

INTERVENTIONS FOR BURNS AND SCALD WOUND HEALING



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Abstract: Burn injury in children represents a unique form of trauma that requires continuous, holistic and preferably multidisciplinary care with long-term follow up to prevent acute wound becoming a chronic disability.

Aim: To assess the effectiveness of structured teaching programme on interventions for burns and scalds wound healing among mothers of under-fives.

Methodology: Quasi experimental one group pretest post test design was adopted. A sample of 50 mothers was selected using convenient sampling technique. Pretest and posttest data was collected using structured questionnaire. Post test was collected one week after structured health teaching program. Data analysis was done using descriptive and inferential statistics.

Results: The pretest and post test scores reveals that 72% and 46% had inadequate knowledge, and 2% and 16% had adequate knowledge respectively.

Conclusion: There is a significant difference between pretest and post test mothers knowledge at $p < 0.001$.

Key words: burn injury, trauma, multidisciplinary team, disability, acute wound

Introduction:

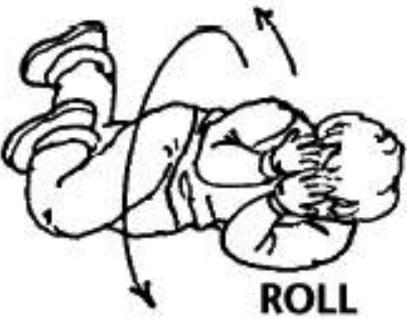
A burn is an injury to the skin or other organic tissue primarily caused by heat or due to radiation, radioactivity, electricity, friction, or contact with chemicals. Burns are a global health problem accounting for an estimation of 2, 65,000 deaths annually. Burns are the 11th leading cause of death of children aged 1 - 9 years. In India, over 10 lakh people are moderately or severely burnt every year. Burns cause aesthetic problems as well as acute physical problems and if not taken proper care, they can cause serious complications in the form of secondary bacterial infection, various degrees of contractures which restrict the daily activities. Eg. septicemia. Despite many medical advances, burns continue to remain a challenging problem due to the lack of infrastructure and trained professionals as well as the increased cost of treatment. However, if the principles

of first aid are properly applied, a great degree of suffering due to burns can be avoided.

Need for study:

The burn child undergoes a wide range of physiologic and metabolic changes in response to the burn injury. Many more children suffer burn related disabilities and disfigurements leading to considerable personal and economic effects for both individuals and their families.

In 2011, a study was conducted to assess prevalence and correlations related to sub optimal outcome after pediatric burns. A cross-sectional study is done on quality of life after burns in a sample of 138 children aged 5-15 years admitted to a burn centre. Results revealed that children after burns experience substantial problems, mainly, itch and bad appearance and several psychological dimensions.



In 2008, a retrospective study was conducted on 5 year review of the epidemiology and outcomes associated with pediatric upper extremity burns treated at an urban health centers. A sample of Two hundred and sixty nine children with burns was selected. Results revealed that mechanism of burn included direct contact (47%), scalds (29%), flame (12%), electrical (10%), and friction or chemical (1.5%). Fifty percent of patients suffered from burns over less than 1% BSA to 95% had burns on less than 5% TBSA,

75% of patients have second degree burns, 21% had first degree burns, and 2% had third degree burns forty patients had plastic surgery consultation, seven required skin grafting, complications occurred in five (2%) patients. Education to parents and physicians should be reemphasized.

The burn client undergoes a wide range of physiologic and metabolic changes in response to the burn injury. So the investigator felt one should know about the interventions of burns and scalds wound healing to prevent the occurrence of complications.

Problem statement:

“A study to assess the effectiveness of structured teaching programme on management of burns and scalds wounds among mothers of under-fives admitted in pediatric ward at SVRR GGH”.

Objectives:

- ❖ To assess knowledge on management of burns and scalds wounds among mothers of under-fives
- ❖ To evaluate the effectiveness of structured teaching program on management of burns and scalds wounds among mothers of under-fives
- ❖ To associate the level of knowledge on management of burns and scalds wounds among mothers of under-fives with their selected demographic variables

Hypothesis: There is a significant difference in the knowledge of mothers of underfives on management of burns and scalds wounds before and after structured teaching program.

Methodology

Research design: Quasi experimental one group pretest and post test design.

Setting: The study was conducted in pediatric ward, SVRRGG Hospital Tirupati, Chittoor district, Andhra Pradesh.

Sample: A sample of 50 mothers of under five children

Sampling technique: Convenient sampling technique.

Instrument: The study was carried out by using a structured questionnaire. It consists of 3 sections:

Section-I: This consists of socio demographic data such as age of mother and child, education and occupation of mother and father, type of house, number of rooms, mode of coking, religion, type of family, mode of preserving hot foods and fluids, source of information regarding burns and scalds management were recorded.

Section-II: It consists of 10 multiple choice questions related to knowledge regarding management of burns and scalds wounds.

