



A COMPARATIVE STUDY TO ASSESS THE KNOWLEDGE REGARDING DRUG ABUSE AND ITS IMPACT ON HEALTH BETWEEN URBAN AND RURAL ADOLESCENTS IN SELECTED HIGH SCHOOLS OF GOKAK TALUK WITH A VIEW TO DEVELOP AN INFORMATION BOOKLET

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Abstract

Background of the study: Adolescence is the most important and labile phase of human life cycle. Approximately 18-20% of Indian population constitute of age group between 10-20 years. These future citizens are at great risk for early initiation to drugs and other psychoactive substances. Nurses have an important role in assessing their knowledge regarding drug abuse in Schools, and also in community area regarding drug abuse.

STATEMENT OF THE PROBLEM

“A comparative study to assess the knowledge regarding drug abuse and its impact on health between urban and rural adolescents in selected high schools of Gokak taluk with a view to develop an information booklet”.

Objectives of the study

- 1.To assess the knowledge of urban and rural adolescents regarding drug abuse and its impact on health.
- 2.To compare the level of knowledge between urban and rural adolescents regarding drug abuse and its impact on health.
- 3.To find out the association between knowledge scores of adolescents regarding drug abuse and its impact on health with the selected socio-demographic variables.
- 4.To develop and distribute information booklet regarding drug abuse and its impact on health.

Methodology: A Descriptive comparative study was conducted among 100 (50 urban and 50 rural) adolescent students of selected High schools of Gokak taluk. Sample was selected using Non-probability; purposive sampling technique. Descriptive comparative research design was used for the study. Data was collected

by structured knowledge questionnaire. Data Analysis was done using descriptive and inferential statistics.

Results: Overall result of the study revealed that, majority of the subjects 72 (72%) had poor knowledge, 28 (28%) subjects had average knowledge and 0 (0%) subjects had good level of knowledge regarding drug abuse and its impact on their health. And urban adolescents had 49.93% of total knowledge, 51.56% of knowledge regarding drug abuse and 47.50% of knowledge regarding knowledge about hazards, treatment of drug abuse. Whereas rural adolescents had 44.66% of total knowledge, 48.67% of knowledge regarding drug abuse and 38.67% of knowledge regarding knowledge about hazards, treatment of drug abuse. The p-value is 0.0004($p < 0.05$) hence,

comparatively Urban adolescents had better knowledge than their Rural counterparts in all areas of knowledge regarding drug abuse and its impact on their health.

Conclusion: The study concluded that, knowledge of adolescent students regarding drug abuse and its impact on health was just satisfactory, consequently formal training for adolescent students about drug abuse and its impact on health is recommended.

Keywords: Knowledge, drug abuse, impact on health, Adolescents, high school students.

Introduction

"Every time I draw a clean breath, I'm like a fish out of water."

-- Narcotics anonymous.

Adolescents aged 10-19 years constitute about 21% of India's population which in absolute numbers translates to 253 million. The increasing share of adolescents and youth in India's population can translate into a demographic dividend only if policies and programmes focus on the health and well-being of this large, yet very vulnerable population.¹

Adolescence is a crucial period for the beginning and experimentation with new things. The situation of drug abuse in adolescence is becoming a global health problem and is reaching at alarming position in India. Therefore, the researches on substance abuse have also been receiving attention in developing countries like India because of changing trends in the prevalence of substance use and the rising magnitude of the problem. When the adolescents first experiment with drugs, people perceive that it has much adverse effects over their life and if continuous it may become necessity for user to feel normal. They may continue to take drugs even though it may cause tremendous problems for themselves. The drug abuse is an illness which can be characterized as destructive use of substance that causes many serious health related and social behavior problems. Psychological behavior changes associated with substance abuse may be mood disorder such as depression, anxiety, thought disorders such schizophrenia as well as personality disorder like antisocial personality traits. In adolescence it is a major problem defining the future of the youth in both developed and developing countries.²

June 26 is celebrated as International Day against Drug Abuse and Illicit Trafficking every year. It is an exercise undertaken by the world community to sensitize the people in general and the youth in particular, to the menace of drugs. The picture is grim if the world statistics on the drugs scenario is taken into account. With a turnover of around \$500 billion, it is the third largest business in the world, next to petroleum and arms trade. About 190 million people all over the world consume one drug or the other. Drug addiction causes immense human distress and the illegal production and distribution of drugs have spawned crime and violence worldwide.

Millions of drug addicts, all over the world, are leading miserable lives, between life and death.³

Adolescence is the critical period when the first initiation of substance use takes place. Among the youth, students are particularly involved due to increasing academic pressures. The encouragement by peer groups, the lure of popularity and easy availability of many such substances like alcohol, tobacco (cigarettes and gutkha) and other drugs make a teenager an easy prey. In India approximately 5500 children and adolescents start using tobacco products daily, some as young as 10 years old. The majority of users have first use tobacco prior to the age of 18 years.⁴

India too is caught in this vicious circle of drug abuse, and the numbers of drug addicts are increasing day by day. According to a UN report, One million heroin addicts are registered in India, and unofficially there are as many as five million. Inhalation of heroin alone has given way to intravenous drug use, that too in combination with other sedatives and painkillers. This has increased the intensity of the effect, hastened the process of addiction and complicated the process of recovery. Cannabis, heroin and Indian-produced pharmaceutical drugs are the most frequently abused drugs in India. Cannabis products often called charas, bhang, or ganja are abused throughout

the country because it has attained some amount of religious sanctity because of its association with some Hindu deities. The International Narcotics Control Board in its 2002 report released in Vienna pointed out that in India persons addicted to opiates are shifting their drug of choice from opium to heroin.³

Need for the study

" If current trends continue, 250 million children alive today will be killed by tobacco."
-- World Health Organization

