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A study to assess the effectiveness of information booklet on the knowledge regarding the ill health effects of firecrackers among the parents of school going children in selected urban area of Nagpur city

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Abstract

Problem Statement: "A study to assess the effectiveness of information booklet on the knowledge regarding the ill health effects of firecrackers among the parents of school going children in selected urban area of Nagpur city."

Methodology: The study based on Quantitative research approach this was a quasi experimental one group pretest post-test research design. The setting of the study was urban area of Nagpur city sample size for the was 30. Sampling technique was non probability sampling technique for the selection of sample. The tool was structured questionnaire. This was pre-test. The information booklet was given to all the students. The post-test done by using the same tool to identify change in knowledge.

Result: The frequency and percentage wise distribution of parent with regards to the level pre- test data analysis regarding ill health effects of firecrackers. The levels of knowledge were seen into 5 categories, poor, average, good, very good, excellent. 10% participant have poor knowledge, 30% have average knowledge, 60% have good knowledge, 0% of participants have very good knowledge and 0% of participants have excellent knowledge. The post- test data analysis regarding ill health effects of firecrackers. The levels of knowledge were seen into 5 categories, poor, average, good, very good, excellent. 0% participant have poor knowledge, 10% have average knowledge, 30% have good knowledge, 40% of participants have very good knowledge and 20% of participants have excellent knowledge.

Conclusion: The study reveals that there is a deficit knowledge regarding ill health effects of firecrackers among parents in pre-test. The post-test knowledge was increased which reveals that information booklet was effective on knowledge regarding ill health effects of firecrackers.

Keywords: Information booklet, utilization, adults

Introduction

'Spread happiness, celebrate health. Say no to firecrackers '-

Dr. Seuss

"We need to learn and adapt. Learn that we are now living in times when pollution is actually a big hazard and every source of pollution matters. And adapt to celebrate without burning crackers". Firecrackers are extensively used in India during various festivals, ceremonies and social events, as in true the world over. Firecrackers are available for use by the common public. It is a well-known fact that whenever firecracker are used, there is always a risk of burn injuries and causes the adverse health effects directly related to the inhalation that is chronic respiratory disease, cough, fever, dyspnoea leading to acute eosinophilia pneumonia.

Background of study

The study was conducted by GITAM (Gandhi Institute of Technology and Management) University Visakhapatnam. In this study, the team conducted study on environmental and health impacts of Diwali, having 161 families were respondents. The study reveals that only a few of respondents were having a basic information regarding pollution aspects of firecrackers and most of them were totally ignored the health effects, findings of study were 50-70% of respondents have reported high effects on eyes.

1.6-2% are due to injury by firecrackers of all reported ocular injuries.

Materials and Methods

Problem statement:- “A study to assess the effectiveness of information booklet on the knowledge regarding the ill health effects of firecrackers among the parents of school going children in selected urban area of Nagpur city.”

Objectives

- To assess the existing knowledge regarding the ill health effects of firecrackers among the parents of school going children in selected urban area of Nagpur city. To assess the effectiveness of information booklet on knowledge regarding ill health effects of firecrackers among the parents of school going children in selected urban area of Nagpur city.
- To associate the post- test knowledge score regarding the ill health effects of firecrackers among the parents of school going children with their selected demographic variable.

Research design: Quasi experimental (One group pre-test and post-test study)

Variables

1. Independent variable: Information booklet.
2. Dependent variable: Knowledge regarding ill health effects of firecrackers.

Setting of study: selected urban area of Nagpur city.

Population

Target population: Peoples of in selected urban area of Nagpur city.

Accessible population: Parents of school going children of age (6-12 years) in selected urban area of Nagpur.

Sample size: Sample size of the study was 60 parents of school going children.

Sampling technique: non-probability convenience sampling technique.

Criteria for sample selection

Inclusion Criteria

1. Parents of school going children, whose children age is between 6 to 12 years.
2. Those who are willing to participate in the study.
3. Those who are available at the time of study.
4. Those who are able to read and write in Hindi, English and Marathi.

