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"A study to assess the effectiveness of structured teaching programme on knowledge of adolescents regarding first aid management of burn at selected schools of Amritsar."

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Abstract: *Burn injuries occur when energy from a heat source is transferred to the body's tissues. Heat may be transmitted through conduction or electromagnetic radiation. Injuries resulting from direct contact with or exposure to any thermal, chemical, electrical, or radiation source are referred to as burns. occur when energy from a heat source is transferred to the body's tissues. Heat may be transmitted through conduction or electromagnetic radiation. Injuries resulting from direct contact with or exposure to any thermal, chemical, electrical, or radiation source are referred to as burns.*

Background*: Katherine A Et al. (2009) conducted a prospective study involving 58 couples who were randomly assigned to either an experimental group or a control group. Both groups received information and discussions on nutrition, dental care, safety in the car and home, child development, child-rearing, illness management, and immunizations. Additionally, the experimental group was provided with specific information on prevention measures, including hot water heater settings and smoke detectors. During a subsequent home visit, it was found that 65% of the couples in the experimental group had their hot water temperature set at 54.4 degrees Celsius or lower, while all couples in the control group had their settings above 54.4 degrees Celsius, indicating a significant difference. These findings suggest that paediatricians may now be positioned to incorporate effective safety counselling procedures for burn prevention in the home as part of well-child care.*

Rawlins JM Et al. (2007) conducted a prospective study involving 208 burn patients attending a single inner-city emergency department (ED) to establish epidemiological burn patterns and the final outcomes of thermal injuries over a period of time.

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I. Introduction

ACCIDENTS HAVE BECOME A COMMON OCCURRENCE IN TODAY'S WORLD. ROAD TRAFFIC ACCIDENTS, DOMESTIC ACCIDENTS, INDUSTRIAL ACCIDENTS, AND RAILWAY ACCIDENTS ACCOUNT FOR A SIGNIFICANT PROPORTION OF MORTALITY, MORBIDITY, AND DISABILITY. BURNS OF ALL TYPES AND SEVERITIES ARE ALSO CLASSIFIED AS ACCIDENTS. BURNS LEAD TO AESTHETIC ISSUES AS WELL AS ACUTE PHYSICAL CHALLENGES, AND IF NOT PROPERLY MANAGED, THEY CAN RESULT IN SERIOUS COMPLICATIONS SUCH AS SECONDARY BACTERIAL INFECTIONS AND VARIOUS DEGREES OF CONTRACTURES THAT LIMIT DAILY ACTIVITIES, SEPTICEMIA, AND MORE. THE INDIVIDUALS AFFECTED ARE PREDOMINANTLY FROM LOW SOCIO-ECONOMIC BACKGROUNDS. THE FINANCIAL BURDEN OF TREATING THESE INJURIES IS SUBSTANTIAL. IN DEVELOPING NATIONS, THE CHALLENGES ASSOCIATED WITH BURN INJURIES ARE EXACERBATED BY THE FACT THAT THE CARE OF BURN PATIENTS NECESSITATES SPECIALIZED PERSONNEL AND MEDICAL TECHNOLOGIES THAT ARE COSTLY AND NOT ALWAYS EASILY ACCESSIBLE.

Burn injuries and their consequences are significant contributors to morbidity and mortality on a global scale. Each year, over two million individuals in the U.S. experience burn injuries, with annual mortality rates ranging from 7,000 to 10,000. This condition ranks as the third leading cause of accidental death in the United States. In Western India, the overall mortality rate for burn admissions in 1996 was recorded at 56.5%. In Zimbabwe and Iran, the mortality rates were 22% (1999) and 19.6% (2000), respectively.

Approximately 250,000 burn incidents occur each year in the United Kingdom. Roughly 90% of these cases are classified as minor and can be effectively managed within primary care settings. Most of these injuries will heal without intervention, yet the quality of initial care can significantly affect the cosmetic results. In the United States, more than 2 million injuries and between 7,000 to 9,000 fatalities are attributed to fire and burn incidents.

