

“EFFECTIVENESS OF FIRST AID TRAINING PROGRAM ON KNOWLEDGE AND ATTITUDE RELATED TO CHILD SAFETY MANAGEMENT AMONG PARENTS HAVING 3–6-YEAR-OLD CHILDREN IN A SELECTED HEALTH CENTER AT CHENGALPATTU DISTRICT.”

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Abstract

This study aims to assess the effectiveness of a first aid training program in improving knowledge and attitude related to child safety management among parents of children aged 3–6 years. A quantitative pre -experimental design with a pretest and post-test single group approach was used. Using a structured questionnaire, 100 parents were evaluated before and after the training intervention. Results showed a significant improvement in both knowledge and attitude levels after the training with a p-value < 0.05. The findings indicate that tailored first aid training serves as an effective educational strategy to enhance parental preparedness and response to child safety emergencies.

Introduction

Child safety management is a vital aspect of pediatric health promotion. Parents of young children aged 3–6 years often face situations requiring immediate first aid responses. Lack of first aid awareness can result in adverse outcomes during common home injuries such as burns, falls, or choking. Structured training programs can empower parents by strengthening their knowledge and attitude toward child safety. This study evaluates the effectiveness of a structured first aid training program provided to parents in a selected health center at Chengalpattu district.

Objectives

1. To assess the pre-intervention level of knowledge and attitude on child safety management among parents of children aged 3–6 years.
2. To evaluate the post-intervention level of knowledge and attitude after the first aid training program.
3. To determine the effectiveness of the first aid training program on knowledge and attitude related to child safety management.
4. To find the association between post-test knowledge and attitude scores with selected demographic variables.

Methodology:

A pre-experimental pre-test–post-test single group design was employed. The target population consisted of parents having 3–6-year-old children attending a selected health center in Chengalpattu district. A total of 100 parents were selected using purposive sampling based on eligibility criteria—those willing to participate and available during data collection.

A structured questionnaire assessed knowledge and attitude regarding child safety and first aid management. Tool validity was established through expert review. Reliability testing yielded a correlation coefficient of $r = 0.82$. After ethical clearance and informed consent, pre-test data were collected, followed by a structured first aid training session utilizing demonstration and interactive discussion with visual aids. Post-test evaluation was done after one week using the same tool.

Statistical analysis included descriptive (frequency, mean, percentage) and inferential statistics (paired t-test and chi-square test) to evaluate program effectiveness and associations. A p-value < 0.05 was considered significant.

Results:

Demographic variables:

The majority of participants were aged 25–35 years (41%), predominantly female (54%), and had secondary educational qualifications (47%). Most belonged to nuclear families (71%) and the middle socioeconomic group (37%). A large proportion (82%) reported no prior CPR or first aid training.

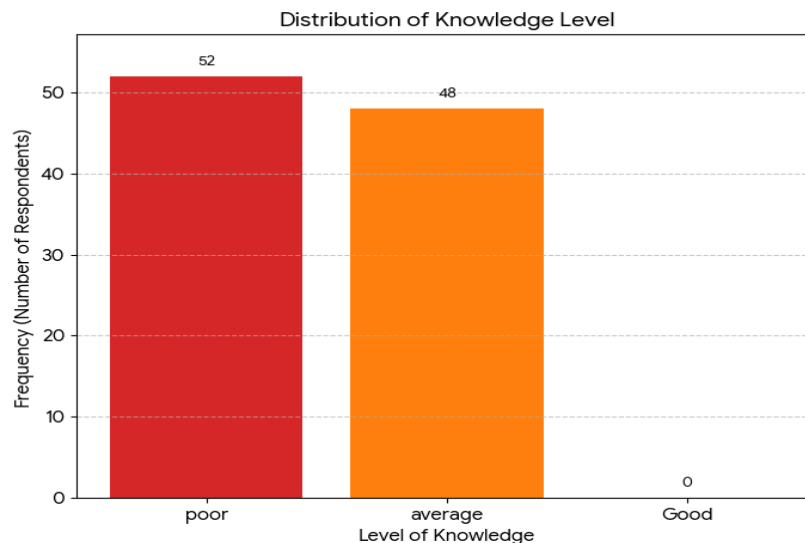
Demographic Variable	Category	Frequency	Percentage (%)
Age	20-25	36	36%
	25-35	41	41%
	35-44	23	23%
	45years and above	0	0%
Gender	female	54	54%
	Male	46	46%
Education	illiterate	13	13%
	primary	47	47%
	postgraduate	39	39%
Occupation	Home maker	47	47%
	Employed	18	18%
	Employed health /educational sector	35	35%
Socio-economic status	low	25	25%
	Middle	37	37%

Demographic Variable	Category	Frequency	Percentage (%)
	High	38	38%
Family structure	Nuclear	71	71%
	Joint family	29	29%
No of children 3-6 yr	one	44	44%
	two	30	30%
	three	26	26%
Previous Training of CPR or first aid	yes	18	18%
	no	82	82%
Heard of first aid	yes	43	43%
	no	57	57%
Home injuries	yes	44	44%
	No	55	55%

