguished between compensated and decompensated stages, with different features, prognoses, and predictors of death. **Objectives:** (1) To assess the knowledge regarding cirrhosis of liver among adolescents in selected PU colleges at Vijayapur, Karnataka. (2). To determine the effectiveness of planned educational intervention on knowledge regarding cirrhosis of liver. (3). To find the association between knowledge scores with selected socio-demographic variables. **Methodology:** An evaluative study was conducted among 60 adolescents from selected PU colleges at Vijayapur, Karnataka. The research design used for the study was one group pretest post-test research design. **Results:** In the pretest, level of knowledge of adolescents studying in PU colleges of Vijayapur before using Planned education intervention. In that 60(100%) of adolescents were having inadequate knowledge, none of them were having moderate knowledge and none of adolescents were having adequate knowledge about cirrhosis of liver. Where as in the post test, level of knowledge of adolescents in PU colleges at Vijayapur after using planned education intervention. In that 50(83.4%) of adolescents were have adequate knowledge, 10(16.6%) of them have moderate knowledge and none of adolescents have inadequate knowledge. There was a significant gain in knowledge of adolescents on knowledge regarding cirrhosis of liver i.e. 76.01%. The paired 't' test value (tcal = -46.61) at $p<0.05$ level of significance for knowledge proved that the stated hypothesis i.e. the mean post-test knowledge scores of adolescents on cirrhosis of liver will be significantly higher than mean pre-test knowledge scores at 0.05 level of significance. **Conclusion:** The study concluded that the Planned Educational Intervention was more effective for adolescents to increase their knowledge regarding cirrhosis of liver.

Keywords: Evaluate, effectiveness, planned educational intervention, Cirrhosis of liver, adolescents.

Introduction

"Is life worth living? It all depends on the liver."

-William James

According to the World Health Organization, health is "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity". The apparent fullness of this definition carries a powerful intuitive appeal: A comprehensive definition of health should cover all aspects of life, it would seem. However, the WHO definition has been the target of criticism in the medical literature since its first appearance in that organization's constitution in 1948[1].

Disease is any harmful deviation from the normal structural or functional state of an organism, generally associated with certain signs and symptoms and differing in nature from physical injury. A diseased organism commonly exhibits signs or symptoms indicative of its abnormal state. Thus the normal condition of an organism must be understood in order to recognize the hallmarks of disease. Nevertheless, a sharp demarcation between disease and health is not always apparent[2].

Health promotion is a behavioral social science that draws from the biological, environmental, psychological, physical and medical sciences to promote health and prevent disease, disability and premature death through education-driven voluntary behavior change activities[3].

Preventive health, or prophylaxis, consists of measures taken for disease prevention. Disease and disability are affected by environmental factors, genetic predisposition, disease agents, and lifestyle choices and are dynamic processes which begin before individuals realize they are affected. Disease prevention relies on anticipatory actions that can be categorized as primal, primary, secondary, and tertiary prevention. Each year, millions of people die of preventable deaths. A 2004 study showed that about half of all deaths in the United States in 2000 were due to preventable behaviors and exposures. Leading causes included cardiovascular disease, chronic respiratory disease, unintentional injuries, diabetes, and certain infectious diseases. This same study estimates that 400,000 people die each year in the United States due to poor diet and a sedentary lifestyle[4].

Alcoholism has been known by a variety of terms, including alcohol abuse and alcohol dependence. Today, it's referred to as alcohol use disorder. It occurs when you drink so much that your body eventually becomes dependent on or addicted to alcohol. When this happens, alcohol becomes the most important thing in your life. People with alcohol use disorder will continue to drink even when drinking causes negative consequences, like losing a job or destroying relationships with people they love. They may know that their alcohol use negatively affects their lives, but it's often not enough to make them stop drinking[5].