Adolescence is a transitional stage of physical and psychological human development generally occurring between puberty and legal adulthood. Substance use disorders are a major public health problem facing many countries among adolescents. The most common substance of abuse/dependence in patients presenting for treatment is alcohol. Alcoholism is called a "dual disease" since it includes both mental and physical components. Long-term alcohol abuse can cause a number of physical symptoms, including cirrhosis of the liver, pancreatitis, epilepsy, polyneuropathy, alcoholic dementia, heart disease, nutritional deficiencies, peptic ulcers and sexual dysfunction and can eventually be fatal.⁵

Studies reveals that drug use among young people between the age group 14-18 years have typically employed students or special high risk groups rather than general samples. The results indicated that cannabis was the most frequently used drug. Factors associated with drug problems were: being older, living in cities, not participating in religious activities and being a worker rather than a student. Very few of those with problems had been treated or felt the need for any treatment.⁶

Studies have consistently demonstrated that Adolescents have high rates of substance abuse, which has been associated with deleterious effects on mood, attention, and behavior. The findings presented here that it is imperative to improve the detection of substance abuse and treatment of sleep problems in children and adolescents. By treating sleep disturbances and targeting poor sleepers with additional counseling and education regarding the risk of substance use, clinicians may be able to prevent or delay the adverse effects of addiction.⁷

Use of alcohol and other drugs is associated with the leading causes of death and injury (e.g., motor-vehicle crashes, homicides, and suicides) among teenagers and young adults; for example, nearly half of all deaths from motor-vehicle crashes in this age group involve alcohol use.⁸

Use of alcohol, tobacco and other drugs is a worldwide problem and affects many children and adolescents. The use of opiates, cannabis, tobacco and alcohol have been well recognized for centuries in India and the use of drugs and alcohol within the context of religious beliefs and local traditions has been historically documented. Children and adolescents are exposed to alcohol, cannabis products and tobacco product. Several risk factors and protective factors have been identified. In India the use of pan masala, and home brewed products containing marijuana and alcohol have special significance. Pan Masala is shown to have carcinogenic, genotoxic and clastogenic properties. The pediatrician can play a vital role in the appropriate recognition and early referral.⁹

According to an article published in the Indian Express news daily, in the last five years, the number of drug abuse cases in females and youngsters in the age group of 14-16 years has increased substantially. College students not only take drugs but are also peddling drugs these days for easy money. The drugs are easily available at cheap rates in slum areas. Every month the rehabilitation centers gets 40 cases of drug abuse—the reasons ranging from social anxiety, fights with parents, stress, nuclear families and social constructs. Earlier the cases of drug abuse were in the age group of 35-40 but now the cases starting from 14 years itself. There has been a substantial rise - 70 per cent in youth and 50 per cent in the cases of females. Whenever the rehabilitation centres has approached educational institutes to conduct awareness programmes, they have refused due to the fear that such programmes will expose their students to drugs.¹⁰

The incidence of drug abuse among children and adolescents is higher than the general population. This is notably because youth is a time for experimentation and identity forming. In developed countries drug abuse among youth is generally associated with particular youth subcultures and lifestyles. This causes an acceptance by members of the subcultures of drugs and their use. In Asia figures of drug abuse are hard to find but after cannabis, Amphetamine type Stimulants (ATS) are the most commonly used amongst children and youth. There have been various studies carried out in the region regarding drug abuse. A 1996 study of eight cities in seven provinces of China showed that over a half of heroin abusers are below 25 years of age. A school survey conducted in 1999 among students aged 12 to 21 years, in Vientiane, reported 4.8 per cent lifetime abuse for Amphetamine type stimulants.

In India a Non-governmental organisation survey revealed that 63.6 % of patients coming in for treatment were introduced to drugs at a young age below 15 years. According to another report 13.1% of the people involved in drug and substance abuse in India, are below 20 years. Heroin, Opium, Alcohol, Cannabis and Propoxyphene are the five most common drugs being abused by children in India. A survey shows that of all alcohol, cannabis and opium users 21%, 3% and 0.1% are below the age of eighteen. An emerging trend about child drug abusers is the use of a cocktail of drugs through injection, and often sharing the same needle, which increases their risk of HIV infection. Overall 0.4% and 4.6% of total treatment seekers in various states were children.

The problem in India is there are no sensitization programmes about drug abuse in schools or for children out of school. India does not have a substance abuse policy. There is also a high incidence of charging children under the Narcotic Drugs and Psychotropic Substances (NDPS) Act, 1985. Children who at times do have access to high quality drugs will use volatile substances easily found in corner stores such as cough syrups, pain relief ointments, glue, paint, gasoline and cleaning fluids. There are very few to no health centers that deal with child substance abuse problems, especially in the rural areas. The use of tobacco is another major concern amongst children. In India 20 million children a year and nearly 55,000 children a day are drawn into a tobacco addiction. The number is shocking when compared to the 3000 a day new child smokers in the US.

In 2008, Childline India Foundation published a study on substance abuse amongst children in Manipur. The study found a wide spread prevalence and acceptance of drug use from heroin to the most common Spasmo Proxyvon. The high use of intravenous drugs is accompanied by sharing of needles and hence a high prevalence of HIV/AIDS.¹¹

The investigator observed that the adolescents are at high risk for drug abuse. This has lead the researcher to take on the exclusive research topic on drug abuse. Adolescents are the future citizen of our country, the researcher felt that there is a need to know the knowledge of the adolescents about the drug abuse and should educate them for improving their knowledge regarding drug abuse and its health hazards. Hence the investigator has taken up comparative study on knowledge regarding drug abuse and its impact on health among urban and rural adolescents.

Research methodology

Research methodology refers to the master plan specifying the methods and procedure for collecting and analyzing the needed information in a research study.

Research methodology in the present study includes the following: research approach, research design, research setting, population, sample selection and sampling techniques, the exclusion and the inclusion criteria, development and description of knowledge questionnaire, content validity, pilot study, procedure of data collection and a plan for data analysis.