Section-III: It consists of 15 statements of self reported checklist on practice of burns and scald wound care

Score Interpretation:

The scores were interpreted in the following manner: knowledge and knowledge on practices scores

<50% : Inadequate knowledge

50-75% : Moderately adequate knowledge

>75% : Adequate knowledge

Content validity: Questionnaire and structured teaching was validated by experts from the department of pediatrics, S.V.R.R.G.G.H, Tirupati, and from department of child health nursing from various government and private nursing colleges, Tirupati.

Pilot study: The pilot study was conducted with a sample size of 10 mothers of under fives. Reliability of the instrument on knowledge was 0.98 and on practices was 0.99.

Data collection procedure: Data collection was done at SVRR GGH Tirupati. A sample size of 50 mothers having under-five children were selected by using convenient sampling technique and the purpose of the study was explained. The mothers were divided into 5 groups. Pre-test was conducted to using structured questionnaire and checklist. Structured teaching programme was carried out for all the groups. Post-test was conducted using same questionnaire after 1 week of structured teaching programme.

Data analysis: Descriptive statistics and inferential statistics were used to analyze the data.

Results:

Table - 1: Distribution of level of knowledge and knowledge on practices regarding interventions on burns and scalds wound healing in pretest.

Table - 1: shows that among 50 mothers of under-fives 94%(47), had inadequate knowledge and 6%(3), had moderate knowledge 50% (25) had adequate on practice in pretest respectively. Overall level of knowledge in pre-test shows that 72% had inadequate knowledge, 26% had moderate knowledge and 2% (1) had adequate knowledge had moderate knowledge, and 2%had adequate knowledge.

Sl. No	Variables	Level of knowledge					
		Inadequate knowledge		Moderate knowledge		Adequate knowledge	
		f	%	f	%	f	%
1.	Knowledge	47	94	3	6	0	0
2.	Knowledge on practices	2	50	24	48	1	2
	Total Knowledge	36	72	13	26	1	2

Table - 2: Distribution of level of knowledge and knowledge on practices regarding interventions on burns and scalds wound healing in post test.

Table - 2: shows that among 50 mothers of under-fives 64%(32) had inadequate knowledge,22%(11), had moderate knowledge and 14%(7), had adequate knowledge in post test. Overall level of knowledge in pre-test shows that 46% had inadequate knowledge, 38% had moderate knowledge, and 16 % had adequate knowledge.

The second objective was to evaluate the effectiveness of structured teaching programme on interventions of burns and scalds wound healing.

Sl. No	Variables	Level of knowledge					
		Inadequate knowledge		Moderate knowledge		Adequate knowledge	
		f	%	f	%	f	%
1.	Knowledge	32	64	11	22	7	14
2.	Knowledge on practices	16	32	25	50	9	18
	Total Knowledge	23	46	19	38	8	16

Table-3: Effectiveness of structured teaching programme regarding interventions on burns and scalds wound healing.

Sl. No	Variables	Score improvement		't' value	'p' value	significance
		Pre - test	Post - test			
1.	Knowledge	3.22	4.80	8.965	0.001	***
2.	Knowledge on practices	7.08	8.76555	7.006	0.001	***
	Total Knowledge	10.32	13.26	8.228	0.001	***

Table 3 indicates that there was a significant improvement in knowledge and knowledge on practices regarding interventions on burns and scalds wound healing at $p < 0.01$ level.

The third objective was to associate the relationship between sociodemographic variables with level of knowledge and knowledge on practices related to interventions on burns and scalds wound healing.

It shows that in pretest the association between the level of knowledge and the education of mother was significant at $p < 0.01$ level. In the post-test the association between the level of knowledge and the total number of rooms was significant at $p < 0.01$ level.

Major findings of the study revealed that regarding overall level of knowledge in pre-test, 72% had inadequate knowledge, 26% had moderate knowledge, and 2% had adequate knowledge.

Overall level of knowledge in post-test shows that 46% had inadequate knowledge, 38% had moderate knowledge, and 16% had adequate knowledge.

The effectiveness of health education was determined using paired t test. The level of knowledge on interventions was significant at $p < 0.001$ level and level of knowledge on practices related to interventions at $p < 0.001$ level.

Association between the demographic variables and level of knowledge and the education of mother was significant at $p < 0.01$ level in the post test ,the association between the level of knowledge and the total number of rooms was significant at $p < 0.01$ level

Conclusion:

Overall level of knowledge in pre-test shows that 72% had inadequate knowledge, 26% had moderate knowledge, and 2% had adequate knowledge. Overall level of knowledge in post-test shows that 46% had inadequate knowledge, 38% had moderate

knowledge, and 16% had adequate knowledge. The data proved that knowledge of mothers had increased after administering structured teaching programme. Hence hypothesis is accepted.

Recommendations:

- ❖ A comparative study can be done between urban and rural mothers.
- ❖ Same study can be replicated using large sample
- ❖ Same study can be done on nursing students.

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