Alcohol withdrawal syndrome (AWS) is the name for the symptoms that occur when a heavy drinker suddenly stops or significantly reduces their alcohol intake. With AWS, you may experience a combination of physical and emotional symptoms, from mild anxiety and fatigue to nausea. Some symptoms of AWS are as severe as hallucinations and seizures. At its most extreme, AWS can be life-threatening[6].

The liver is a large, meaty organ that sits on the right side of the belly. Weighing about 3 pounds, the liver is reddish-brown in color and feels rubbery to the touch. Normally you can't feel the liver, because it's protected by the rib cage. The liver has two large sections, called the right and the left lobes. The gallbladder sits under the liver, along with parts of the pancreas and intestines. The liver and these organs work together to digest, absorb, and process food. The liver's main job is to filter the blood coming from the digestive tract, before passing it to the rest of the body. The liver is also detoxifies chemicals and metabolizes drugs.[7]

Cirrhosis is a chronic disease characterized by replacement of normal liver tissue with diffuse fibrosis that disrupts the structure and function of the liver. The portion of the liver chiefly involved in cirrhosis consists of the portal and the periportal spaces, where the bile canaliculi of each lobule communicate to form the liver bile ducts. These areas become the sites of inflammation, and the bile ducts become occluded with inspissated bile and pus. The liver attempts to form new bile channels;

hence, there is an overgrowth of tissue made up largely of disconnected, newly formed bile ducts and surrounded by scar tissue[8].

Material and Methods

Research approach **:** Evaluative Research Approach.
Research design **:** Pre-experimental; one group pre-test, post-test design.
Research setting **:** Selected PU Colleges at Vijayapur.

Population

Target Population **:** Adolescents.

Sample and sampling technique

Sample **:** Adolescents studying in Selected PU Colleges at Vijayapur.
Sampling technique **:** Purposive sampling technique.
Sample size **:** 60 adolescents.

Criteria for selection of the sample

The criteria for sample selection are mainly depicted under two headings, which includes the inclusion and the exclusion criteria.

Inclusive criteria

The study includes: The Adolescents; who are;

- ✓ Studying in the selected PU colleges at Vijayapur.
- ✓ Co-operative and willing to participate in the study.
- ✓ Available during the time of data collection.
- ✓ Able to read and write English

Exclusion criteria

The study excludes: The adolescents who are;

- ✓ Not co-operative and non-willing to participate.
- ✓ Not available at the time of data collection.

Development of the tool

The tool used for research study was structured knowledge questionnaire which was prepared to assess the knowledge regarding cirrhosis of liver. The tool was formulated on the basis of the experience of the investigator, review of literature, extensive library search and consultation with experts.

Description of the data collection tool

The tool selected for the study was structured knowledge questionnaire which comprised of two sections. They were:

Section I: Socio Demographic Data containing 6 items.

Section II: Structured knowledge questionnaire which consists of 30 items for assessing the knowledge of adolescents regarding cirrhosis of liver. Each correct answer carries 1 mark and incorrect answer carries 0 mark.

Further tool was divided into:

- ✓ Anatomy and physiology of liver
- ✓ Definition about cirrhosis of liver
- ✓ Incidence about cirrhosis of liver
- ✓ Etiology and Risk Factors about cirrhosis of liver

- ✓ Clinical manifestations about cirrhosis of liver
- ✓ Diagnostic evaluation about cirrhosis of liver
- ✓ Management about cirrhosis of liver
- ✓ Prevention on cirrhosis of liver

Development and Description of the planned educational intervention

The script of planned educational intervention was designed and developed by the investigator with the help of review of literature and suggestion of guide and experts. Planned educational intervention was based on following aspects: introduction, definition, Incidence, cause, types, risk factors, Pathophysiology, signs and symptoms, diagnostic evaluations, treatment, complications, prevention of the cirrhosis of liver. For the present study, in order to organize the content of the lesson plan, the literature were reviewed from the books, journals, published and unpublished studies, electronic media and websites. Opinion and suggestions from various experts were also considered for designing Planned Education Intervention.