Research approach

The research approach helps the researcher to understand the method for collecting data and analyzing it. It also suggests the possible conclusions to be drawn from the data.

In view of the nature of the problem selected and the objectives to be accomplished, descriptive approach was considered appropriate for the present study.

Research design

The research design is a blueprint for conducting the study that maximizes control over factors that can interfere with the validity of the findings. It is an overall plan investigator used to obtain valid answers to research questions.

The research design used for the present study was descriptive comparative research design.

The variables for present study were:

Study variables: Knowledge regarding drug abuse and its impact on health

Attribute variables: Gender, Age, religion, type of family, family income, habitat, history of drug abuse and source of information.

Research setting

Setting refers to the area or physical location where the study is being conducted.

The present study was conducted in following High schools of Gokak taluk.

- Shri KRH English Medium High School, Mallapur (PG) Ghataprabha.
- Shri Saraswati Kannada Medium High School, Dhupadal Tq: Gokak Dt: Belagavi.

Population

Population refers to the aggregation of all the units in which a researcher is interested. In others words, population is a set of people or entities to which the results of a research can be generalized.

Target population

It refers to the population that the researcher wishes to study and make generalizations.

In the current research study, the target population comprises Adolescent students of selected High schools of Gokak taluk.

Sample

A subset of population selected to participate in a research study is known as sample²⁹. In the present study, the sample consists of Adolescent students of Shri KRH English Medium High School, Mallapur (PG) Ghataprabha and Shri Saraswati Kannada Medium High School, Dhupadal Tq: Gokak Dt: Belagavi.

Sample size

The sample size for the study was 100, 50 from Urban residence and 50 from Rural residence.

Sampling technique

The researcher in the present study selected target population through Non-probability – purposive sampling technique.

Criteria for selection of samples

The criteria for selection of samples in this study involves:

Inclusion Criteria:

Adolescent high school students who are:

- 1.Willing to participate in the study.
- 2.Who can communicate in Kannada or English .

Exclusion Criteria:

Adolescent high school students who are:

- 1.Sick during time of data collection.
- 2.Who are absent during data collection.

Selection and development of the tool

Based on the objectives of the study, a structured knowledge questionnaire regarding drug abuse and its impact on health was prepared by the researcher for the present study.

The following steps were carried out during the preparation of the tool:

- 1.Literature review on knowledge regarding drug abuse and its impact on health.
- 2.Discussion with the experts in the field of nursing.
- 3.Informal discussion with the teachers.
- 4.Preparation of the blueprint
- 5.Preparation of first draft of tool
- 6.Validation of the tool by experts
- 7.Reliability check of the tool
- 8.Final draft of the tool.

Description of the tool

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

Section I: Socio demographic data: This part consists of 08 items for obtaining information about socio demographic variables such as age, gender, religion, family income, type of family, habitat, history of drug abuse and source of information.

Section II: Structured Knowledge Questionnaire: This part consists of 30 items for obtaining level of knowledge of adolescent students regarding drug abuse and its impact on health. Each correct answer carries 1 mark and incorrect answer 0 marks.

PART A: 18 Items on knowledge regarding general information on drug abuse. **PART B:** 12 Items on knowledge regarding hazards, treatment of drug abuse.

Validity of the tool

Tool was validated by the experts in the field of Child health Nursing, Paediatric Medicine and other health care professionals and the members of the research committee of Shri JGCHS College of Nursing, Ghataprabha. The experts were requested to review and verify the items on knowledge questionnaire. There was a consensus among the experts regarding the items. Hence, the minor mistakes which needed correction were corrected and incorporated as per the directions of the research committee and the suggestions given by validators.

Reliability of the tool

The tool was tested for reliability on ten adolescent high school students during pilot study by using split half method, test-retest method and applying spearman's brown Prophecy formula. The reliability of knowledge questionnaire was $r = 0.808$. Hence the tools were found to be reliable.

Pilot study

Administrative approval for a pilot study was obtained from the Head Masters of Shri KRH English Medium High School, Mallapur (PG) Ghataprabha and Shri Saraswati Kannada Medium High School, Dhupadal Tq: Gokak Dt: Belagavi.

The pilot study was conducted from 04.06.2018 to 09.06.2018.

The purposes of the pilot study were:

- a)To evaluate the tool constructed
- b)To find out the feasibility of conducting the final study
- c)To determine the method of statistical analysis

The investigator selected ten samples using non- probability purposive sampling technique. The pre test was administered by using structured knowledge questionnaire. The data was collected and analysed using descriptive and inferential statistics.

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The findings of the pilot study revealed that, 04 (40%) subjects had good knowledge, 04 (40%) subjects had average knowledge and 02 (20%) subjects had poor knowledge regarding drug abuse and its impact on health.

Procedure of data collection

The research investigator had taken formal permission from the Head Masters of Shri KRH English Medium High School, Mallapur (PG) Ghataprabha and Shri Saraswati Kannada Medium High School, Dhupadal Tq: Gokak Dt: Belagavi. The main study was conducted in the month of June 2018 at respective High Schools of Gokak taluk among 100 adolescent high school students.

The method used for data collection was as follows:

- 1.The investigator introduced himself and explained the purpose of study to adolescent high school students of Selected High Schools of Gokak taluk .
- 2.The written consent was obtained from the participants.
- 3.The pre-test was conducted by using structured knowledge questionnaire regarding drug abuse and its impact on health.
- 4.The collected data was tabulated and analyzed.

Data analyses plan

The data obtained were analyzed in terms of the objectives of the study using descriptive and inferential statistics. The plan of the data analysis was developed under the excellent direction of the experts in the field of nursing and statistics. The plan of the data analysis was as follows:

- 1.Organization of the data on the master sheet
- 2.Tabulation of the data in terms of frequency, percentage, mean, standard deviation and range to describe the data.

