International Journal of Advance Research in Medical Surgical Nursing

E-ISSN: 2663-2268
P-ISSN: 2663-225X
IJARMSN 2024; 6(1): 20-25
Received: 25-11-2023
Accepted: 30-12-2023

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A study to evaluate the effectiveness of structured teaching program on knowledge regarding healthy lifestyle practices to prevent cancer among degree students at selected colleges, Bangalore

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DOI: https://doi.org/10.33545/surgicalnursing.2024.v6.i1a.163

Abstract
Aim: A study to evaluate the effectiveness of Structured Teaching Programmed (STP) on knowledge regarding healthy lifestyle practices to prevent cancer among degree students at selected college, Bangalore.
Methods: An evaluative approach with pre experimental – one group pretest and posttest design and convenient sampling technique was used to select 60 degree students from selected colleges, Bangalore. The Structured Knowledge Questionnaire was administered to assess the pretest knowledge and STP was administered by the researcher. On the 8th day post test was conducted by using the same tool. Each subject took 35 minutes to complete the knowledge questionnaire. The data was analyzed by using paired and unpaired t test to find the effectiveness and chi square test was used to find the association with demographic variables.
Results: The data reveals that majority of the respondents in the pretest, 40 (66.9%) had inadequate knowledge followed by 20 (33.3%) had moderate knowledge, while none of them had adequate knowledge regarding healthy lifestyle practices to prevent cancer. In the posttest 58 (96.7%) had adequate knowledge regarding healthy lifestyle practices to prevent cancer followed by 2(3.3%) of degree students had moderately adequate knowledge and there were none with inadequate knowledge. The overall mean percentage for pretest score was 48% (14.40) and the overall mean percentage for post test score was 37.1% (11.13).overall improvement with the calculated 't' value24.67 which is found to be statistically significant at the level of $p<0.05$.Chi square test revealed that there is statistically significant association found between the pretest knowledge score of degree students with selected demographic variable age in years at level of $p<0.05$. Hence, the researcher accepted the research hypothesis (H_2) with regard to the above variable.
Interpretation and Conclusion: The study shows that an overall improvement and an enhancement of knowledge in all the aspects regarding healthy lifestyle practices among degree students. Hence the research hypothesis stated that, there is a significant difference between pretest and posttest level of knowledge of staff nurses regarding healthy lifestyle practices to prevent cancer was accepted.

Keywords: STP, Degree College Students, prevention of cancer, structured self-administered questionnaire, healthy lifestyle practices

Introduction

There are many factors contributing to the degeneration of health among many people today. Chronic diseases of lifestyle are a group of diseases that share risk factors such as unhealthy dietary choices, smoking, and lack of physical exercise, sedentary behavior and life-stress. These results in high morbidity and mortality due to cardiovascular and cerebrovascular problems, diabetes, cancer, stroke, dementia, osteoporosis, mental illness and obesity. With industrialization in the world and modernization of life the incidences of cancer is growing day by day in the society [1]. Cancer; the word instills fear and sense of dejection, cancer is simply an uncontrolled growth of non-functional cells. These changes are the result of person's genetic factors and three categories of external agents such as physical carcinogens, chemical Carcinogens and biological carcinogens. Cancer affects the body as well as the mind. Most of the causes are modifiable except some which are heredity [2].

According to World Cancer Report, Geneva, cancer rates could further increase by 15 million by the year 2020. According to WHO in 2010, approximately 826000 people died in India due to cancer. Cancer Research UK has found that around 1, 34,000 cancer each year are the result of a poor lifestyle. Unhealthy western lifestyle could lead to a huge surge in the number of cancer cases across the world. A new study claims that the number could increase by as much as 75% in the next two decades. A healthy life style and public health action by governments and health practitioners could lay emphasis on the preventive trend [3].
The objectives of the study are to assess the existing knowledge regarding selected healthy lifestyle practices to prevent cancer among degree students, evaluate the effectiveness of structured teaching program, and to find an association between the pretest knowledge scores of degree students with selected socio-demographic variables.

