

A Study to Assess the Effectiveness of Structured Teaching Program on Knowledge Regarding First Aid for Burns and its Prevention Among Mothers of Under-Five Children in Selected Hospital at Bangalore

Mr. Sudhakar Golabhavi^{1*}, Ms. Shruthy Vasu. M.Sc. (N)², Prof. Mr. Anbu. T. M.Sc. (Nsg)³

¹Mr. Sudhakar Golabhavi MSc. (N) Department of Child Health Nursing, Sri Vishnu College of Nursing Bangalore

²Assist. Professor Ms. Shruthy Vasu M. Sc. (N) HOD & Department of Paediatric Nursing, Sri Vishnu College of Nursing Bangalore

³Prof. Mr. Anbu. T. M.Sc. (Nsg), Principal of Sri Vishnu College of Nursing Bangalore

⁴Department of Child Health Nursing, Sri Vishnu College of Nursing Bangalore

DOI: <https://doi.org/10.36347/sjams.2026.v14i05.005>

| Received: 15.03.2026 | Accepted: 28.04.2026 | Published: 02.05.2026

*Corresponding author: Mr. Sudhakar Golabhavi

Mr. Sudhakar Golabhavi MSc. (N) Department of Child Health Nursing, Sri Vishnu College of Nursing Bangalore

Abstract

Original Research Article

Background and Objectives: This present study was done under the topic “A study to assess the effectiveness of structured teaching program on knowledge regarding first aid for burns and its prevention among mothers of under-five children in selected hospital at Bangalore. The main objective of this study is to compare the pre and post knowledge regarding first aid for burns and its prevention among mothers of under-five children. **Methodology:** This study was done to assess the effectiveness of structured teaching program on knowledge regarding first aid for burns and its prevention among mothers of under-five children in selected hospital at Bangalore. In order to accomplish the objectives of the study, a quasi-experimental one group pre-test and post-test was adopted. In this study, the sample consists of 60 mothers of under-five children who fulfilled the inclusion criteria for the study. The non-probability purposive sampling technique was used for this study. **Findings:** The calculated knowledge t value ($t=13.346$, $P=.0000$) t value is higher than the tabulated value in the p value at 0.05 level of significance. It shows that there is a significant effectiveness on the administration of structured teaching program. Therefore, the H1 was accepted. **Conclusion:** There was a significant difference between pre-test and post-test knowledge scores as the t value is higher than the tabulated value in the p value at 0.05 level of significance. It shows that there is a significant effectiveness on the administration of structured teaching program. Therefore, the H1 was accepted. There was a significant difference between pre-test and post-test knowledge scores as the t value is higher than the tabulated value in the p value at 0.05 level of significance. It shows that there is a significant effectiveness on the administration of structured teaching program. Therefore, the H1 was accepted.

Keywords: Structured teaching program; knowledge; mothers of under-five children.

Copyright © 2026 The Author(s): This is an open-access article distributed under the terms of the Creative Commons Attribution 4.0 International License (CC BY-NC 4.0) which permits unrestricted use, distribution, and reproduction in any medium for non-commercial use provided the original author and source are credited.

INTRODUCTION

Children are the future of every country and all societies strive to ensure their health and safety. Since India's independence; continuous efforts have been made to improve the status of children. The large burden of communicable, infectious and nutritional disorders is gradually on the decline due to massive efforts and investments by successive Indian government, even though it is an unfinished agenda. Parallel to these changes, it is also becoming apparent that children saved from disease of yesterday are becoming victim of injury on road, at home and in public, recreational places. Children are naturally curious. As soon as they are mobile, begin to explore their surroundings and play with new objects, and at the same time though, they come into contact with objects that can cause severe injuries

playing with fire or touching hot objects can result in burns. [1]