3.Classify the knowledge scores as follows:

- Good knowledge -- 24- 30 Score
- Average knowledge -- 16- 24 Score
- Poor knowledge -- 01-15 Score

4.Inferential statistics used to draw the following conclusions

- a)Chi-square test to find out association between the knowledge scores and their selected socio demographic variables.
- b)t-test for Comparison of urban and rural adolescents knowledge scores.

This chapter on research methodology has thus described about the various activities planned and carried out by the research investigator during the course of his dissertation.

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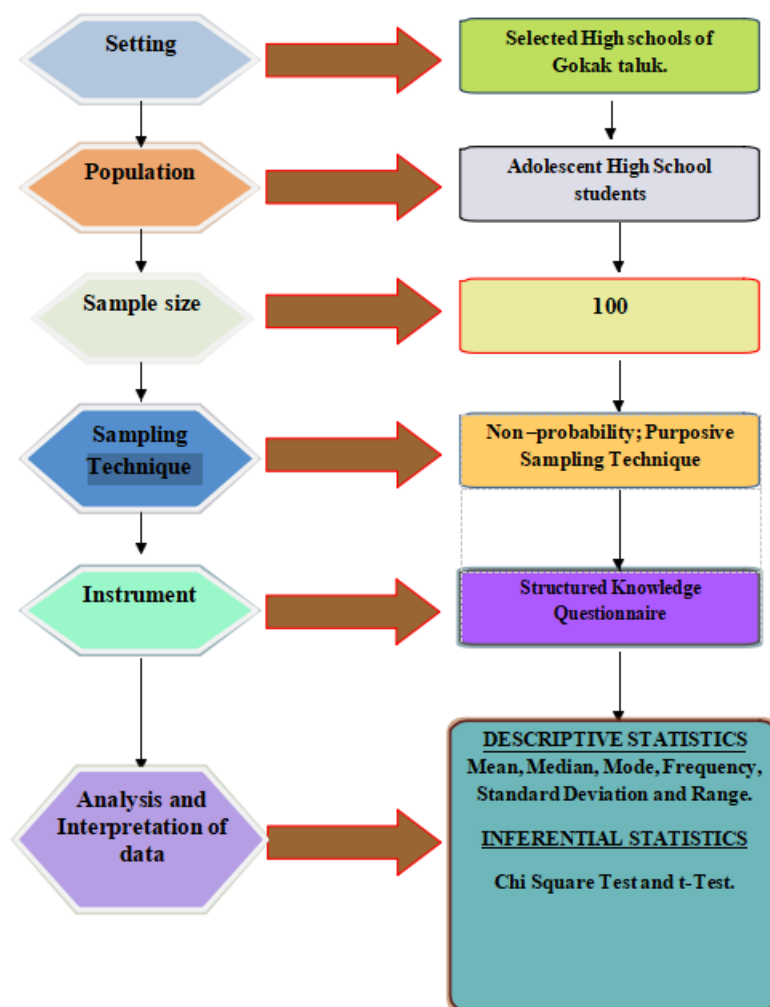


FIG 3: Schematic representation of research process

ANALYSIS AND INTERPRETATION OF DATA

Data analysis and interpretation is the organisation and synthesis of research and testing of research hypothesis using those data. In order to find a meaningful answer to the research questions, the collected data must be processed, analysed in some orderly coherent fashion, so that patterns and relationships can be discussed. 30

Analysis and interpretation of the data is based on the following objectives of the study:

OBJECTIVES OF THE STUDY

- 1.To assess the knowledge of urban and rural adolescents regarding drug abuse and its impact on health.
- 2.To compare the level of knowledge between urban and rural adolescents regarding drug abuse and its impact on health.
- 3.To find out the association between knowledge scores of adolescents regarding drug abuse and its impact on health with the selected socio-demographic variables.
- 4.To develop and distribute information booklet regarding drug abuse and its impact on health.

HYPOTHESES

H1 - There will be a statistically significant difference between knowledge scores of urban and rural adolescents regarding drug abuse and its impact on the health at 0.05 level of significance.

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H2 - There will be a statistically significant association between knowledge scores of adolescents regarding drug abuse and its impact on the health with the selected demographic variables at 0.05 level of significance.

Presentation of the data:

The data was presented under the following sections:

Section I: Distribution of sample characteristics according to demographic variables.

Section II: Analysis and interpretation of knowledge scores of adolescent students regarding drug abuse and its impact on health.

Section III: Comparison of level of knowledge scores between urban and rural adolescent high school students .

Section IV: Association of knowledge scores of adolescent students regarding drug abuse and its impact on health with selected demographic variables.

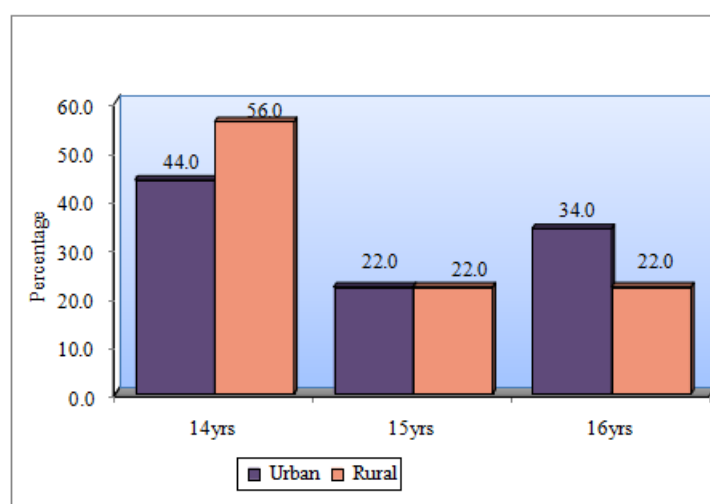
Section I: Distribution of sample characteristics according to demographic variables.