II. Material And Methods

Research Methodology refers to a systematic approach to addressing the research problem. It outlines the overall framework for organizing procedures to gather valid and reliable data for investigation. This chapter focuses on the methodology employed to evaluate the effectiveness of a structured teaching program on knowledge related to first aid management of burns among adolescents in a selected school in Amritsar. Methodology encompasses a set of practices, procedures, and rules utilized by individuals working within a specific discipline or engaged in inquiry.

• RESEARCH DESIGN:
A pre-experimental study utilizing a one-group pre-test and post-test design will be implemented for this research.
• RESEARCH SETTING:
The research will take place in selected schools located in Amritsar.
• ACCESSIBLE POPULATION:
The accessible population will consist of adolescents attending schools in Amritsar.
• TARGET POPULATION:
The target population will include adolescents who are senior secondary school students in Amritsar.
• SAMPLE SIZE:
The study sample will comprise 100 adolescents.
• TECHNIQUE:
The technique employed will be a non-probability convenience sampling method.

Inclusion criteria:

- Studying at selected schools of Amritsar.
- Age group on 13-19 Years.
- Adolescents those who can understand Punjabi, Hindi , English .
- Adolescents who will be present at the time of data collection.
- Adolescents who are willing to participate in the study .

Exclusion Criteria :

Adolescents who decline to participate in the study.

III. Analysis & Interpretation

"A study to assess the effectiveness of structured teaching programme on knowledge of adolescents regarding first aid management of burn at selected schools of Amritsar."
The overall aim of study is to test the effectiveness of STP regarding burn among adolescents will be achieved by comparing the pre and posttest knowledge scores in groups obtained by the subject under study, The study also include obtaining answer to research hypothesis.
The analysis has been done under the following headings:
Section 1: Description of demographic characteristics of adolescents age, gender, religion, previous knowledge and area of living.
Section 2: Assessing the pre- test knowledge scores among adolescents of age group 13-19 regarding first aid management of burn.
Section 3: Assessing the post –test knowledge among adolescents of age group 13-19 regarding first aid management of burn.
Section 4: Association of the posttest knowledge score regarding first aid management of burn of age group 13-19 with their selected demographic variables.

Description of demographic characteristics of Adolescents

Table 1

Frequency and percentage distribution of samples according to their demographic characteristics

N=100

Variables	Opts	Frequency(f)	Percentage (%)
Age	13-15 year	25	25
	16-17 year	35	35
	18-19 year	40	40
Gender	Male	50	50

	Female	50	50
Religion	Hindu	32	32
	Sikh	63	63
	Muslim	0	0
	Christian	5	5
Area of Living	Urban	60	60
	Rural	40	40
Source of Information	Magazine	15	15
	Family	20	20
	Television	35	35
	Classroom	30	30

SAMPLE CHARACTERISTICS

Percentage distribution of adolescents according to their age group reveals that highest percentage (40%) of them were in the age group 18-19 years, about (35%) were 16-17 years, and (25%) were in the age group of 13-15 years. (Fig.3)

Percentage distribution of adolescents according to their gender depicts that (50%) of students were males and (50%) were females (Fig.5)

Percentage distribution of students according to their religion depicts that highest percentage (63%) of the adolescents belongs to Sikh religion. However, (32%) of them belong to Hindu religion, (5%) to christianity and (0%) to Muslim religion. (Fig.6)

Percentage distribution of adolescents according to their area of living shows that highest percentage (60%) of adolescents resided in urban areas whereas (40%) of them lived in rural areas. (Fig.7)

Percentage distribution of adolescents according to the previous knowledge depicts that (35%) of students got information television (30%) of them got information through classrooms, (20%) from family and the lowest percentage (15%) of them got information through magazines (Fig.8)

Section A: Analysis of Socio Demographic Variables

Table No.2: Distribution of samples according to Age group

N=100

Variables	Opts	Frequency(f)	Percentage (%)
Age	13 -15 year	25	25%
	16- 17 year	35	35%
	18- 19 year	40	40%