Exclusion Criteria

1. Parents whose children age is below 6 and above 12 years.
2. Parents those who are not willing to participate.
3. Parents those who are not available at the time of study.
4. Parents those who are not able to read and write in Hindi, English and Marathi.

Tool preparation

A tool is an instrument and equipment used for data

collection. In this study, the tool used is structured question are and information booklet.

Development of tool: The investigator developed the tool after updating theoretical knowledge regarding ill health effects of firecrackers, the investigator on experience, theoretical knowledge and guidance from the experts along with the review of literature help in developing the tool necessary for the study.

Description of tool: Tool consist of two section

Section A: Consist of demographic variable (Gender, age, religion, education status, occupation, monthly income, number of children, previous knowledge regarding firecrackers, source of knowledge).

Section B: Consist of 30 questions on knowledge regarding ill health effects of firecrackers.

Validity

In order to obtain content validity the tool was given to eight experts who included two Department of Medical surgical Nursing, one from Department of Child Health Nursing, one from Department of Mental Health Nursing, one from Community Health Nursing, one from Department of Obstetrics and Gynecology.

Method for data collection

- Data will be collected from parents of school going children.
- Data regarding knowledge about ill health effects of firecrackers.
- Parents were informed about study and after a within consent, they will be given a structured questionnaire.
- The questionnaire will be used to gather the data about demographic variables and question based on knowledge regarding ill health effects of firecrackers.

Method for data analysis

- Data regarding knowledge about ill health effects of firecrackers will be analyses by answer given by parents of school going children in pretest and posttest after providing information booklet.
- Compare the result of pretest and posttest by test of significance of both (paired) if the posttest “t” value will be increased the study will be effective.

Result

The analysis and interpretation of the observations are given in the following section.

Section A: Consist of demographic variable (Gender, age, religion, education status, occupation, monthly income, number of children, previous knowledge regarding firecrackers, source of knowledge).

Section B: Consist of 30 questions on knowledge regarding ill health effects of firecrackers.

Section C: The significant between knowledge score of pre-test & post-test regarding ill health effects of firecrackers by using paired t test.

Section D: Association of post-test knowledge score with selected demographic variables.

Section A: Distribution of parents with regards to demographic variables**Table 1:** Distribution of parents according to their demographic variables N= 60

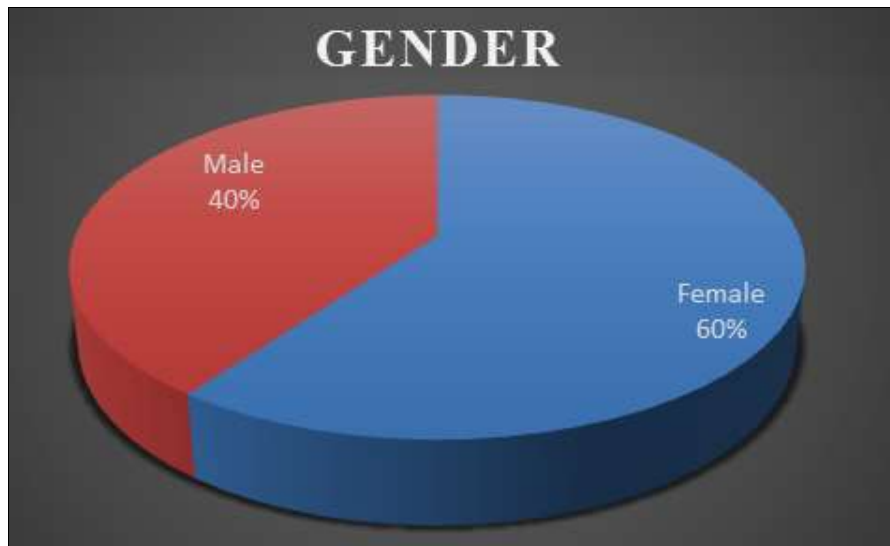
Demographic variables	Frequency	Percentage %
Age (YEARS)		
30 - 35 years	30	50%
35 - 40 year	24	40%
40 and above	6	10%
Gender		
Male	24	40%
Female	36	60%
Religion		
Hindu	48	80%
Muslim	00	00%
Christian	05	8.3%
Jain	02	3.3%
Other	05	8.3%
Education		
SSC	5	10%
HSC	10	16.7%
Graduate	43	70%
Post graduate	2	3.3%
Illiterate	0	0%
Occupation		
Housewife	14	23.3%
Government job	21	35%
Private job	21	35%
Labour	3	5%
Farmers	1	1.3%
Income		
Less than 10,000	4	6.7%
10,001 / - 20,000	6	10%
20,001/ - 30,000	14	23.3%
30,001 and above	36	60%
No of children		
1	15	25%
2	45	75%
3	00	00%
3 or more	00	00%
Previous knowledge about firecrackers		
Yes	54	90%
No	6	10%
Source of knowledge		
Television	18	30%
Social media	06	10%
Newspaper	30	50%
Family members	06	10%