Table No. 1: Distribution of urban and rural respondents with different demographic characteristics. N= 100 (50+50)

Demographic Variables		Urban Adolescents		Rural Adolescents	
		Frequency	%	Frequency	%
1. Age	14 Years	22	44.00	28	56.00
	15 Years	11	22.00	11	22.00
	16 Years	17	34.00	11	22.00
2. Gender	Male	28	56.00	29	58.00
	Female	22	44.00	21	42.00
3. Religion	Hindu	47	94.00	39	78.00
	Muslim	2	4.00	4	8.00
	Others	1	2.00	7	14.00
4. Family Income	< 10,000	26	52.00	27	54.00
	10,001- 15,000	13	26.00	14	28.00
	15,001- 20,000	3	6.00	1	2.00
	>20,001	8	16.00	8	16.00
5. Type of Family	Nuclear	37	74.00	24	48.00
	Joint	13	26.00	26	52.00

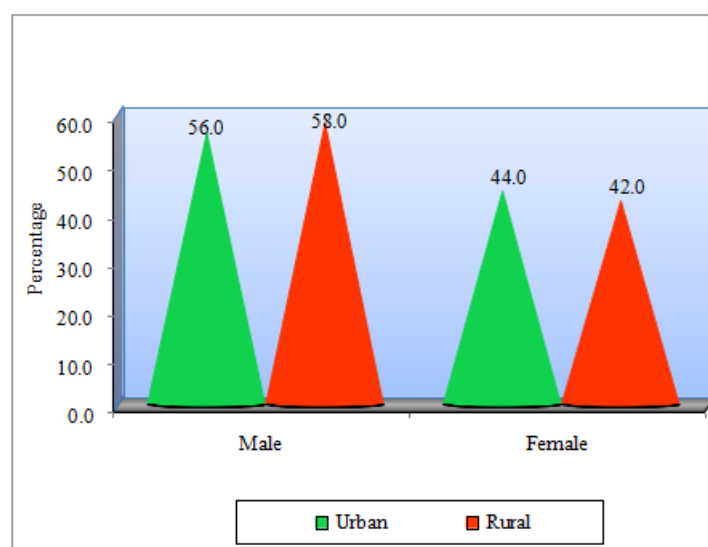
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6. History of Drug Abuse.	Yes	7	14.00	6	12.00
	No	43	86.00	44	88.00
7. Source of Information	Print Media	11	22.00	7	14.00
	Electronic Media	11	22.00	3	6.00
	New age Media	11	22.00	9	18.00
	Peer Group & Social Circle	8	16.00	18	36.00
	Health Professionals	9	18.00	13	26.00



Graph: 1. Percentage distribution of urban and rural respondents by age groups

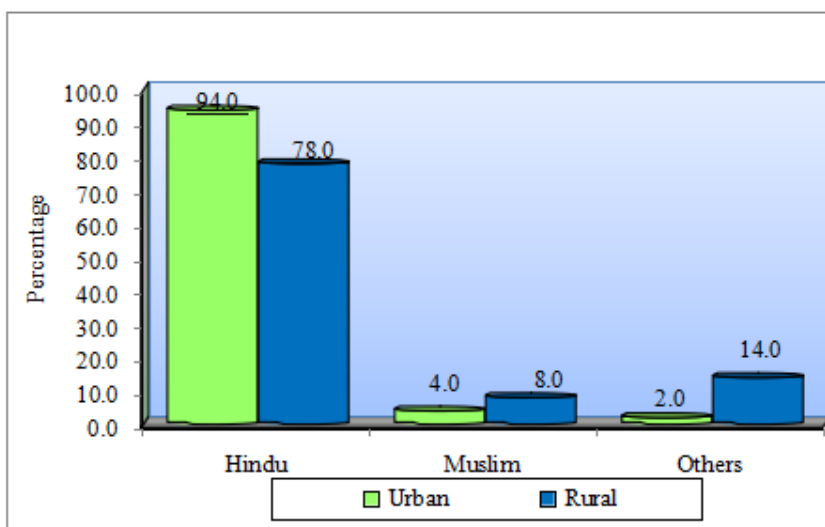
The above table 1 and graph 1 reveals that 44% and 56% of the children were in the age group of 14 years, 22% and 22% of them are in the age group of 15 years and remaining 34% and 22% are in the age group of 16 years in the Urban and Rural area respectively.



Graph 2: Percentage distribution of urban and rural respondents by gender

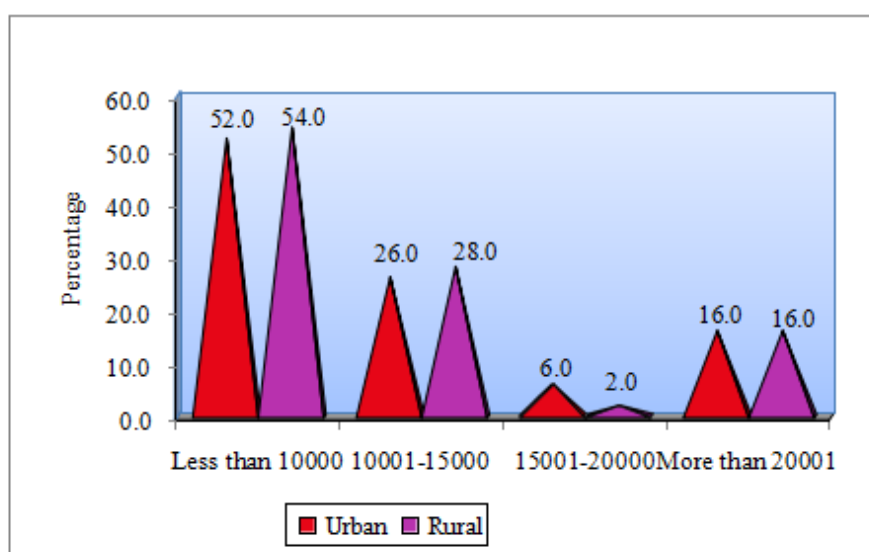
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The data presented in the above table 1 and graph 2 reveals that 56% male children were from urban area and 58% of males belongs to rural area. Among female adolescents 44% are from urban area and 42% were from rural area.



