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Knowledge regarding health hazards of soft drinks among nursing college students

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Abstract
Health is multi factorial. The factors which influence health it's both cutting the individual and externally in the society which he or she lives. Soft drinks are the drinks consist of water with added sugar and flavoring with some fruit juices or fruit homogenates. The most widely consumed products contain a flavored mixture in carbonated water; the coals are the major beverages of this kind. The nutritional role of these beverages is essentially limited to marking the consumption of water attractive while the carbohydrate they contain contributes energy.

Objectives: 1) To assess the knowledge of health hazards on soft drinks among nursing students. 2) To find out the association between level of knowledge on health hazards of soft drinks and with demographic variables among nursing students.

Methodology: A quantitative research approach with descriptive research design was adopted to assess the knowledge on health hazards of soft drinks among nursing college students. The study conducted at Chaitanya College of nursing, Ongole, and Andhra Pradesh, India. Total 100 students were selected by Purposive sampling technique. Structured questionnaire was prepared on health hazards of soft drinks and administer to each sample individually. The collected data was coded and entered in excel spread sheet, windows version 2010 for further data analysis. Data analysis was completed by objectives of the study and with the help of descriptive and inferential statistics.

Results: It reveals that majority 60(60%) had inadequate knowledge, 29(29%) students had moderately adequate knowledge and 11(11%) students had adequate knowledge on health hazards of soft drinks with Mean 11.81 and Stranded deviation 4.75.

Conclusion: The study indicates that, among 100 samples majority of the students had inadequate knowledge regarding health hazards of soft drinks. The study strongly recommends that, there should be a need to bring awareness among nursing college students on health hazards of soft drinks in order to prevent health complications among the nursing students.

Keywords: Health hazards, soft drinks, nursing college students

Introduction

Health is a common theme in most cultures. In some cultures, health and harmony are considered equivalent, harmony being defined as "Being at peace with the self, the community, god and cosmos [1]. Health is a multi-factorial. The factors which influence health it's both cutting the individual and externally in the society which he or she lives [2]. Some soft drinks have been suggested to have a harmful effect on the dental and general health of people including children and adolescents [3]. The high content of sugar and acids, which have cariogenic and acid genic potential, can contribute to dental caries, tooth erosion, as well as contributing to health effects such as overweight and obesity and may be associated with an increased risk of type 2 diabetes [4].

Assumption: The students of Chaitanya College of nursing may not have knowledge about health hazards of soft drinks.

Delimitations: The study is delimited to: Students of Chaitanya College of nursing, Ongole, Andhra Pradesh. The study is delimited to students available at the time of data collection, A sample size of 100 only.

Conceptual Frame Work

The major element of the theory of goal attainment are seen in the inner personals system in which two people, who are usually stronger, came together in a health care organization to help and be helped to maintain a state at health that permits functioning in roles [5]. These concepts are interrelated in every teaching institution.

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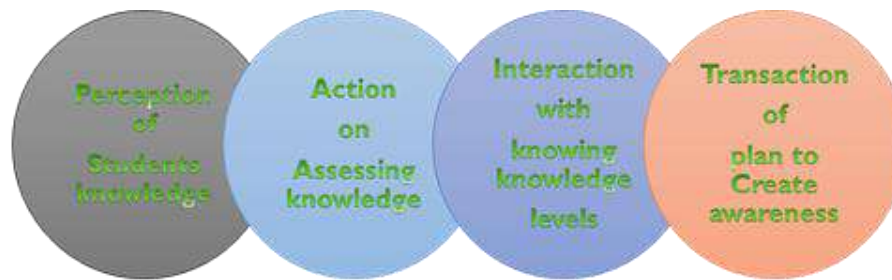Pradesh, India

The concepts of the theory are

Fig 1: Conceptual framework on Goal attainment theory.

Perception: Perception is "each person's representation on one importing of energy from the environment and organizing it by information transforming energy, processing information, steering information and exporting in the form at event behavior [5]. Here perceiving students' knowledge on health hazards of soft drinks.

Action: The action refers to the activity to active the goal what the individual perceives. In this study, it is natural goal setting is to assess the knowledge regarding health hazards of soft drinks among students in Chaitanya college of nursing, Ongole, Andhra Pradesh, India. The Investigator prepares the standard knowledge questionnaire to assess the knowledge of students regarding health hazards of soft drinks [6].