Need for the study

According to the World Health Report 2011, oral cancer accounted for 7.1 million deaths in 2010 and it is estimated that the overall number of new cases will rise by 50% in the next 20 years. Oropharyngeal cancer is more common in developing countries. The prevalence of oral cancer is particularly high among men. It is the eighth most common cancer worldwide. Incidence rates for oral cancer vary in men from 1 to 10 cases per 100 000 population in many countries. In South-Central Asia, cancer of the oral cavity ranks among the three most common types of cancer [6]. In 2012, International agency for research on cancer reported that in India, tobacco-related cancers represented around 42% of male and 18% of female cancer deaths. Cervical, stomach and breast cancers accounted for 40% of cancer deaths in women in rural and urban areas. Thus, interventions such as tobacco control, human papillomavirus (HPV) vaccination, cervical cancer screening along with early detection and treatment of oral and breast cancer can have a substantial impact in India in averting future cancer deaths [7]. A report from Kidwai Memorial Institute of Oncology, Bangalore estimated that there would be about 1.5 lakhs cancer cases at any given time in Karnataka out of 3which 35,000 cases of oral cancer are estimated. Karnataka stands first in oral cancer than any other state as far as consumption of tobacco is concerned [8].
According to the 2009 National Vital Statistics Report, cancer is the second leading cause of death in the United Sates. Researchers have determined that consuming a diet low in fruits, vegetables, and whole grains is a common risk factor associated with the risk of developing several types of cancer including stomach, colorectal, breast, and pancreatic. National cancer institute incidence and mortality estimated that, 40,250 new cases of oral cancer will be diagnosed in the United States in 2012, and an estimated 7,850 people will die of the disease. This form of cancer accounts for about 3% of cancers in men and 1.5% of cancers in women [9]. In 2011, Cancer Research in UK has found around 1, 34,000 cancer cases each year are the result of a poor lifestyle. Red meat consumption led to 2.7% of cancers, i.e. almost 8,500 cases. Obesity was linked to more than 5% of cancers or almost 18000 cases, including a third of uterine cancers. The researchers predict that the number of cancer cases across the world could raise from 12.7 million new cases in 2008 to 22.2 million new cases in 2030. Developing and poor countries would face the brunt of this surge as more and more people are adopting "unhealthy western lifestyle". A healthy diet could prevent around 80,000 cancers every year [11].
It is found that the high risk in deaths and complication due to use of poor lifestyle practice with varied degree of knowledge among students were significant so, investigator felt that it is necessary to create awareness by structured teaching program regarding healthy lifestyle practices to prevent cancer in college students, because if further part of their 8life will be involved with unhealthy practices it may lead to cancer. It is strongly recommended that the Western Diet be replaced with smaller portion sizes, more fresh fruits, vegetables and whole grains, less meat-based meals and more fish, poultry and vegetarian-style meals.