Graph: 3. Percentage distribution of urban and rural respondents by religions

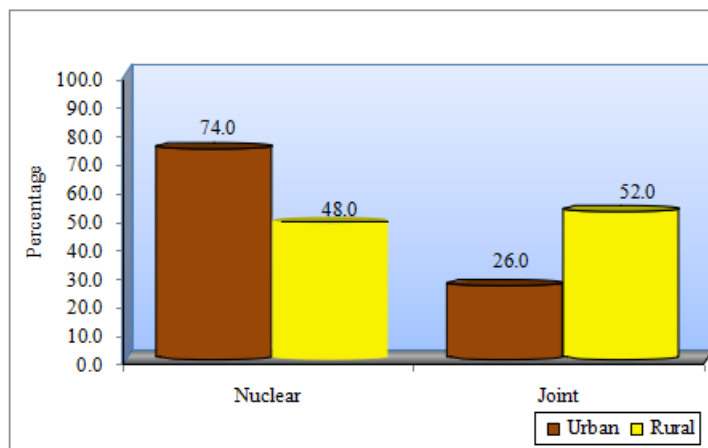
The above table 1 and graph 3 reveals that 94% of urban and 78% of rural adolescents belong to Hindu religion, 4% of urban and 8% of rural adolescents belong to Muslim religion and 2% of urban and 14% of rural adolescents belong to other religion.



Graph: 4. Percentage distribution of urban and rural respondents by Family income/month.

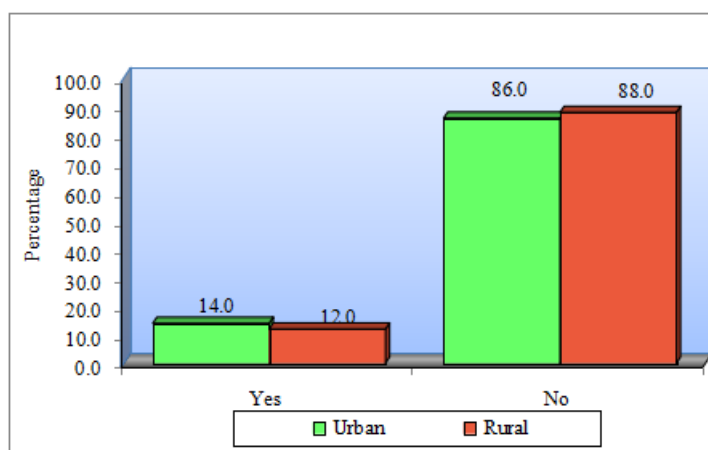
The above table 1 and graph 4 shows that in terms of family income, majority of the subjects 52% of urban and 54% of rural had family income of less than Rs.10,000/-, 26% of urban and 28% of rural subjects had income of Rs.10,001/- to Rs.15,000/-, 06% of urban and 02% rural had income of Rs.15001/- to Rs.20,000/- and 16% of urban and 16% of rural subjects had income of more than Rs. 20,001/-.

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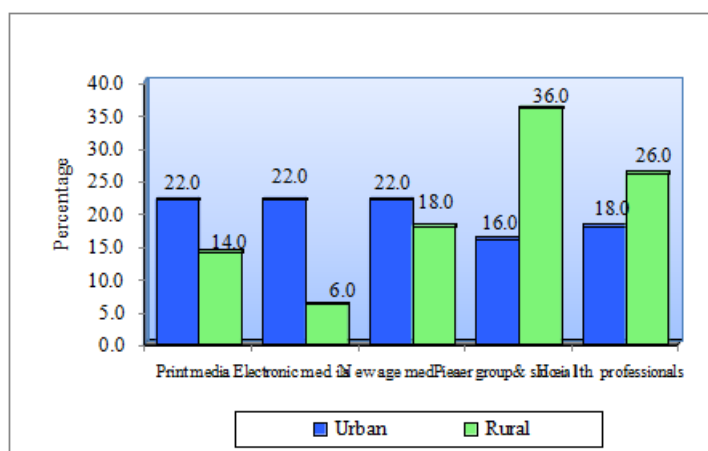
Graph: 5. Percentage distribution of urban and rural respondents by Type of Family.

The above table 1 and graph 5 depicts that 74% of urban and 48% of rural adolescents belong to Nuclear family and 26% of urban and 52% of rural adolescents belong to Joint family.



Graph: 6. Percentage distribution of urban and rural respondents by Type of Family.

The above table 1 and graph 6 reveals that terms of history of drug abuse, majority of the subjects 86% of urban and 88% of rural had no history of drug abuse and only 14% of urban and 12% rural had history of drug abuse.



Graph: 7. Percentage distribution of urban and rural respondents by sources of information.

The above table 1 and graph 7 depicts that source of information for 22% of urban and 14% of rural adolescents was by print media, 22% of urban and 06% of rural by electronic media, 22% urban and

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18% rural by new age media and 16% of urban and 36% of rural by peer group and social circle and 18% of urban and 26% of rural get information from health professionals.

Section II: Analysis and interpretation of knowledge scores of adolescent students regarding drug abuse and its impact on health.

Table No.2: Mean, Standard Deviation, and mean percentage of knowledge score of Urban respondents regarding drug abuse and its impact on health

Variables	N	Min	Max	Mean	SD	Mean%
Total Knowledge	50	09	21	14.98	2.97	49.93%
Knowledge about drug abuse.	50	05	14	9.28	2.22	51.56%
Knowledge about hazards, treatment of drug abuse.	50	01	09	5.7	1.88	47.50%

Table No 2 reveals that the mean value of knowledge scores of Urban adolescents was 14.98, standard deviation 2.97, range was 12 and mean percentage was 49.93%.

Table No. 2.1: Frequency and percentage distribution of knowledge scores of Urban Adolescents.