Interaction: Interaction refers to the perception and communication between a person and the environment can between two or more persons. In this study the investigator administer the standard knowledge questionnaire to assess the knowledge regarding health hazards of soft drinks and knowing the knowledge levels among nursing students in Chaitanya College of nursing, Ongole, and Andhra Pradesh, India.

Transaction: Transaction is a process of interaction in which human being communicate with the environment to achieve goals that are directs human behaviors. In this study the investigator plan to create awareness among nursing students on health hazards of soft drinks, if investigator identifies inadequate knowledge among nursing students [8].

Methodology
A quantitative research approach was utilized to explore the knowledge regarding health hazards of soft drinks among nursing students in Chaitanya College of nursing, Ongole, and Andhra pradesh.
A non-experimental descriptive research design was used for the study. The study was conducted in Chaitanya College of nursing, Ongole. The college have all facilities like sufficient teaching and non – teaching staff, classrooms, seminar hall, library with spacious sitting arrangements, reading rooms, various subject laboratories for clinical demonstrations and other facilities like sports, Transportation and hostel facilities. The students who are studying in Chaitanya College of nursing, Ongole are included in the study and those who met the inclusion criteria. The total sample size was 100 which are selected by purposive sampling technique.

Sampling Criteria
Inclusion Criteria
The students who are from: Chaitanya College of nursing, who are willing to participate in the study; Available during the time of data collection.

Exclusion Criteria
The students who are: Not willing to participate in the study; who are studying in other colleges.

Research Variables
The knowledge of nursing college students regarding health hazards of soft drinks.

Demographic Variables
The demographic variables such as Age, Soft drink which prefer, Amount of consumption of soft drink, Duration of consumption of soft drink, Dietary habits, Source of information, pervious knowledge about health hazards of soft drinks.

Description of the Tool
The research tool was prepared with the help of extensive review from various text books, journal and internet. The tool is developed to assess the knowledge regarding health hazards of soft drinks. The tool is divided in to two parts. [9]

Part I: Demographic variables of nursing students
It consist of nursing students Age, Soft drink which prefer, Amount of consumption of soft drink, Duration of consumption of soft drink, Dietary habits, Source of information, Previous knowledge about health hazards of soft drinks.

Part II: Structured questionnaire on health hazards of soft drinks
It consists of 25 questions to assess the health hazards of soft drinks among nursing students in Chaitanya College of nursing, Ongole, and Andhra pradesh.

Scoring Key
There is a total 25 questions on health hazards of soft drinks. Each question has four options with one appropriate answer and each right answers carries 1 mark and wrong answers carries 0 mark, the maximum score of the tool was 25 and the minimum score of the tool was 0 and the score was given to the samples of the study according to the score interpretation which was explained in the Table: 1- score interpretation on knowledge of health hazards of soft drinks.

Score Interpretation

Table 1: Score interpretation on knowledge of health hazards of soft drinks

Category	Score	Percentage
Adequate	>17	>70%
Moderately adequate	9 -16	50 – 70%
Inadequate	0-8	<50%

Content Validity

The tool was given to experts in academic researchers in the field of nursing for the validation of the tool and accordingly necessary tool corrections were done as per expert opinions and corrected tool was used for the study to assess the knowledge on health hazards of soft drinks among nursing students.

Reliability

Reliability of the study tool was analyzed by split half method. The reliability value was 0.9, so the instrument was reliable can be used for the assessment of knowledge levels on health hazards of soft drinks among nursing students.

Feasibility

The tool was tested for the feasibility by conducting the pilot study among nursing students in Chaitanya college of nursing, Ongole, Andhra Pradesh, India.

Pilot Study

Initially the formal permission obtained from the concerned authority of Chaitanya College of nursing, Ongole, Andhra Pradesh, India. The pilot study was conducted from 21- 4 -16 to 23-4 -16 in Chaitanya college of nursing, Ongole, Andhra Pradesh, India. The study Samples were selected by purposive sampling technique. The confidentiality of shared information was assured and consent was obtained from the study subjects. 10 study samples were selected and structured questionnaire was administered to the samples. Each Sample was taken nearly 30 minutes to complete the tool. The collected data was analyzed by descriptive and inferential statistics. Based on pilot study results was concluded that tool is reliable for conducting the main study for assessing the nursing students knowledge on health hazards of soft drinks.