In today's world, injuries have become a normal occurrence. Road traffic accidents, domestic accidents, industrial accidents and rail accidents account for a high proportion of mortality, morbidity and disability rates. Burns are often known as a form of accident of all kinds and degrees. Burns cause aesthetic issues as well as acute physical problems which may cause severe complications in the form of secondary bacterial infection, varying degrees of contactization, if not taken proper care of. Much of the impacted people are of low socio-economic status. The cost for the treatment of these injuries is high. The issue of burn injuries is more acute in developing countries because the treatment of

Citation: Sudhakar Golabhavi, Shruthy Vasu, Anbu. T. A Study to Assess the Effectiveness of Structured Teaching Program on Knowledge Regarding First Aid for Burns and its Prevention Among Mothers of Under-Five Children in Selected Hospital at Bangalore. Sch J App Med Sci, 2026 May 14(5): 672-679.

burn victims requires specialist personnel and medical technologies that are costly and not always readily accessible.[2]

Burns is defined as an injury to the skin or other organic tissue caused by thermal trauma, it occurs when some or all the cells in the skin or other tissues are destroyed by hot liquids (scalds), hot solids (contact burns), or flames (flame burns). Injuries to the skin or other organic tissue due to radiation, radio activity, electricity, friction or contact with chemicals are also considered as burns. Burns may be distinguished and classified as thermal burns, inhalational burns, first degree or superficial burns, second degree or partial-thickness burns, third-degree or full-thickness burns. Chemical burns, electrical burns and radiation burns.[3]

Burns severely harm the skin and underlying structures, indicating a serious medical emergency requiring prompt treatment. Burns can have potentially devastating injuries that range from physical, functional, and occupational injuries to cosmetic and psychosocial consequences. To keep the severity of tissue damage to a minimum and minimize the impact of pain, a prompt application of first aid for the burn is eminently important. Adequate knowledge of how to perform first aid for burns can reduce the consequences of injury.[4]

Optimal management of burns in the acute phase always begins with first aid. Immediately using cool running water from the first hours of injury can significantly impact burn outcomes and reduce healthcare complications and costs. Many studies have evaluated the level of awareness and attitude of different world populations regarding first aid. Despite the ease of performing first aid, most of these studies have shown the public's insufficient knowledge of first aid for burns. Most people use different types of topical substances for burn injuries that have no scientific basis. The most used ingredients include ice, herbal medicines, oil, honey, vinegar, flour, toothpaste and eggs. Improper use of first aid measures increases post-burn complications. Because some of the materials used are non-sterile and promote the proliferation of bacteria on the wound's surface, for example, using ice leads to vasoconstriction, leading to hypothermia, especially in children. Nevertheless, the findings of some studies have shown that the knowledge of burn first aid is more in people who participated in the first aid course.[5]

The death rate in low income and middle-income countries was eleven times higher than that in high income countries, 4.3 per 1,00,000 or against 0.4 per 1,0010000. Burns related deaths shows great regions variability. Most of the death occurs in poorer regions of the world among the WHO region of Africa and south East Asia and low income and middle-income countries of the eastern Mediterranean region. It is very important to look in to safety and security of children. This will promote sound psycho-social development of children.

Safety and security can be ensured by providing clean, safe and comfortable physical environment. [6]

MATERIAL AND METHODS

Study Design: The research design is explicit blueprint for research activities to be carried out. For the present study, a pre-experimental one group pre-test and post-test was adopted as it is a virtue of a situation that naturally happens.

Setting of the Study: The study was conducted in Kanva Hospital, Bangalore. It is an excellent well-equipped hospital that offers high quality medical care to men, women and children. A team of qualified, trained and experienced doctors, nurses and professional counselors are on hand to offer assistance & guidance to men, women & children about health aspects including reproductive choices in a confidential and supportive atmosphere. There are many mothers of under-five children.

Participants: The sample consists of 60 mothers of under-five children.

Sampling Technique: The non-probability purposive sampling technique is a strategy in which the researchers' knowledge of the population and its elements are used to select sample which are typical to the population. The non-probability purposive sampling technique, approach was found to be appropriate for the present study.