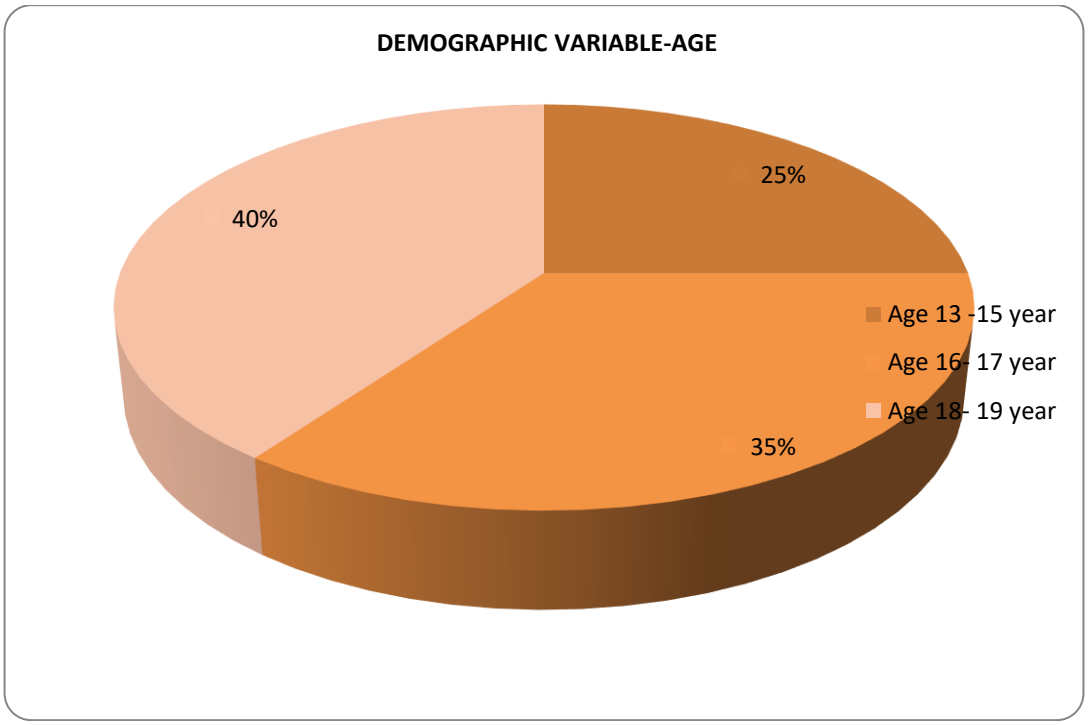

Figure No 3: Distribution of samples according to age group

Table No.2 and fig no 3. shows that majority of the subjects (40%) are in the age group of 18-19 years, (35%) are in age group 16-17 years, and (25%) are in the age group of 13-15 years.