Section 1: Structured questionnaire to assess the level of Knowledge

Level of knowledge	score	frequency	percentage
poor	0 -10	52	52%
average	11 -15	48	48%
Good	16 -20	0	0%

The structured questionnaire administered to assess the level of knowledge revealed that the majority of participants possessed **poor** to **average** knowledge. Specifically, over half of the participants, 52% (n=52), fell into the **poor** knowledge category, scoring between 0 and 10. The remaining 48% (n=48) of the participants demonstrated an **average** level of knowledge, with scores ranging from 11 to 15. Crucially, **none** of the participants (0%) achieved a score in the **good** knowledge category (16 to 20), indicating a widespread deficit in the knowledge being assessed.



Section 2: Structured questionnaire to assess the level of attitude

Level of Attitude	score	frequency	percentage
Strongly Disagree	0 -15	0	0%
Disagree	16 -30	43	43%
Neutral	31 -45	57	57%
Agree	46 - 60	0	0%
Strongly Agree	61 - 75	0	0%

Strongly Disagree0 - 15Disagree16 - 30Neutral31 - 45Agree46 - 60Strongly Agree61 - 75

The assessment of the participants' attitude level indicated that responses were confined to the **Neutral** and **Disagree** categories. A majority of the participants, **57%** (**n=57**), reported a **neutral** attitude, scoring in the **31** to **45** range. The remaining significant portion, **43%** (**n=43**), expressed **disagreement**, with scores between **16** and **30**. Critically, there were **no** participants (**0%**) who scored in the strongly positive (Agree or Strongly Agree) or strongly negative (Strongly Disagree) ranges. This distribution suggests a general lack of a strongly positive or negative opinion, with attitudes largely clustering around **indecision or mild opposition** toward the subject of the questionnaire.

Section:3 To Assess the effectiveness of knowledge and attitude using T- test

Test	Mean (X ⁻)	Standard Deviation (SD)	Mean Difference (D ⁻)	t-value	df	p-value
Pre-test Score	10.60	2.50	-7.59	-25.22	99	$p < 0.001$
Post-test Score	18.19	1.81				

Section:3

The results of the paired t-test demonstrated a highly statistically significant improvement in scores following the intervention. The mean pre-test score was recorded at **10.60** (SD = **2.50**), which

substantially increased to a mean post-test score of \$18.19\$ (SD = \$1.81\$). This yielded a large mean difference of \$-7.59\$, which, when subjected to the paired t-test, resulted in a highly significant t-value of \$-25.22\$ with \$99\$ degrees of freedom (\$p < 0.001\$). The p-value being far below the conventional \$0.05\$ threshold confirms that the observed change was not due to chance, providing robust evidence for the strong effectiveness of the intervention in improving the measured outcome.

Section : 4 Association between post-test knowledge and attitude scores with selected demographic variables.

Demographic Variable	Test Value (Knowledge)	p-value (Knowledge)	Test Value (Attitude)	p-value (Attitude)	Significance
Age	0.85	0.43	1.02	0.41	NS
Gender	1.11	0.29	0.92	0.36	NS
Education	3.67	0.03	2.91	0.04	S
Occupation	2.42	0.09	2.50	0.08	NS
Socioeconomic Status	3.21	0.05	3.44	0.04	S
Family Type	0.78	0.44	0.64	0.52	NS
No. of Children	2.13	0.12	2.25	0.10	NS
Previous First Aid/CPR Training	2.56	0.01	2.33	0.02	S
Heard of First Aid	1.21	0.23	1.02	0.31	NS
History of Home Injuries	1.48	0.18	1.27	0.21	NS

S = Significant ($p < 0.05$)

NS = Not Significant

Section : 4

This table summarizes how post-test knowledge and attitude scores relate to each selected demographic factor using t-tests or ANOVA based on variable type (binary or multi-category). Significant associations were observed with education, socioeconomic status, and previous first aid/CPR training.

DISCUSSION:

The results align with previous studies emphasizing the role of structured parental education in enhancing first aid competencies. Effective first aid training equips parents with essential response skills to prevent escalation of injuries and ensures timely management of common childhood emergencies. The observed improvement in post-test scores underlines the importance of regular community-based educational programs.

CONCLUSION:

The study concludes that a structured first aid training program significantly improves knowledge and attitude related to child safety management among parents of 3–6-year-old children. Integrating such initiatives within routine child health services could reduce preventable injuries and foster safer environments for young children.

RECOMMENDATIONS:

Conduct periodic first aid workshops in local health centers and preschools.
Include first aid education in antenatal and parenting classes.
Develop multilingual printed and digital awareness materials for public dissemination.
Encourage community health nurses to incorporate child safety education in family visits.

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