CRITERIA FOR SAMPLE SELECTION

Inclusion criteria:

- i. Mothers of under-five children who are present at the time of data collection
- ii. Mothers of under-five who is willing to participate in this study.
- iii. Mothers of under-five children who can understand either Kannada or English

Exclusion criteria:

- i. Mothers of under-five children who were not willing to participate in the study.
- ii. Mothers of under-five children who were not present at the time of data collection.

Sample Size Estimation:

The sample size is an important feature of any empirical study in which the goal is to make inferences about a population from a sample. The sample selected Mothers of under-five children from Kanva Hospital.

- The total number of Mothers of under-five children were first selected was 70
- Based on the Slovan's formula in determine the sample size.
- The sample size of the present study is approximately calculated as 60.

The calculation done as follows.

Let 'N' be the population size and the margin of error 'e' denotes the allowed probability of committing an error in selecting a sample representative of the population.

The sample size = n can be obtained by the formula The formula is $n = N / (1 + Ne^2)$

n = Sample size, N = Population, e = Margin of error

$$= 70 / (1 + (70 \times (0.05)^2))$$

At 5% level i.e., 0.05

$$= 70 / (1 + (70 \times 0.0025))$$

$$70 / (1 + 0.175)$$

$$= 70 / 1.175$$

$$59.574 \approx 60 \text{ approximately.}$$

DESCRIPTION OF DATA COLLECTION INSTRUMENT:

A socio demographic data, knowledge questionnaire on first aid for burns and its prevention among mothers of under-five children was constructed by the investigator which contains items in the following aspects.

Section – A:

Socio- demographic data consist of eight items such as age in year, type of family, religion, educational status, occupation, monthly income, family source of information, number of under-five children.

The details of socio-demographic schedule are given in annexure.

Section – B:

The knowledge questionnaire on first aid for burns and its prevention among mothers of under-five children consists of thirty items which includes basic of burns and its classification, causes and signs and symptoms, factors determining the severity of burns, prevention of burns.

Scoring:

1. Each right answer contains one mark, and the wrong answer contains zero marks.
2. The maximum mark is thirty and the minimum mark is zero.

The scores were distributed as follows.

1. Inadequate = Scores $\leq 50\%$
2. Moderate = Scores 51% to 75%
3. Adequate = Scores $> 75\%$.

STATISTICAL ANALYSIS:

Section I: Frequency and percentage distribution based on the socio demographic variables.

Section II: Assess the pre-test knowledge regarding first aid for burns and its prevention among mothers of under-five children in selected hospital at Bangalore.

Section III: Assess the post-test knowledge regarding first aid for burns and its prevention among mothers of under-five children in selected hospital at Bangalore.

Section IV: Find the effectiveness of structured teaching program on knowledge regarding first aid for burns and its prevention among mothers of under-five children in selected hospital at Bangalore.

ETHICAL CONSIDERATION:

Ethical consideration was done by taking prior permission from the Devine Care Hospital, Bangalore and Arunodaya Hospital, Bangalore and from the participants before conducting the pilot study. No ethical issues raised during the study.

RESULT

This chapter deals with the analysis and interpretation of data obtained from 60 mothers of under-five children from selected hospitals at Bangalore.

Table 1: Frequency and percentage distribution based on the socio demographic variables

S. No	Variables	Frequency	Percentage
1	Age in year		
	a. >20 years	9	15
	b. 20 – 30 years	15	25
	c. 31 – 40 years	20	33.3
	d. 41 – 50 years	16	26.7
2	Types of family		
	a. Nuclear	30	50
	b. Joint	30	50
3	Religion		
	a. Hindu	25	41.7
	b. Muslim	16	26.7
	c. Christian	13	21.7
	d. Others	6	10
4	Residential area		
	a. Urban	39	65
	b. Rural	10	16.7