Table No.3: Distribution of samples according to Gender

N=100

Variables	Opts	Frequency(f)	Percentage (%)
Gender	Male	50	50%
	Female	50	50%

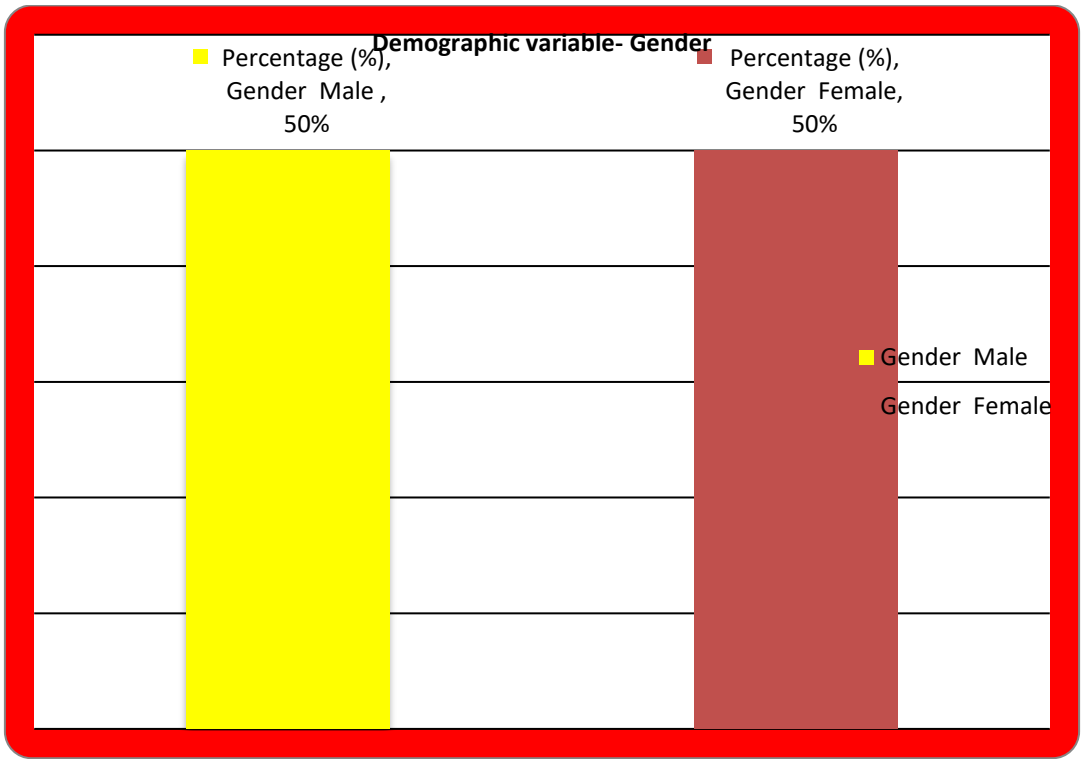

Figure No 4: Distribution of samples according to Gender

Table No. 3 and fig no 4.shows that half of subjects (50%) are males and 50% of samples are females.

Table No.4: Distribution of subjects according to Area of Living

N=100

Variables	Opts	Frequency(f)	Percentage (%)
Area of living	Urban	60	60%
	Rural	40	40%

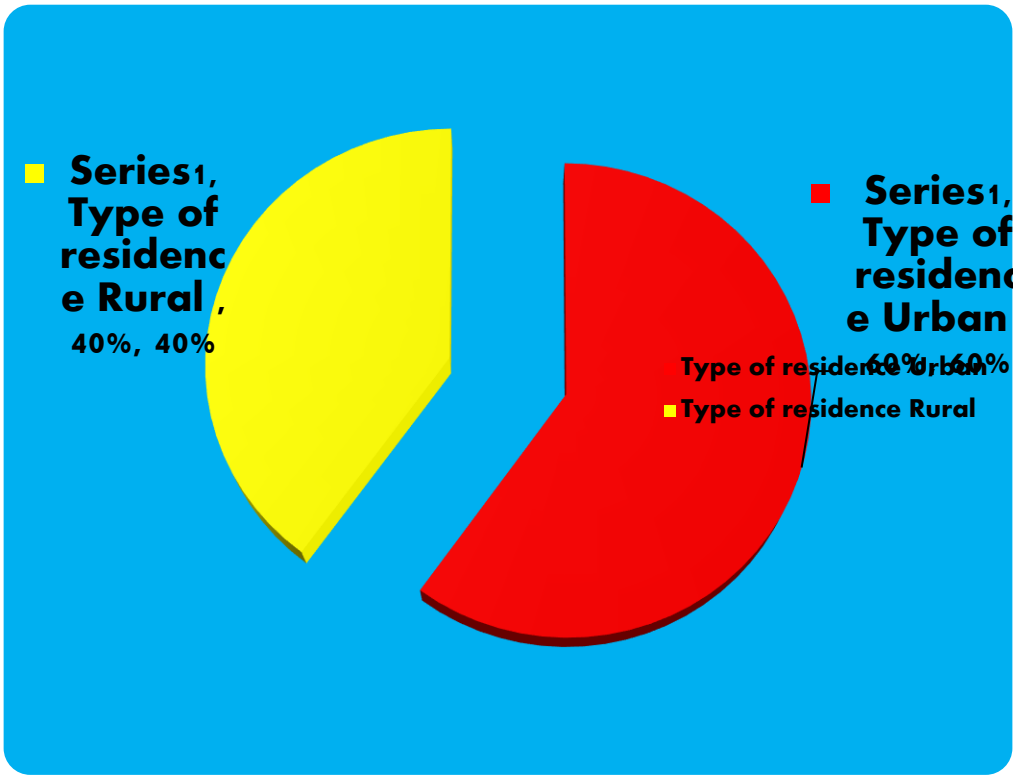

Figure No 5: Distribution of samples according to Area of living

Table No.4 and figure no 5. shows that 40% of subjects are residing in rural area whereas and 60% are residing in urban areas.