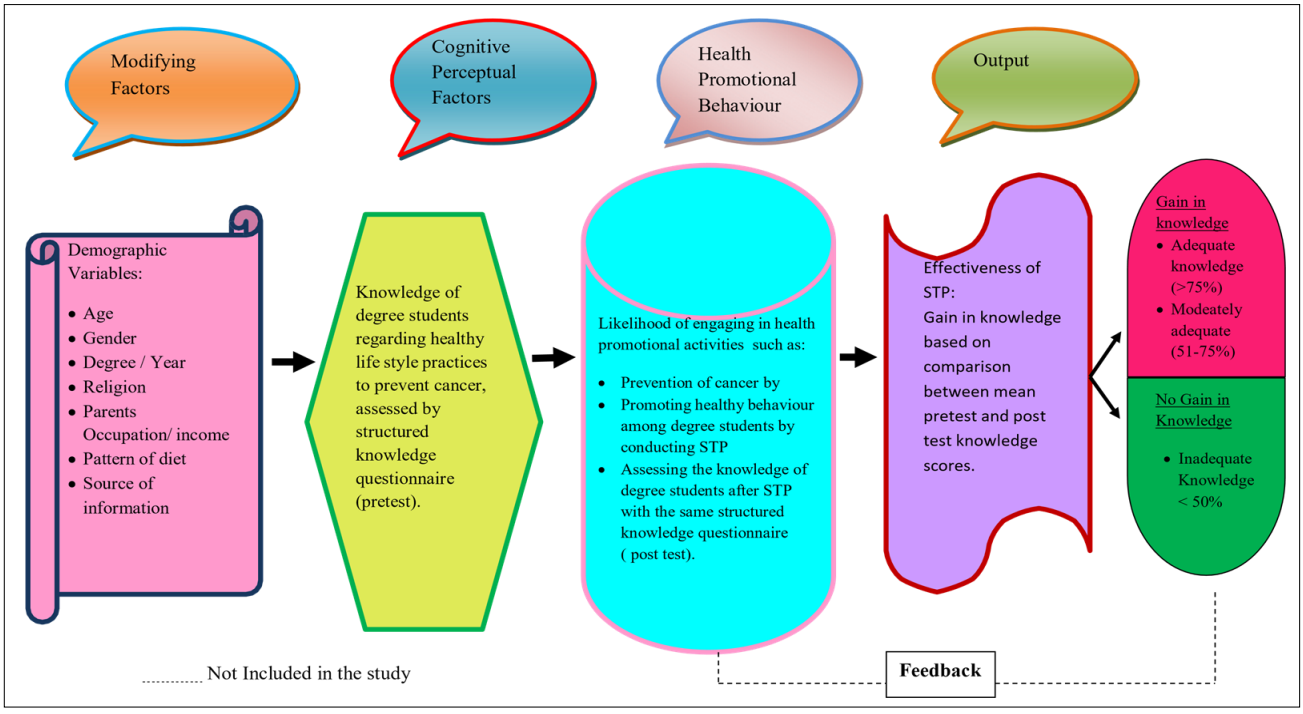

Fig 1: Conceptual frame work based on Pender's health promotion model (1996).

Objectives of the study

- Assess the existing knowledge regarding healthy life style practices to prevent cancer among degree students.
- Develop and administer structured teaching program regarding healthy lifestyle practice to prevent cancer.
- Evaluate the effectiveness of structured teaching program regarding healthy lifestyle practices by comparing mean pre and post-test knowledge scores among degree students.
- Determine an association between mean pretest knowledge scores regarding.

Hypotheses

H1: The mean post-test knowledge scores of the degree students regarding healthy lifestyle practices to prevent cancer is significantly higher than their mean pre-test knowledge scores.

H2: There is a significant association between the mean pre-test knowledge scores of degree students regarding the healthy lifestyle practices to prevent cancer with their selected socio demographic variables.

Assumptions

1. Degree students improve their health and prevent the occurrence of cancer on the basis of cognitive information they possess.
2. Structured teaching program is an accepted teaching strategy that can improve the knowledge of degree students regarding healthy lifestyle practices to prevent cancer.
3. The knowledge of degree students regarding healthy lifestyle practices to prevent cancer can be assessed.

Research approach

Research approach is an umbrella that covers the basic procedure for conducting research. A quantitative evaluative research approach was considered to be the most appropriate and adopted to assess the effectiveness of Structured Teaching Programmed on knowledge regarding healthy lifestyle practices to prevent cancer among degree students in selected college, Bangalore.

Research design

In the present study, Quasi- experimental one group pre and post-test design was selected for the study.

The primary objective of the study was to find the effectiveness of Structured Teaching Programmed

The design chosen for the study is presented in the figure

Group	Pre-test	Intervention	Post-test
	O_1	X	O_2

Setting

The investigator selected Lowry Memorial College. The reason for selecting this college was the investigator's interest and availability of the required sample were also considered while selecting the study group.