S. No	Variables	Frequency	Percentage
	c. Semiurban	11	18.3
5.	Education		
	a. Illiterate	13	21.7
	b. Basic education	19	31.7
	c. Graduation	15	25
	d. Postgraduation	13	21.7
6	Occupation		
	a. No job	13	21.7
	b. Private job	14	23.3
	c. Government employee	10	16.7
	d. Coolie	15	25
	e. Business	8	13.3
7	Monthly Income		
	a. <5000	10	16.7
	b. 5000 – 10000	13	21.7
	c. 10001 – 20000	17	28.3
	d. >20000	20	33.3
8	Sources of information		
	a. electronic source	44	73.3
	b. non-electronic source	16	26.7
9	Number of children		
	a. 1	28	46.7
	b. 2 and above	32	53.3

Table 2: Pre-test knowledge levels regarding first aid for burns and its prevention among mothers of under-five children

Pretest knowledge	Frequency	Percentage
Inadequate	21	35.0
Moderate	36	60.0
Adequate	3	5.0

The above table 2 implies that in the pre-test the maximum 36(60%) samples were having moderate knowledge level, 21(35%) samples were having inadequate knowledge level, 3(5%) samples were having

adequate knowledge level regarding first aid for burns and its prevention among mothers of under-five children in selected hospital at Bangalore.

Table 3: Mean, median, standard deviation and mean percentage for the pre-test knowledge. N=60

Knowledge aspects	No. of items	Max. score	Mean	SD	Mean%
Basic of burns and its classification	8	8	4.10	1.989	51.3
Causes, signs and symptoms	7	7	3.23	1.555	53.8
Factors determining the severity of Burns	8	8	4.12	1.878	51.5
Prevention of burns	7	7	3.45	1.987	49.3
Overall	30	30	14.90	5.957	55.2

The above table 3 explains that the maximum 53.83 mean percentage was found in 'Causes, Signs and Symptoms' with mean 3.23 ± 1.555 , 51.5 mean percentage was found in 'Factors determining the severity of burns' with mean 4.12 ± 1.878 , 51.25 mean

percentage was found in 'Basic of burns and its classification' with mean 4.1 ± 1.989 , 49.29 mean percentage was found in 'Prevention of burns' with mean 3.45 ± 1.987 . The overall mean percentage was 55.2.

Table 4: Post-test knowledge levels regarding first aid for burns and its prevention among mothers of under-five children

Posttest knowledge	Frequency	Percentage
Inadequate	2	3.3
Moderate	3	5.0
Adequate	55	91.7

The above table 4 implies that the maximum 55(91.67%) samples were having adequate knowledge level, 3(5%) samples were having moderate knowledge level, 2(3.33%) samples were having inadequate

knowledge level regarding first aid for burns and its prevention among mothers of under-five children in selected hospital at Bangalore.

Table 5: Mean, median, standard deviation and mean percentage for the post-test knowledge

Knowledge aspects	No. of items	Max. Score	Mean	SD	Mean%
Basic of burns and its classification	8	8	6.92	1.169	86.5
Causes, signs and symptoms	7	7	6.00	1.074	85.7
Factors determining the severity of Burns	8	8	6.87	1.214	85.9
Prevention of burns	7	7	5.97	1.178	85.3
Overall	30	30	25.75	3.353	85.8

The above table 5 implies that the maximum 86.5 mean percentage was found in 'Basic of burns and its classification' with mean 6.92 ± 1.169 , 85.9 mean percentage was found in 'Factors determining the severity of burns' with mean 6.87 ± 1.214 , 85.7 mean

percentage was found in 'Causes, Signs and Symptoms' with mean 6 ± 1.074 , 85.3 mean percentage was found in 'Prevention of burns' with mean 5.97 ± 1.178 . The overall mean percentage was 85.8.