Table No.5: Distribution of subjects according to Religion

N=100

Variables	Opts	Frequency(F)	Percentage (%)
Religion	Hindu	32	32%
	Sikh	63	63%
	Muslim	0	0%
	Christian	5	5%

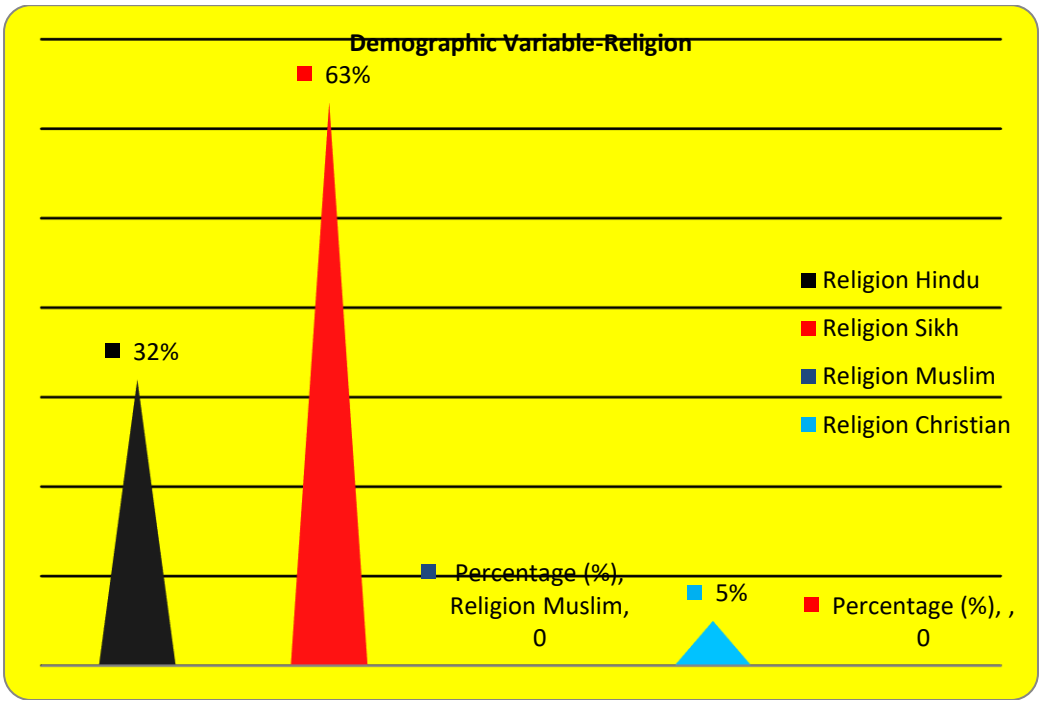

Figure No 6: Distribution of samples according to Religion

Table No. 5 and figure no 6. shows that majority of subjects (63%) belong to Sikh religion, (32%) belongs to Hinduism ,(5%) to christianity and (0%) to Muslim religion.