Data Collection Procedure

The data collection procedure was done for a period of 2 weeks, from 28 – 04 – 16 to 10 -05-16 after obtaining the permission from the higher authority of Chaitanya college of nursing, Ongole, Andhra Pradesh, India. The study was conducted with 100 samples and selected by using non-probability purposive sampling technique, students who full filled the inclusion criteria were selected. The purpose and benefits of the study was explained to the students.

The structured questionnaire was used to assess the knowledge of students regarding health hazards of soft drinks.

The data collection procedure was done for a period of 2 weeks and questionnaire was administered for about 30 minutes for each nursing student. Each day 6 or 8 sample was selected between 9am to 1pm. The collected data transferred in to the master excel spread sheet, windows version 2010. After analysis, the data was organized and presented in the form of tables and figures.

Plan for Data Analysis

The data was analyzed in terms of objectives of the study by using descriptive statistics and inferential statistics [10].

Descriptive Statistics

Frequency, Percentage distribution: Distribution of socio demographic variables of Chaitanya College of nursing students.

Mean and standard deviation: To determine the level of knowledge regarding health hazards of soft drinks among Chaitanya college of nursing students.

Inferential Statistics

Chi- square test: To find out the association between the levels of knowledge regarding health hazards of soft drinks among Chaitanya College of nursing students with their socio demographic variables. The data collected from 100 Chaitanya College of nursing students were entered in master coding sheet and analyzed by descriptive and inferential statistics which are necessary to prove a substantive of results and in relation to the objectives of the study.

Section – I

Frequency and percentage distribution of demographic variables of Chaitanya College of nursing students.

Section - II

Frequency and percentage distribution of level of knowledge regarding health hazards of soft drinks among Chaitanya College of nursing students.
Mean and standard deviation of knowledge levels on health hazards of soft drinks among Chaitanya College of nursing students.

Section – III

Association between the knowledge regarding health hazards of soft drinks among Chaitanya College of nursing students and with the socio-demographic variables.

Results

Section I: Demographic Variables of Nursing Students
Frequency and percentage distribution based on age of Chaitanya College of nursing students: (N=100).
The frequency and percentage distribution of age of Chaitanya College of nursing students identifies that 1(1%) student belong to < 18 years, 62(62%) belong to 19 – 20 years, 36(36%) belong to 21 – 22 years and 1(1%) belong to > 23 years of age.

Frequency and percentage distribution based on types of soft drink preferred among Chaitanya College of nursing students. (N=100)
The frequency and percentage distribution on type of soft drink preferred by Chaitanya college of nursing students that, 7 (7%) nursing students are consuming coca cola, 16(16%) are consuming Pepsi, 26(26%) are consuming thumps up and 51(51%) are consuming maza.

Frequency and percentage distribution based on amount of consumption of soft drinks among Chaitanya College nursing students: (N=100).
The frequency and percentage distribution on amount of consumption of soft drink explains that, 33(33%) were

consuming 1 full bottle, 55(55%) were consuming ½ bottle, 6(6%) were consuming more than one bottle and 6(6%) were consuming ¾ bottle.

Frequency and percentage distribution based on consumption of soft drink among Chaitanya College of nursing students: (N=100).
The frequency and percentage distribution on amount of consumption of soft drink explores that, 9 (9%) students are consuming soft drink daily once, 26 (26%) are consuming weekly once and 65 (65%) are consuming monthly once.

Frequency percentage distribution based on type of dietary habit of Chaitanya College of nursing students: (N=100).
 Frequency and percentage distribution of type of dietary habit explains that 10(10%) were vegetarians and 90(90%) were non-vegetarians.

Frequency and percentage distribution based on source of information among Chaitanya College of nursing students: (N=100).
Frequency and percentage distribution of source of information about soft drink reveals that, 12(12%) students got information from books and journals, 16 (16%) received from newspaper, 57(57%) received from Mass media and 15(15%) received from parents/ relatives.

Frequency and percentage distribution based on previous knowledge about health hazards of soft drink among Chaitanya College of nursing students: (N=100).
Frequency and percentage distribution on previous knowledge about health hazards of soft drinks identifies that Majority of the students 84(84%) had knowledge about health hazards of soft drinks, 16(16%) of them had no knowledge on health hazards of soft drink.

Section II
Frequency and percentage distribution on level of knowledge regarding health hazards of soft drinks among Chaitanya College of nursing students: (N=100).
Table: 2- Frequency and percentage distribution on level of knowledge regarding health hazards of soft drinks among Chaitanya College of nursing students.