The above table no.1 depicts that

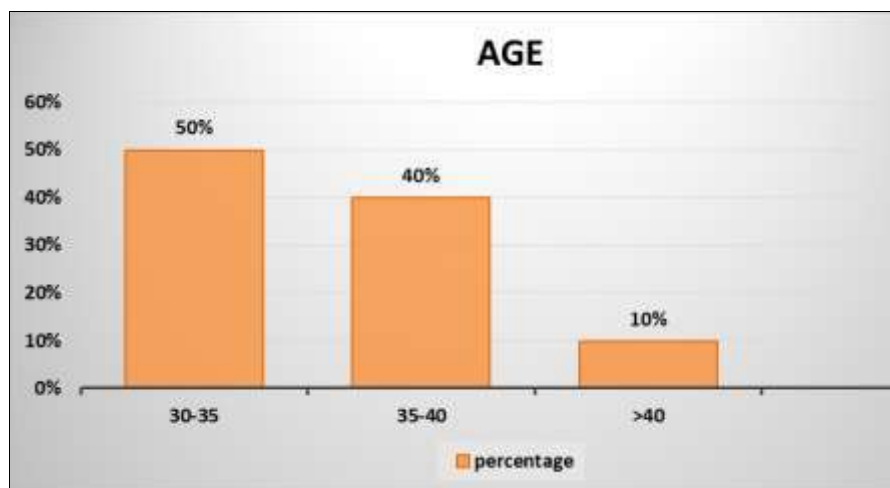
- Majority of participants that is 40% are male participants and 60% are female participants.
- Majority of the participants i.e. 50% of participants belonging to the age group 30 to 35 and 40% of Participants belonging to the age group 35 to 40 and 10% of participants belonging to the age group 40 and above.
- Majority of the participants belonging to religion i.e. 80% of participants are Hindu and 8.3% of participants belonging to Christian, 3.3% of participants belonging to Jain & 8.3% of participants belonging to other. There were no Muslim.
- Majority of participants that is 10% has completed their SSC, 16.7% are HSC participant, 70% are graduate and 3.3% are postgraduate participant. There were no illiterate participate in our study.
- Majority of participants are doing occupation i.e. 23.3% of participants are housewife, 35% of participant doing private job, 35% of participant doing government job 5% are labour and 1.3% belongs Farmers.
- Majority of the participants have monthly income according to range i.e. 6.7% of participants having 10000 salary, 10% of participants having salary between 10000 to 20000 and 23.3% of participants having salary between 20000 to 30000 & 60% of the participants having the salary from 30000 or more.
- Majority of the participants have of childrens belonging to parent i.e. 75% of participants having two child, 25% of participants having single child & None of participant having three child and three or more child.
- Majority of the have knowledge regarding firecracker i.e. 90% having knowledge regarding firecrackers, 10 % are not having knowledge regarding firecrackers
- Majority of the have sources of knowledge i.e. 30% have received knowledge from television, 10% have

received knowledge from social media, 50% have
received knowledge from newspaper, 10% have