Results

Findings related to socio-demographic variables of subjects

Maximum of the subjects 35(58.3%) of the adolescents were in the age group of 18-21years, and 17(28.4%) of them were in the age group of 22-25, and very few 8(13.3%) were aged 26 and above. Maximum of the subjects 35(58.3%) of the study participants were males, and remaining 25(41.7%) were females. Maximum of the subjects 37(61.7%) of adolescents were hindu, followed 16(26.7%) were muslims, 4(6.7%) were christians, and very few 3(5.0%) were belongs to other caste. Maximum of the subjects 28(46.7%) were belongs to the joint family, 24(40.0%) of the study participants were belong to nuclear family, 5(8.3%) had single parent, and very few 3(5.0%) were belongs to the extended family.

Maximum of the subjects 23(38.3%) of the study respondents were from semi-urban area, 20(33.4%) were from urban area and remaining 17(28.3%) were belongs to the rural area. Maximum of the subjects 25(41.6%) of the respondents heard about liver cirrhosis through MHEP, 16(26.7%) through print media, 10(16.7%) through ICE programme, and remaining 9(15.0%) through electronic media.

Analysis and interpretation of knowledge scores of subjects who have participated in the study regarding cirrhosis of liver.

Table 1. The pre-existing level of knowledge of adolescents regarding cirrhosis of liver

S. No.	Level of knowledge	Frequency	Percentage
1	Inadequate	60	100.0
2	Moderately adequate	00	00
3	Adequate	00	00
Total		**60**	**100.0**

From table 1, it was seen that level of knowledge of the adolescents were inadequate before PTP, majority 60(100%) of them had inadequate knowledge and none of them had moderately adequate knowledge regarding liver cirrhosis. and none of them had adequate knowledge regarding liver cirrhosis.

Table 2. Frequency and percentage distribution of knowledge scores of subjects of adolescent regarding liver cirrhosis

S. No.	Test	Pretest	%	Posttest	%
1	Inadequate	60	100.0	00	00
2	Moderately adequate	00	00	10	16.6
3	Adequate	00	00	50	83.4

From table 2, it was seen that level of knowledge of the adolescents were inadequate before PTP, whereas after PTP majority 50(83.4%) of them had adequate knowledge and remaining 10(16.6%) had moderately adequate knowledge regarding liver cirrhosis. Hence planned teaching program had increased level of knowledge.

Table 3. Comparison of pretest and post knowledge score of adolescent regarding cirrhosis of liver

Pretest-*Posttest	Paired Differences			t	df	Sig. (2-tailed)
	Mean	Std. Deviation	S.E Mean			
	-18.73	3.11	0.40188	-46.61	59	0.000 (S)

Table 3 showed that mean difference in knowledge level of the study respondents regarding liver cirrhosis was -18.7 with standard deviation of 3.11 and its t-value was equal -46.61 which was highly significant as its p-values was less than 0.05. Hence planned Education Intervention was effective in increasing the knowledge.

Testing of hypothesis

Mean difference in knowledge level of the study respondents regarding liver cirrhosis was-18.7 with standard deviation of 3.11 and its t-value was equal -46.61 which was highly significant as its p-values was less than 0.0001. Hence planned teaching program was effective in increasing the knowledge.

Analysis and interpretation of data to find out an association between pre-test knowledge scores of subjects with their selected socio demographic variables

There was no association between socio-demographic variables and knowledge level. Hence H_1 Is accepted.

Recommendations

a) The similar study can be repeated on larger scale for better generalizations of the findings.
b) A similar study can be undertaken by utilizing other domains like attitude and practice.
c) The study can be conducted in various settings.
d) A comparative study may be conducted to find out the knowledge of other adolescents.
e) An experimental study can be conducted with control group.
f) A study can be carried out to evaluate the efficacy of various teaching strategies like information booklet, video assisted teaching programme.
g) The study emphasizes the significance of short term and in service education programmes for the adolescents regarding cirrhosis of liver.

Conflicts of interest

The authors declare that they have no competing interest.

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