Knowledge	Frequency (f)	Percentage (%)
Adequate	11	11
Moderately Adequate	29	29
Inadequate	60	60
Total	100	100

It explores that majority of 60(60%) students had inadequate knowledge, 29(29%) students had moderately adequate knowledge and 11(11%) students had adequate knowledge on health hazards of soft drinks.
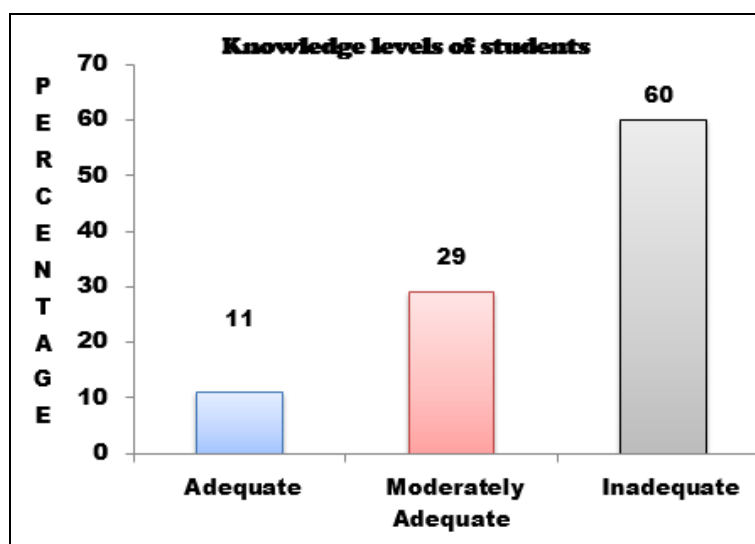

Fig 2: Knowledge levels on soft drinks among Chaitanya College of nursing students.

Mean and standard deviation of knowledge of health hazards of soft drinks among Chaitanya College of nursing students. (N=100)

Table 3: Mean and standard deviation of knowledge of health hazards of soft drinks among Chaitanya College of nursing students. (N=100)

SL. No	Criteria	Mean	Standard Deviation
1.	Knowledge Score	11.81	4.75

It identifies that distribution of mean and standard deviation on knowledge levels on health hazards of soft drinks, the Mean was 11.81 and standard deviation was 4.75.

Section III: Association between the level of knowledge on health hazards of soft drinks and socio demographic variables
It explains that, there is no significant association between level of knowledge on health hazards of soft drinks and socio demographic variables such as Age, types of soft drink, amount of consumption, duration of consumption of soft drink, types of dietary habits, source of information, previous knowledge about health hazards of soft drink.

Discussion on major findings of the study
Age: It shows with regard age of Chaitanya College of nursing students that, 1(1%) belongs to < 18 years, 62(62%) belong to 19 – 20 years, 36(36%) belong to 21 – 22 years and 1(1%) belong to > 23 years of age.

Soft drink preference: It explains regarding type of soft drink preferred for nursing students that,7(7%) nursing students are consuming coca cola, 16(16%) are consuming pepsi, 26(26%) are consuming thumps up and 51(51%) are consuming maza.

Amount of consumption of soft drink: It explains with regard to amount of consumption of soft drink that, 33 (33%) were consuming 1 full bottle, 55(55%) were consuming ½ bottle, 6(6%) were consuming more than one bottle and 6(6%) were consuming ¾ bottle.

Duration of consumption of soft drink: It explains with regard to duration of consumption of soft drinks that, 9(9%) nursing college students are consuming daily once, 26(26%) are consuming weekly once and 65(65%) are consuming monthly once.

Dietary habit: It explains with regard to dietary habits that, 10 (10%) were vegetarians and 90(90%) were non – vegetarians.

Source of information about soft drinks
It explains with regard to the frequency and percentage distribution of source of information about soft drink that, 12 (12%) nursing students got information received from books and journals, 16 (16%) received from newspaper, 57(57%) received from Mass media and 15(15%) received from parents / relatives.

Previous knowledge about health hazards of soft drinks: It explains with regard to the frequency and percentage distribution of previous knowledge about health hazards of soft drink that, Majority of the college students had knowledge about health hazards of soft drink was 84(84%) and 16(16%) of them had no knowledge on health hazards of soft drink.

The level of knowledge on health hazards of soft drinks among Chaitanya College of nursing students: It reveals that, among 100 samples, the majority of 60(60%) were had inadequate level of knowledge, 29(29%) students had moderately adequate level of knowledge and 11(11%) of students had adequate level of knowledge on health hazards of soft drinks.