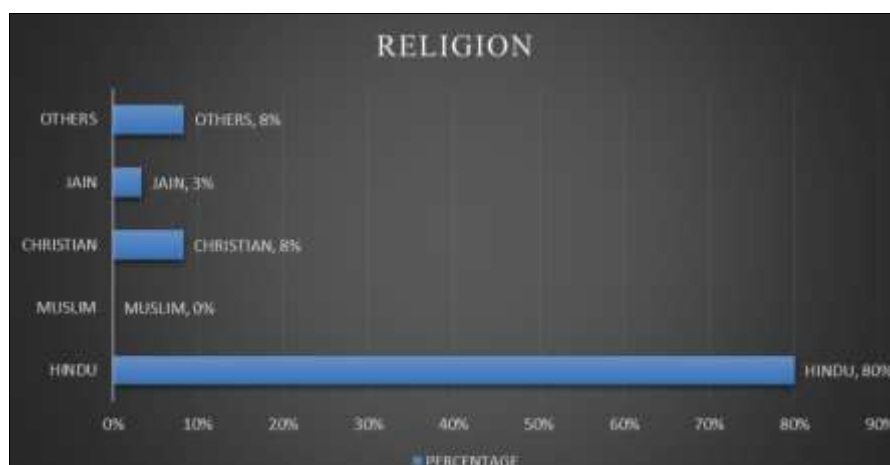
received knowledge from family members.