Knowledge Level	Score	Frequency	Percentage
Poor	01-15	28	56%
Average	16-24	22	44%
Good	25-30	00	00%

Table No 2.1 reveals that 56% of Urban adolescents had poor knowledge level, 44% had average le

Table No.3: Mean, Standard Deviation and mean percentage of knowledge score of Rural respondents regarding drug abuse and its impact on health.

Variables	N	Min	Max	Mean	SD	Mean%
Total Knowledge	50	07	24	13.4	3.29	44.66%
Knowledge about drug abuse.	50	04	14	8.76	2.24	48.67%
Knowledge about hazards, treatment of drug abuse.	50	03	10	4.64	1.67	38.67%

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Table No 3 reveals that the mean value of knowledge scores of Rural adolescents was 13.4, standard deviation 3.29, range was 17 and mean percentage was 44.66%.

Table No. 3.1: Frequency and percentage distribution of knowledge scores of Rural Adolescents

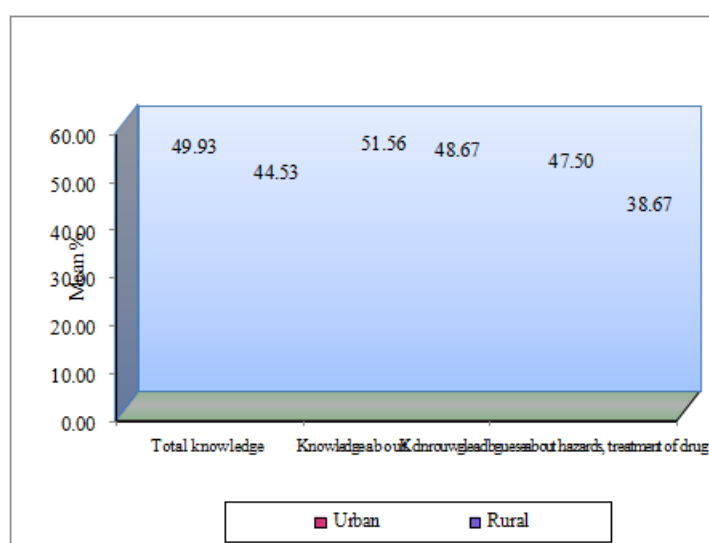
Knowledge Level	Score	Frequency	Percentage
Poor	01-15	44	88%
Average	16-24	06	12%
Good	25-30	00	00%

Table No 3.1 reveals that 88% of Rural adolescents had poor knowledge level, 12% had average level and 0% had good level of knowledge about drug abuse and its impact on health.

Section III : Comparison of level of knowledge scores between urban and rural adolescent high school students .

Table No. 4: Comparison of Mean, Standard Deviation and mean percentage of knowledge score (Using t-test) of Urban and Rural respondents regarding drug abuse and its impact on health

Variables	Habitat	N	Min	Max	Mean	SD	Mean%
Total Knowledge.	Urban	50	09	21	14.98	2.97	49.93%
	Rural	50	07	24	13.4	3.29	44.66%
Knowledge about drug abuse.	Urban	50	05	14	9.28	2.22	51.56%
	Rural	50	04	14	8.76	2.24	48.67%
Knowledge about hazards, treatment of drug abuse	Urban	50	01	09	5.7	1.88	47.50%
	Rural	50	03	10	4.64	1.67	38.67%



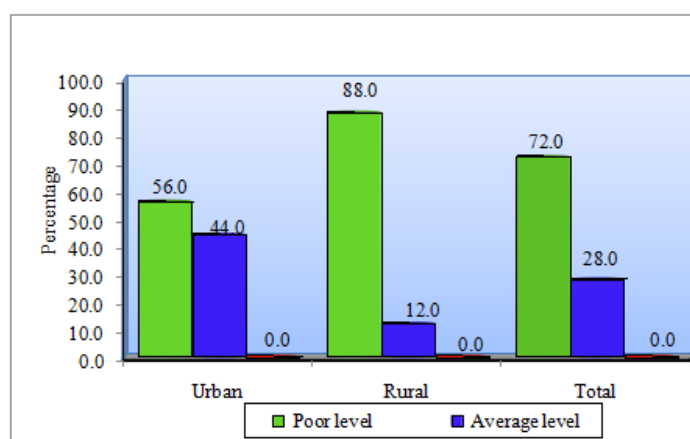
Graph: 8. Comparison of Urban and Rural adolescents with mean percent knowledge and its dimensions scores (%)

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Table No 4 and graph 8 reveals that the urban adolescents had 49.93% of total knowledge, 51.56% of knowledge regarding drug abuse and 47.50% of knowledge regarding knowledge about hazards, treatment of drug abuse. And rural adolescents had 44.66% of total knowledge, 48.67% of knowledge regarding drug abuse and 38.67% of knowledge regarding knowledge about hazards, treatment of drug abuse. Comparatively Urban adolescents had more knowledge than their Rural counterparts in all areas of knowledge regarding drug abuse.

Table No. 4.1: Comparison of Urban and Rural adolescents with their level of knowledge.
N= 100(50+50)

Knowled ge Level	Score	Urban Adolescents		Rural Adolescents		Total	Total Percentage
		Frequency	Percentage	Frequency	Percentage		
Poor	01-15	28	56%	44	88%	72	72%
Average	16-24	22	44%	06	12%	28	28%
Good	25-30	00	00%	00	00%	00	00%



Graph: 9. Comparison of Urban and Rural adolescents with their level of knowledge.

Table No 4.1 and graph 9 reveals that 72% (72) of adolescents had poor knowledge level, 28% (28) had average level and 0% (0) had good level of knowledge about drug abuse and its impact on health. And 56% (28) of Urban adolescents had poor knowledge as compared to 88% (44) of Rural adolescents, 44%(22) Urban adolescents had average knowledge as compared to 12% (6) of rural adolescents, and both the Urban and Rural adolescents had 0% of good knowledge. And as compared to Rural adolescents Urban adolescents had more knowledge regarding drug abuse and its impact on health.