Table No.6: Distribution of subjects according to Previous knowledge

N=100

Variables	Opts	Frequency(F)	Percentage (%)
Previous knowledge	Magazine	15	15%
	Family	20	20%
	Television	35	35%
	Classroom	30	30%

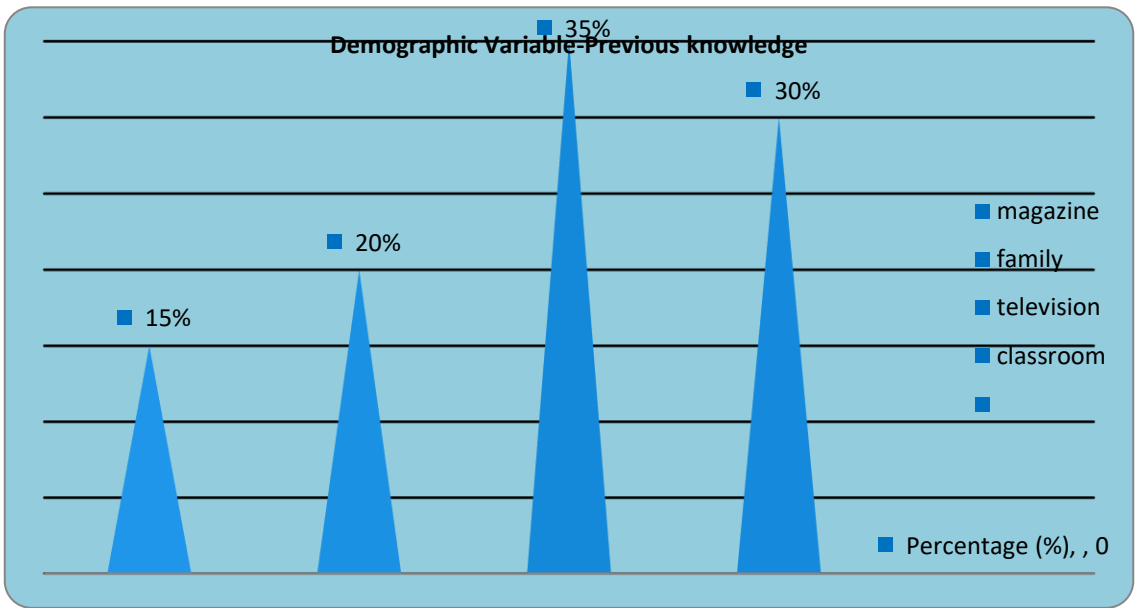

Figure 7: Distribution of subjects according to Previous knowledge

Table No.6 and figure no 7. shows that majority of subjects (35%) got information from television, (30%) obtained knowledge from classroom, (20%) got information from family and (15%) through magazines.

Section B: Analysis of level of knowledge regarding BURNS.

Table No 7: Overall level of knowledge of samples regarding Burns

KNOWLEDGE SCORE						
Variables	**Mean**	**Mean%**	**S.D**	**Range**	**T value**	**Tabulated value**
Pre test	13.1	43.6	1.22	4	3.47	1.98
Post test	20.6	68.6	1.42	5		