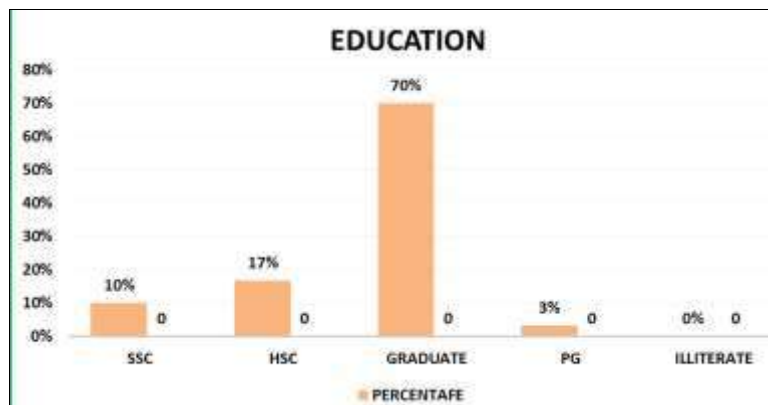
Graph 1: Gender



Graph 2: Age



Graph 3: Religion



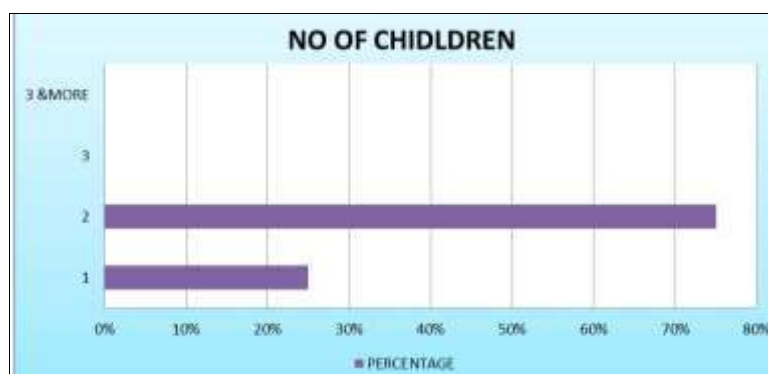
Graph 4: Education



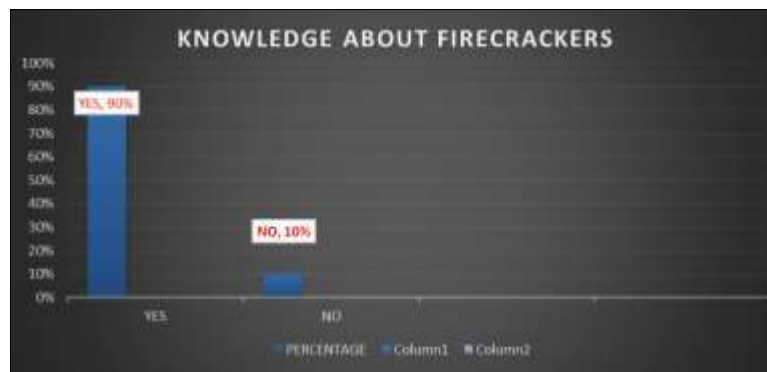
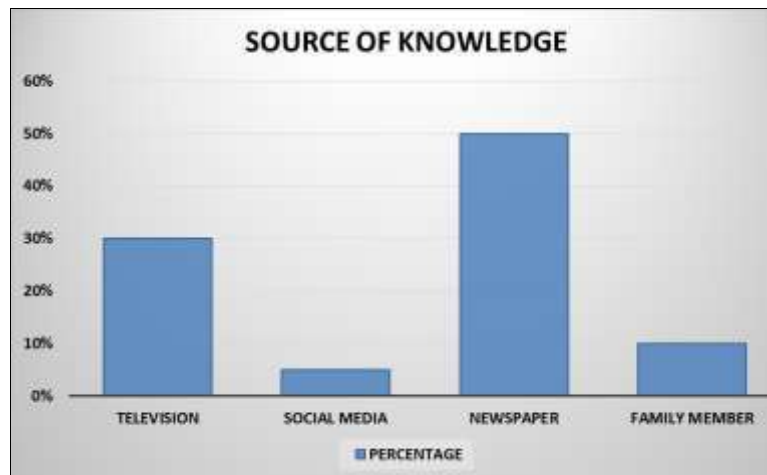
Graph 5: Occupation



Graph 6: Monthly income



Graph 7: No of children

**Graph 8:** Knowledge about firecracker**Graph 9:** Source of knowledge

Section B: Assessment of existing knowledge regarding ill health effects of firecrackers among the parents of school going children.

Tables 2: Distribution of relatives of patients with regards to the level of pre – test knowledge regarding ill health effects of firecrackers N = 60

Level of knowledge score	Score range	Percentage score	Frequency	Percentage
Poor	0 - 6	0 - 20%	6	10%
Average	7 - 12	23.33-40%	18	30%
Good	13 - 18	43.33-60%	36	60%
Very good	19 - 24	63.33-80%	00	00%
Excellent	25 - 30	83.33-100%	00	00%
Minimum score	6			
Maximum score	16			
Mean%	41.67%			
Mean score	12.3			

The above table no. 2 The findings show that in pre-test 60% study participants are having good knowledge, 30% of

study participants are having average knowledge and 10% of participant had poor knowledge

Table 3: Distribution of relatives of patients with regards to the level of post– test knowledge regarding ill health effects of firecrackers N = 60

Level of knowledge	Score range	Percentage score	Frequency	Percentage
Poor	0 - 6	0 - 20%	00	00%
Average	7 - 12	23.33- 40%	06	10%
Good	13 - 18	43.33- 60 %	18	30%
Very good	19 - 24	63.33-80 %	24	40%
Excellent	25 - 30	83.33–100%	12	20%
Minimum score	10			
Maximum score	26			
Mean%	64.33%			
Mean score	19.3			

The findings of the study show the post-test of 10% of study participants are having average knowledge, 30% of study participants are having good knowledge and 40% participants having very knowledge, 20% of participants having excellent knowledge.

Section C: Analysis of effectiveness of information booklet on the knowledge regarding the ill health effects of firecrackers among the parents of school going children in selected urban area of Nagpur city.

Table 4: significance of difference between knowledge score in pre and post - test of parents of school going children.