Table 6: Comparison of pre-test and post-test score values

Knowledge	Pretest		Post-test	
	Frequency	Percentage	Frequency	Percentage
Inadequate	21	35.0	2	3.3
Moderate	36	60.0	3	5.0
Adequate	3	5.0	55	91.7

The above table 6 implies that in the pre-test the maximum 36(60%) samples were having moderate knowledge level, 21(35%) samples were having inadequate knowledge level, 3(5%) samples were having adequate knowledge level regarding first aid for burns and its prevention among mothers of under-five children in selected hospital at Bangalore. In the post-test the maximum 55(91.67%) samples were having adequate

knowledge level, 3(5%) samples were having moderate knowledge level, 2(3.33%) samples were having inadequate knowledge level regarding first aid for burns and its prevention among mothers of under-five children in selected hospital at Bangalore. In pre-test only 3(5%) samples were having adequate knowledge, it became maximum 55(91.67%) samples in post-test. It shows the effectiveness of structured teaching program.

Table 7: Find the effectiveness of structured teaching program on knowledge regarding first aid for burns and its prevention among mothers of under-five children in selected hospital at Bangalore

Aspects	Standard error mean	Mean	SD	Df	Paired t test	Significant P<0.05
Basic of burns and its classification	0.253	2.817	1.961	59	11.123	0.000
Causes, signs and symptoms	0.233	2.767	1.807	59	11.857	0.000
Factors determining the severity of burns	0.272	2.750	2.104	59	10.123	0.000
Prevention of burns	0.302	2.517	2.230	59	8.332	0.000
Overall	0.813	10.85	6.297	59	13.346	.0000

The above table 7 shows that there was a significant difference between pre-test and post-test knowledge scores as the t value is higher than the tabulated value in the p value at 0.05 level of

significance. It shows that there is a significant effectiveness on the administration of structured teaching program. Therefore, the H1 was accepted.

Table 8: Associate the pre-test knowledge scores regarding first aid for burns and its prevention among mothers of under-five children with selected socio demographic variables such as age in years, type of family, religion and residential area

Sl. no	Socio-demographic variables	<median	>=median	Total	Df	Chi-Square Value	Table Value	Inference
1	Age in years							
	a) > 20 years	7	2	9	3	2.338	7.185	P>0.05 NS
	b) 21 – 30 years	8	7	15				
	c) 31 – 40 years	8	8	16				
d) 41 – 50 years	13	7	20					
2	Type of family							
	a) Nuclear	19	11	30	1	0.278	3.841	P>0.05 NS
b) Joint	11	13	30					
3	Religion							
	a) Hindu	16	9	25	3	5.364	7.185	p>0.05 NS
	b) Muslim	10	6	16				
	c) Christian	9	4	13				
d) Others	1	5	6					
4	Residential area							
	a) Urban	23	16	39	2	0.078	5.991	p>0.05 NS
	b) Rural	6	4	10				
c) Semiurban	7	4	11					

The above chi-square table 8 explains that there was no significant association between socio demographic variables and the knowledge levels as the

chi-square value is lower than the tabulated value at 0.05 level of significance ($p < 0.05$). Therefore, the H₂ is rejected.

Table 9: Associate the pre-test knowledge scores regarding first aid for burns and its prevention among mothers of under-five children with selected socio demographic variables such as education, occupation, monthly income, source of information and number of children. n=60

Sl. no	Socio demographic variables	<median	>=median	Total	Df	Chi-square value	Table value	Inference
5	Education							
	a) Illiterate	7	6	13	3	1.759	7.185	p>0.05 NS
	b) Basic education	10	9	19				
	c) Graduate	11	4	15				
d) Post graduate	8	5	13					
6	Occupation							
	a) No job	9	4	13	4	0.947	9.488	p>0.05 NS
	b) Private job	8	6	14				
	c) Govt employee	5	5	10				
	d) Coolie	9	6	15				
e) Business	5	3	8					
7	Monthly income							
	a) <5000	7	3	10	3	10.602	7.185	P<0.05 S
	b) 5000 – 10000	12	1	13				
	c) 10000 – 20000	6	11	17				
d) 20000 above	11	9	20					
8	Source of information							
	a) Electronic	29	15	44	1	5.401	3.841	P<0.05 S
b) Non-electronic	7	9	16					
9	Number of children							
	a) 1	16	12	28	1	0.179	3.841	p>0.05 NS
b) 2	20	12	32					

The above chi-square table 9 explains that there was a significant association between socio demographic variables such as monthly income and sources of information and the knowledge levels as the chi-square value is higher than the tabulated value at 0.05 level of significance ($p < 0.05$). Therefore, the H₂ is accepted for the selected demographic variables.