Section IV : Association of knowledge scores of adolescent students regarding drug abuse and its impact on health with selected demographic variables.

Testing of Hypotheses:

H1: There will be a statistically significant difference between knowledge scores of urban and rural adolescents regarding drug abuse and its impact on the health at 0.05 level of significance.

Table No 4.1 revealed that there was moderately level of knowledge among urban adolescents than rural adolescents knowledge scores. Hence H1 was accepted.

H2: There will be a statistically significant association between knowledge scores of adolescents regarding drug abuse and its impact on the health with the selected demographic variables at 0.05 level of significance.

Table No. 5: Association between levels of knowledge scores and selected demographic characteristics with locations

No	Demographic Variables	Knowledge Level			Chi-Square	P-Value
		Poor	Average	Good		
1.	Age groups					
	14yrs	39	11	0		
	15yrs	15	7	0	1.8785	0.3909
	16yrs	18	10	0		
2.	Gender					
	Male	45	12	0	3.1736	0.0749
	Female	27	16	0		
3.	Religions					
	Hindu	60	26	0		
	Muslim	5	1	0	1.5483	0.4611
	Others	7	1	0		
4.	Family Income					
	Less than 10000	42	11	0		
	10001-15000	19	8	0		
	15001-20000	3	1	0	5.2747	0.1528
	More than 20001	8	8	0		
5.	Types of family					
	Nuclear	43	18	0		
	Joint	29	10	0	0.1765	0.6744
6.	History of drug abuse					
	Yes	10	3	0		
	No	62	25	0	12.6984	0.0004*
7.	Sources of information					
	Print media	16	2	0		
	Electronic media	10	4	0	5.4368	0.2454
	New age media	11	9	0		
	Peer group& social	19	7	0		
	Health professionals	16	6	0		

*Significant.

Table No. 5 presents the association between knowledge scores of adolescents with their selected demographic variables. The Chi-square test was carried out and it was found statistically significant at $p < 0.05$ level only in case of history of drug abuse. Remaining demographic variables are not associated. Hence H2 is accepted only in case of history of drug abuse.

Conclusion

Based on the findings of the study, the following conclusions were drawn:

1. The study results revealed that, majority of the adolescent students knowledge regarding drug abuse and its impact on health remained poor.
2. The study revealed that urban adolescents comparatively had more knowledge than the rural adolescents.
3. The results revealed that there was statistically significant association between knowledge scores and socio-demographic variables that is only in case of history of drug abuse and other variables age, gender, religion, family income, type of family, habitat, and source of information remain insignificant.

Nursing Implications

The findings of the present study have implication in the field of nursing education, nursing practice, nursing administration and nursing research.

Nursing Education:

“Quality care through excellence in advanced nursing education” is just apt to meet the demand of good quality of nursing care. In the changing scenario of health care delivery system where the risk of drug abuse is increasing, adolescent students of high schools needs to gain more knowledge on drug abuse as well as their prevention and management in health care settings. Incorporating these particular topics regarding drug abuse and its impact on health in the academic curriculum of the adolescent students is important so that they possess adequate and proper knowledge during their formative years. Teachers should reconsider current curriculum design, course content and teaching strategies concerning adolescent high school students compliance with standard and transmission-based precautions for the prevention of drug addiction and dependence. With the help of supportive educative system’ awareness and the level of knowledge can be increased by encouraging adolescent high school students to attend seminars, workshops, conferences and attending mass media campaigns regarding drug abuse and its impact on health

Nursing Practice:

Prevention of drug abuse and imparting of knowledge regarding drug abuse and its ill effects to these young adolescent high school students who are in their training period should be a priority for promotion of their knowledge level as well as health. The importance of the content should be emphasized through the increased use of demonstration, modelling of behaviours and guided practice regarding drug abuse. The adolescent high school students must be encouraged to not use any kind of drugs without the advice of health care professionals. Periodic health education should also be given to prevent health risks related to drug abuse and its effects. Accessible information at high schools and health care centers with proper guideline regarding drug abuse is also recommended so that their knowledge regarding drug abuse and its ill effect on health can also be enhanced.

Nursing Administration:

Nurse administrator must plan for continuing education program related to drug abuse and its impact on health. Nurse administrator must also ensure easy accessibility to proper information charts and posters depicting the information regarding drug abuse and its impact on health should be hung in every high schools, in both public and private schools; also guidelines should be framed wherein early and essential reporting of accidental drug abuse amongst adolescent students in high

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schools is made mandatory so that appropriate measures can be undertaken at the earliest. Hence, establishing a system that includes written protocols for prompt reporting of drug abuse, evaluation, counseling, treatment and follow-up is imperative.

Nursing Research:

Research can help increase the body of nursing knowledge which improves the care provided. There is need for research based standards of practice. The need for further research is based on the conclusions of the present study. The present study conducted by the investigator can be a source of review of literature for others, who are intending to conduct studies on drug abuse and its impact on health. Such studies must be conducted in schools, colleges, health centers and hospitals.

Limitations:

- 1) Small number of subjects (100) used to conduct this study restricted the generalization of the results.
- 2) The study sample was confined to adolescent students studying in selected High schools of Gokak taluk, Belagavi, Karnataka.
- 3) The tool used for the data collection was not standardized. It was designed by the investigator himself for the purpose of the present study based on the objectives of the study.

Recommendations:

- 1) This study can be replicated on a larger sample for generalizing the findings.
- 2) A similar study can be conducted in different high schools and institutes on a large sample to assess the knowledge regarding drug abuse and its impact on health.
- 3) A comparative study can be conducted to assess the knowledge regarding drug abuse and its impact on health among metropolitan city adolescents and rural adolescents.
- 4) A prospective study can be conducted regarding drug abuse and its impact on health.
- 5) A descriptive study can be conducted to assess knowledge of adolescent students regarding importance of imparting knowledge to adolescents regarding drug abuse and its ill effects on health.

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