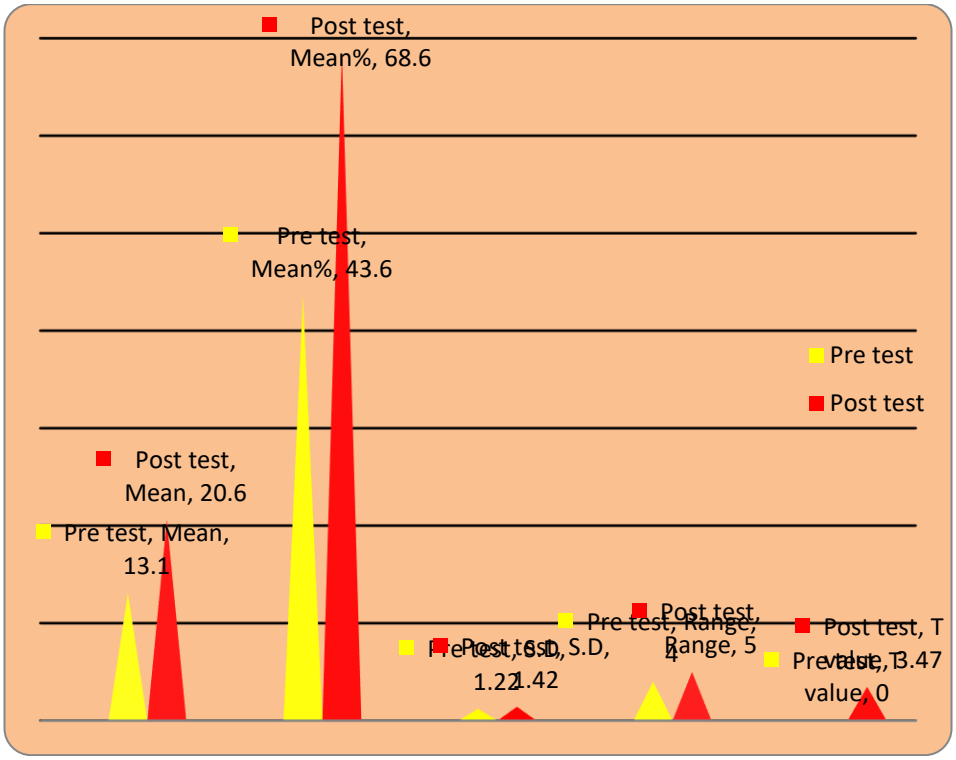

Figure No 8: Overall level of pre and post test knowledge of samples regarding Burns

The data depicts in figure no 10 shows that the obtain mean of pretest knowledge score of the samples is 13.1 with standard deviation 1.22, mean% 43.6 and range 4 whereas mean of posttest knowledge score is 20.6, S.D 1.42, mean% 68.6, range 5 and t value is 3.47.