Overall	Mean	S D	Mean percentage	T- value		P -value
Pre-test	12.3	4.14	41.67%	Tabulated value	Calculated value	$P < 0.05$
Post-test	19.3	5.41	66.33%	2.00	11.84	

Table no. 4 The overall mean knowledge score of pre - test relatives of patient which reveals that post - test means knowledge score was higher +19.3 with SD of + 5.414 when compared with pre - test means knowledge score value which was +12.3 with SD Of +4.14 the statistical relatives of patient paired t -test implies that the difference in pre - test and post test knowledge score found to be 11.84 which

is statistically significant at 5% level of significant ($p < 0.05$). Hence it is statistically interpreted that information booklet on the knowledge regarding the ill health effects of firecrackers among the parents of school going children in selected urban area of Nagpur city was effective. Thus H1 is accepted and H0 rejected.

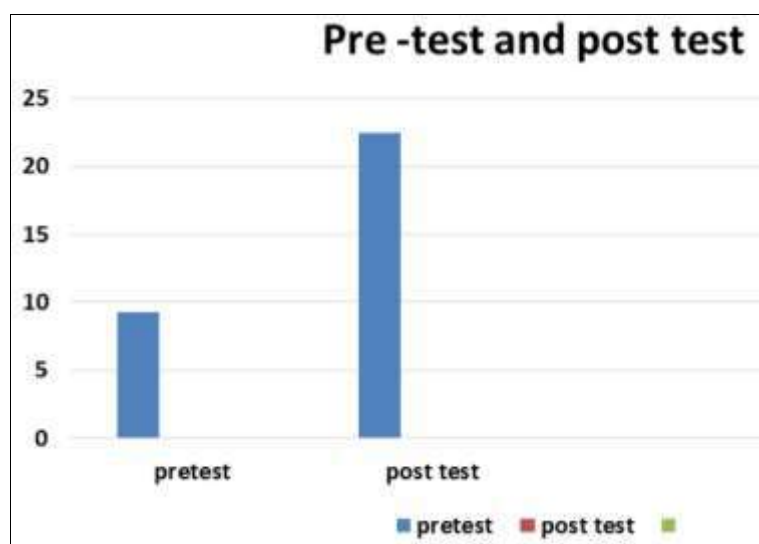


Fig 4.2.10: Bar graph significance of difference between knowledge score in pre and post test.

Section D: Association of knowledge of ill Health effects of firecrackers among parent of school going children with

selected demographic variable. It was calculated with the help of chi-square test.

Table 5: An analysis of data find association between post-test knowledge and selected demographic variables.

Sr. no	Demographic Variables	Chi square value	Degree of freedom	Table value	Level of significance	Significance
1.	Gender	10.91	4	9.49	0.05	Significant
2.	Age	1.4	8	15.51	0.05	Not-significant
3.	Religion	15.93	16	26.30	0.05	Not-significant
4.	Education	17.98	16	26.30	0.05	Not-significant
6..	occupation	12.98	16	26.30	0.05	Not-significant
7..	Income	28.92	12	21.23	0.05	significant
8..	No of children	0.71	12	21.23	0.05	Not significant
9..	Previous knowledge	6.732	4	9.49	0.05	Not-significant
10..	Source of knowledge	6.1	12	21.23	0.05	Not-significant

Table no. 5 in this there is a significant association between knowledge score with gender and number of children. There is no significant association between gender, age, religion, education, occupation, monthly income, knowledge about firecrackers and source of knowledge.

Discussion

In the previously studies researcher discussed about the ill effects of firecrackers on health and considered the prevention and important resources to manage the

circumstances related to firecrackers. The objective of the study is to assess the effectiveness of information booklet on knowledge regarding the ill health effects of firecrackers among parent of school going childrens. Additionally, researcher discussed about provision of proper and effective information booklet so that the parents are more aware and guide their childrens about it's ill effects not only on human health but also on environment and it's management. So, that we think that previous study is not related to all the aspects of effects of firecrackers and we work on it.

Acknowledgement

This effort is our academic endeavor would not have been reality but for the constructive and purposeful support, guidance and encouragement rendered by a number of persons, whose help we specially recognized through this acknowledgement. "Until now you have ask for nothing. In my name... ask and you will receive, so that your joy may be hopeful".

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