Variables

Independent Variable: In this study the independent Variable refers to Structured Teaching Programmed on knowledge regarding healthy lifestyle practices to prevent cancer, to improve the knowledge of degree students.

Dependent Variable: In the present study it refers to knowledge of Degree students regarding Healthy lifestyle practices to prevent cancer.

Population: The population of the present study includes the degree students those who are studying in Lowry Memorial College, Bangalore

Sample: Sample size of the present study consists of 60 Degree students studying in Lowry Memorial College, Bangalore.

Sampling Technique: Purposive sampling technique was adopted to select the samples for the present study based on inclusion criteria.

Sampling Criteria Inclusion criteria: The study includes the "Degree Students":

- Who are willing to participate in the study.
- Who are available during the period of data collection.
- Who are in 1st and 2nd year of their course.
- Who are studying in BBM, BCA, BCOM, BBA.

Exclusion criteria

- Studying in 3rd year degree.
- Not willing to participate.
- Studying other courses than mentioned above.
- Attended any workshop within 6 months of period regarding healthy lifestyle.
- Practices to prevent cancer.

Development of the tool

After an extensive review of literature, discussion with the guide and the various experts in the field of nursing and based on the investigator's personal experience the self-administered Structured Knowledge Questionnaire on healthy lifestyle practices to prevent cancer.

Description of the tool

Structured knowledge questionnaire consists of 2 parts i.e. Part I and Part II.

Part I: Socio-demographic proforma.

Consists of 9 items in demographic variables like, age, sex, religion, degree course, academic year, parent's occupation, parent's income, pattern of diet and source of information.

Part II: Structured knowledge questionnaire

Consists of 30 knowledge items related to healthy lifestyle practices to prevent cancer which include 5 subsets for this Part.

Section A: Anatomy and physiology of Gastro-intestinal Tract (3) items.
Section B: General information of cancer (3) item.
Section C: oral, stomach and colon cancer (11) items.
Section D: Healthy lifestyle practices (13) items.

Method of data collection

After obtaining the formal permission from the Academic Dean of Lowry College, Bangalore. The main study was conducted from 1st November 2013 to 30th November 2013 among 60 subjects are selected by purposive sampling

technique. The investigator given self-introduction explained the purpose of the study, subjects willingness to participate in the study was ascertained. The subjects are assured anonymity and confidentiality of the information provided by them and written informed consent was obtained. After that structured knowledge questionnaire was administered to assess the pretest knowledge then STP was conducted. On the 8th day post test was conducted by using the same tool. Each subject took 35 minutes to complete the knowledge questionnaire.

Results

Presentation of data: The analyzed data has been organized and presented in the following sections

Section 1: Description of distribution of socio-demographic variables of the in relation to age, sex, religion, degree course, academic year, parent's occupation, parent's income, pattern of diet and source of information.

Section 2: Analysis and interpretation of pre-test knowledge scores.

Section 3: Analysis and interpretation of post-test knowledge scores.

Section 4: Analysis and interpretation of effectiveness of STP by comparing mean pre and post- test knowledge scores regarding healthy lifestyle practices to prevent cancer among degree students.

Section V: Analysis and interpretation of association between the selected socio demographic variables and the pre-test knowledge scores.