Knowledge levels of health hazards of soft drinks among Chaitanya College of nursing students in terms of Mean and SD:
It reveals with regards of distribution of Mean and Standard deviation on knowledge levels of health hazards of soft drinks among nursing students that, Knowledge Mean was 11.81 and standard deviation was 4.753.

The association of level of knowledge on health hazards of soft drinks and demographic variables among Chaitanya College of nursing students
It shows that there is no significant association between level of knowledge on health hazards of soft drinks and socio demographic variables such as Age, types of soft drink, amount of consumption, duration of consumption of soft drink, types of dietary habits, source of information, and previous knowledge about health hazards of soft drink.

Major Findings of the Study-Description fof Demographic Data of Chaitanya College of Nursing Students
Majority of the respondents among nursing students that, 62(62%) were between the age group of 19 – 20 years of age; 51(51%) preferred to consume Maza drink; 55(55%) were consuming ½ bottle of soft drink; 65(65%) were consuming soft drink monthly once; 90(90%) were non vegetarians; 57(57%) were getting source of information about soft drink from mass media; 84(84%) have knowledge about health hazards of soft drinks; 60 (60%) have inadequate knowledge regarding health hazards of soft drinks, There is no significant association between knowledge and socio demographic variables.

Implications of The Study: The effective way to improve the knowledge of nursing students on health hazards of soft drinks by providing continuing education and conducting seminars and workshops [11]. Educate the nursing students about health hazards of soft drinks. Educate the nursing students to control the use of soft drinks [12].

Nursing Administration: The administration should organize in-service education and workshops on health hazards of soft drinks and to improve the knowledge of nursing students. The nursing administration should develop certain plans and policies to improve the knowledge of nursing students regarding health hazards of soft drinks [13].

Nursing Education: Should organize awareness programmes, discussions, seminars, and workshops can be conducted for improving the knowledge of nursing students regarding health hazards of soft drinks. [14] Education helps the nursing students to develop more insight on health hazards of soft drinks and control the usage of soft drinks. Educational programmers should emphasis more on teaching the nursing students to improve the knowledge regarding health hazards of soft drink [15].

Nursing Research: Extensive research can be carried out to identify the knowledge of health hazards of soft drinks among nursing students [16]. The findings of the study can be disseminated through print journals as well as e-journals.

Student Practice Activities: The students can utilize the knowledge on health hazards of soft drinks to improve the health status of the students [18].

Recommendations for Future Research: The similar study can be conducted to a large no of samples in different settings. An experimental study can be conducted to identify the effectiveness of teaching programmes on the basis of knowledge of nursing students regarding health hazards of soft drinks [19]. A comparative study can be done to assess the knowledge regarding health hazards of soft drinks among nursing students with other category student's also [20].

Discussion
The present study was compared with the similar study and discussed the findings of the study. A study conducted by Frederick Vuvor, etal. on knowledge, practice and perception of taking soft drinks with food and the metabolic

effects on high school students in Ghana in the year of 2017. Background information of students indicated that 141 of the students (51.6%) were females while 132 of the students (48.4%) were males. The students are between the ages of 10 to 14 years of ages. Almost half (44.6%) of the students thought the consumption of soft drinks with food was not a healthy practice, whereas the BMI of the students for different age groups.BMI classifications of the students BMI based on their sex and the number of nutrients mentioned. It can be concluded from this study that majority of the students had some knowledge on the consumption of the soft drinks with food. However they had little knowledge on the nutrients contained in soft drinks. Majority of them also knew the nutritional implications of taking soft drinks with food. The present study results are : It reveals that majority 60(60%) had inadequate knowledge, 29(29%) students had moderately adequate knowledge and 11(11%) students had adequate knowledge on health hazards of soft drinks with Mean 11.81 and Stranded deviation 4.75. The study indicates that, among 100 samples majority of the students had inadequate knowledge regarding health hazards of soft drinks. The study strongly recommends that, there should be a need to bring awareness among nursing college students on health hazards of soft drinks in order to prevent health complications among the nursing students.

Conclusion
In the present study the following conclusion were drawn from findings of the study. The study indicates that, among 100 samples majority of the students had inadequate knowledge regarding health hazards of soft drinks. The study recommends that, there should be a need to bring awareness among all nursing students in various categories on health hazards of soft drinks in order to prevent complications among the nursing students.

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