DISCUSSION

The present study has been undertaken to assess the effectiveness of structured teaching program on knowledge regarding first aid for burns and its prevention among mothers of under-five children in selected hospital at Bangalore. The finding of the study was discussed in the terms of objectives and hypotheses

stated for this study. The pre-experimental one group pre-test and post-test was adapted to elicit effectiveness of structured teaching program on knowledge regarding first aid for burns and its prevention among mothers of under-five children in selected hospital at Bangalore.

The chi-square values explains that there was a significant association between socio demographic variables such as monthly income and sources of information and the knowledge levels as the chi-square value is higher than the tabulated value at 0.05 level of significance ($p < 0.05$). Therefore, the H2 is accepted for the selected socio demographic variables.

CONCLUSION

Maximum 20(33.3%) samples age in year was 31 – 40 years, 16(26.7%) samples age in year was 41 - 50, 15(25%) samples age in year was 20 - 30 years and the remaining 9(15%) samples age in year was below 20 years. Maximum 30(50%) samples were belonged to nuclear family and the remaining 30(50%) samples were belonged to joint family. Maximum 25(41.7%) samples religion were Hindu, 16(26.7%) samples religion were Muslim, 13(21.7%) samples religion were Christian and the remaining 6(10%) samples religion were other religion. Maximum 19(31.7%) samples education was basic education, 15(25%) samples education was graduate and above, 13(21.7%) samples were illiterate, and the remaining 13(21.7%) samples education was post-graduate and above. Maximum 39(65%) samples residential area was urban, 11(18.3%) samples residential area was semiurban and the remaining 10(16.7%) samples residential area was rural. Maximum 15(25%) samples occupation was coolie, 14(23.3%) samples occupation was private job, 13(21.7%) samples occupation was no job, 10(16.7%) samples occupation was government employee, and the remaining 8(13.3%) samples occupation was business. Maximum 20(33.3%) samples monthly income was above 20000, 17(28.3%) samples monthly income was 10000 – 20000, 13(21.7%) samples monthly income was 5000 – 10000 and the remaining 10(16.7%) samples monthly income was < 5000. Maximum 44(73.3%) samples source of information was electronic media, and the remaining 16(26.7%) samples source of information was non-electronic media. Maximum 32(53.3%) samples were having 1 child and the remaining 28(46.7%) samples were having 2 children.

In the pre-test the maximum 36(60%) samples were having moderate knowledge level, 21(35%) samples were having inadequate knowledge level, 3(5%) samples were having adequate knowledge level regarding first aid for burns and its prevention among mothers of under-five children in selected hospital at Bangalore.

In the post-test the maximum 55(91.67%) samples were having adequate knowledge level, 3(5%)

samples were having moderate knowledge level, 2(3.33%) samples were having inadequate knowledge level regarding first aid for burns and its prevention among mothers of under-five children in selected hospital at Bangalore.

There was a significant difference between pre-test and post-test knowledge scores as the t value is higher than the tabulated value in the p value at 0.05 level of significance. It shows that there is a significant effectiveness on the administration of structured teaching program. Therefore, the H1 was accepted.

The chi-square values explains that there was a significant association between socio demographic variables such as monthly income and sources of information and the knowledge levels as the chi-square value is higher than the tabulated value at 0.05 level of significance ($p < 0.05$). Therefore, the H2 is accepted for the selected socio demographic variables.