Table No 8: Scoring criteria of pretest knowledge score

VARIABLES	CATEGORIES	LEVEL OF SCORE	PERCENTAGE
KNOWLEDGE	High	21-30	0
	Moderate	11-20	70%
	Low	0-10	30%

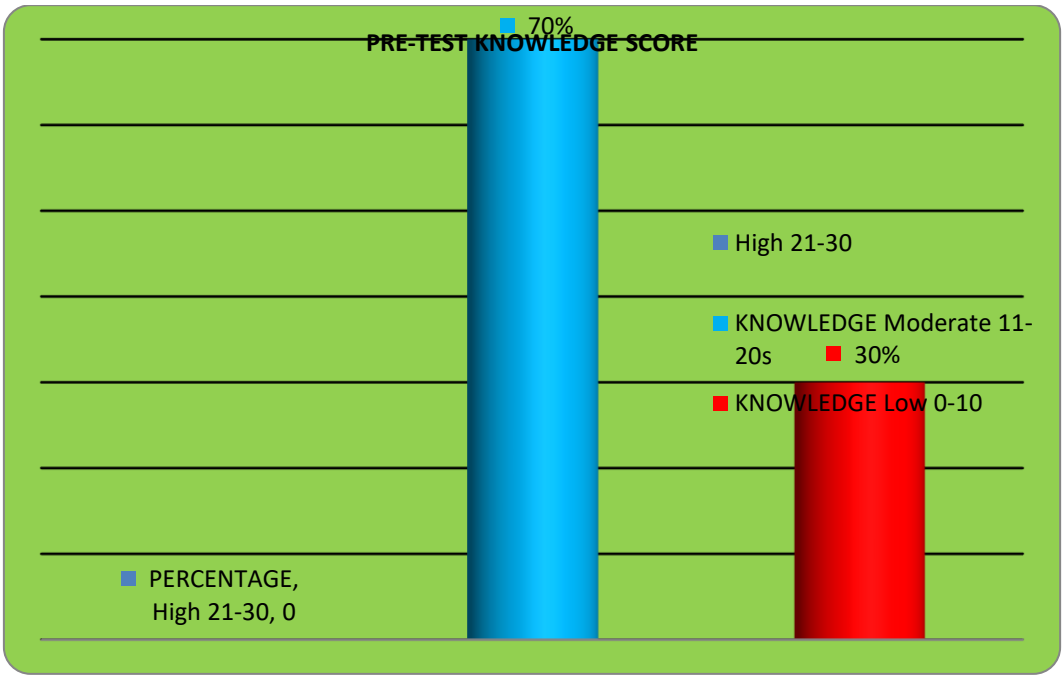

Figure No. 9: Scoring criteria of pretest knowledge score

Table No 9: Scoring criteria of posttest knowledge score

VARIABLES	CATEGORIES	LEVEL OF SCORE	PERCENTAGE
KNOWLEDGE	High	21-30	50%
	Moderate	11-20	50%
	Low	0-10	0

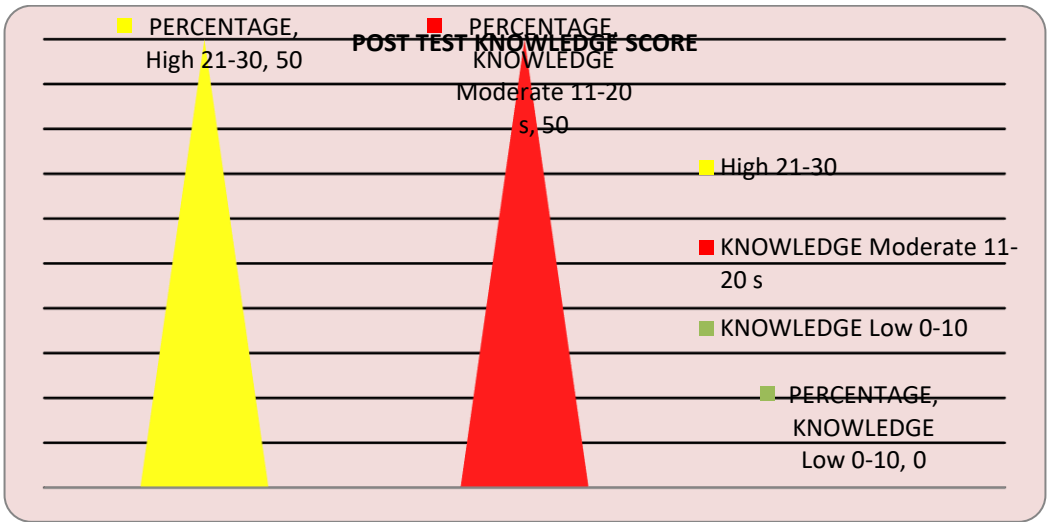

Figure No. 10: Scoring criteria of posttest knowledge score

Section C: Association of knowledge score with selected Socio-Demographic variables.

Table No. 10: Chi-square results of Socio-Demographic Variables

Demographic Data		Levels(N=100)			Association with Knowledge Score			
Variables	Opts	Inadequate	Moderately Adequate	Adequate	Chi Test	df	Table Value	Result
Age	13-15 year	2	12	11	21.42	4	9.49	S
	16-17 year	10	13	12				
	18-19 year	6	3	31				
Religion	Hindu	7	12	13	10.85	6	12.59	NS

	Sikh	8	15	40				
	Muslim	0	0	0				
	Christian	3	1	1				
Gender	Male	13	8	29	7.54	2	5.99	S
	Female	5	20	25				
Area of living	Urban	6	18	36	6.91	2	5.99	S
	Rural	12	10	18				
Previous knowledge	Magazine	2	5	8	5.71	6	12.59	NS
	Family	3	5	12				
	Television	4	12	19				
	Classroom	9	6	15				

Note: S=Significant, NS= not significant, p value < 0.05 level, df = degree of freedom

Table no. 10 shows that the majority (%) of the respondents having inadequate knowledge followed by (%) having moderately knowledge and (%) of the respondents having adequate knowledge.

Data presented in table no.9 that there is highly significant association of knowledge and selected socio-demographic variables such as age, area of living, gender and there is no significant association between, previous knowledge, religion and knowledge at the 0.05 level of significance.

IV. Conclusion:

All adolescents represent a significant asset to the country; thus, their health status must be preserved. Adequate knowledge regarding burns is essential for maintaining good health. Adolescents should properly utilize measures to care for burn wounds. Insufficient knowledge poses a major health challenge in developing nations.

The primary intervention for first aid management of burns among adolescents is to enhance their knowledge, highlighting the urgent need to educate them on wound care. The results indicate that the pretest mean knowledge score on first aid management of burns was 13.4 with a standard deviation of 1.22, while the post- test mean knowledge score was 20.6 with a standard deviation of 1.42.

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