Description of sample characteristics

The study findings demonstrated that, majority of students 78.3% (47 out of 60) were in the age group of 18-20 years followed by 21.7% (13 out of 60) were in the age group of 21-23 years. Out of 60 students majority of students 58.3% (35 out of 60) were male and 41.7% (25 out of 60) were female. Out of 60 respondents 78.3% (47 out of 60) were belong to Christian religion, 18.3% (11 out of 60) were belong to Hindu religion, 1.7% (1 out of 60) was belong to Muslim religion and 1.7% (1 out of 60) was belong to other religion. Out of 60 respondents 36.7% (22 out of 60) were studying in BCA, 33.3% (20 out of 60) were 101studying in BCOM, 21.7% (13 out of 60) were studying in BBM and 8.3% (5 out of 60) were studying in BBA. Out of 60 students 50.0% (50 out of 60) were in first year and 50.0% (50 out of 60) were in second year. According to parent's occupation, 15.0% (9 out of 60) were doing business, 30.0% (18 out of 60) were doing agriculture, 11.7% (7 out of 60) were doing professional and 43.3% (26 out of 60) were doing of other occupation. Among the total respondents 53.3% (32 out of 60) of parents income was Rs.5000-Rs.10000, 25% (15 out of 60) were earning Rs.10001-Rs.15000 and 21.7% (13 out of 60) were earning Rs.15001 and above. Among the total respondents 73.3% (44 out of 60) have mixed diet, 10.0%(6 out of 60) have non vegetarian and 16.7% (10 out of 60) have vegetarian. Out of 60 respondents 58.3% (35 out of 60) got information regarding healthy lifestyle practices to prevent cancer through mass media, 28.3% (17 out of 60) got information from Health professional, 6.7% (4 out of 60) got information from parents and relatives and 6.7% (4 out of 60) got information from others.

In the present study it is observed that the mean pre-test knowledge scores of degree students regarding healthy lifestyle practices to prevent cancer was inadequate. About 66.7% (40 out of 60) had inadequate knowledge. The remaining 33.3% (20 out of 60) had moderately adequate knowledge. It is alarming to observe that none of them had adequate knowledge regarding healthy lifestyle practices to prevent cancer. The finding of the present study was also supported, by the study conducted by Loo, Jo Lin. It reveals that, majority of the students had low awareness (94.4%) and knowledge (64.9%) scores, regarding healthy lifestyle practices to prevent cancer.

In the present study the comparison of pre-test and post-test mean knowledge scores of degree students regarding healthy lifestyle practices to prevent cancer showed an enhancement mean of 11.13 and the observed mean percentage 90 enhancement score was found to be 37.1% with SD +

11.65. When a paired 't' test was done the obtained 't' value was 24.671 (t59 DF=1.96) at 0.05 level significances from this it can be inferred that the structured teaching programmed is effective in enhancing the knowledge of degree students. The finding of the present study also supported by the findings of the study conducted by Sidaveerappa Balappa Tuppad. The study results shows that the overall mean percentage knowledge score in the pre-test was 33.8% and 69.28% in the post test. The statistical paired 't' test indicates that enhancement in the mean percentage knowledge score was found to be significant at 5 percent level for all the aspects under study. The overall findings of the study clearly showed that the STP was significantly effective in improving the knowledge scores of high school students regarding ill effects of smoking. It was evident that there was statistically significant association between the knowledge score with demographic variables like age, religion, degree course, parent's occupation, parent's income, pattern of diet and source of information at the level of $p<0.05$.

Conclusion

In the present study it was observed that in the post test, 96.7% (58 out of 60) of sample had adequate knowledge (> 75% scores). About 3.3% (2 out of 60) respondents had moderately adequate knowledge (51-75% scores) and none of them had inadequate knowledge (< 50% scores) in the post test. The result shows that after structured teaching programmed all the students gained moderately adequate to adequate knowledge. The obtained 't' value is 24.671 (t59 DF=1.96) at 0.05 level of significance indicating significant difference in the knowledge level before and after the STP. Hence the research hypothesis H_1 was accepted.

Conflict of Interest

Not available

Financial Support

Not available

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How to Cite This Article
Murthy R. A study to evaluate the effectiveness of structured teaching program on knowledge regarding healthy lifestyle practices to prevent cancer among degree students at selected colleges, Bangalore. International Journal of Advance Research in Medical Surgical Nursing. 2024;6(1):20-25.