RECOMMENDATIONS

In view of the finding reported the following recommendation are made for further research:

1. The study should be replicated on a large sample from various community settings.
2. The knowledge questionnaire on first aid for burns and its prevention among mothers of under-five children may be modified to include different aspects of first aid for burn and its prevention.
3. As the first aid for burns and its prevention among mothers of under-five children are influenced by various factor, they need to identify, so that we can strengthen the knowledge level.
4. An evaluative study may be carried out to find the effectiveness of counselling to promote knowledge of mothers of under-five children.

REFERENCES

1. Black. M. Joyce, Hawks Hokanson Jane, Keene. M Annabelle, Medical Surgical Nursing, Vol-2, 6th Edition.
2. NIMHANS BISB fact sheet child injury, Available from URL. http://www.censusdia.gov.in/census_data_2001/India_at_glanic/broad_aspx.
3. Burner and Suddarth text book of “Medical Surgical Nursing” volume 1 sevier publications.
4. Schiefer JL, Schuller H, Fuchs PC, et al. Burn first aid knowledge in Germany and the influences of social-economic factors. *Burns*. 2020;46(6):1458-1465.
5. Nguyen NL, Gun RT, Sparnon AL, Ryan P. The importance of immediate cooling—a case series of childhood burns in Vietnam. *Burns*. 2002;28(2):173-176.
6. Lewis, Bucher, Dirksen, O Brien, Lewi’s Medical

- Surgical Nursing, 1st ed Elsevier publications, India, 2011.
7. Park K. Park's Text book of preventive and social medicine, 2007 published by m/s Banarasidas Bhanat 19th Edition.
 8. Banu Karaoz. First-aid home treatment of burns among children and some implications at milas. *Journal of Emergency Nursing*. 2010; 36(2):111-4.
 9. http://www.who.int/entity/violence_injury_prevention/publications/other_injury/en/burns_factsheet.pdf. accessed 01 April 2024
 10. Peden M, Ogegbite K, Ozanne-Smith J, Hyder AA, Branche C, Fazlur Rahman AKM, et al. World report on child injury prevention, world health organization 2008, PP 79-93. Available from URL: <http://whqlibdoc.who.int/publications/2008/www>
 11. Olatain PB, Iyidobi EC, Olaitan JO, Ogbonnaya IS. Burns and Scalds: First-Aid Home Treatment and Implications at Enugu, Nigeria. *Annals of Burns and Disasters*. 2004;16(2):61-63. Available at: www.researchgate.net/publication/288255046_Burns_and_scalds_First_aid_home_treatment_and_implications_at_Enugu_Nigeria.
 12. Justin-Temu. M, Rimoy. G, Premji. Z, Matemu. G. Department of pharmaceuticals, MUHAS. Causes, magnitude and management of burns in under fives in district hospital in Dares salaam, Tanzania. *East African Journal of Public Health*. 2008;5(1):38-42
 13. Suresh S. *Nursing Research and Statistics*. 3rd ed. Delhi: Elsevier Health Sciences.
 14. Diane CB. *Human kinetics*. 2018 January; 3(2): 3-8.
 15. Abdulkadir Basaran. Pediatric burns and the leading factors of burn injury. *University School of Medicine*. April 2022; 32(2):109-113. Available at: DOI:10.54005/genelip.1002395
 16. Alnababtah K, Khan S. Socio-demographic factors which significantly relate to the prediction of burns severity in children. *Int J Burns Trauma*. 2017 Sep 1;7(5):56-63. PMID: 29034127; PMCID: PMC5636912.
 17. Delgado, J. et al. Risk factors for burns in children: crowding, poverty, and poor maternal education. *Inj Prev*. 2002 Mar;8(1):38-41. doi: 10.1136/ip.8.1.38. PMID: 11928972.
 18. Daisy S, Mostaque, A.K. Socioeconomic and cultural influence in the causation of burns in the urban children of Bangladesh. *J Burn Care Rehabil*. 2001 Jul-Aug;22(4):269-73. doi: 10.1097/00004630-200107000-00004.