

Effectiveness of Structured Teaching Programme on Knowledge regarding First Aid Management of Selected Bites and Stings among the Mothers of under Five Children at Bhubaneswar, Odisha

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Abstract: Improving knowledge and attitude of the mothers will increase their motivation and self-competence in conducting first aid measures for their children. Therefore; aiming to achieve self-care behavior of caregivers, the objectives of this study were: to evaluate maternal knowledge regarding first aid management of bite and stings of under five children. A one group pretest posttest pre-experimental design was conducted on mothers. The data was collected from 60 mothers by non-probability purposive sampling technique by using closed ended multiple questionnaires. The collected data were analyzed by using descriptive and inferential statistics. The level of knowledge of mother regarding first aid management revealed that in pre-test that 3.3% mother had POOR knowledge, 56.7% mother had the AVERAGE knowledge, 33.3% children had GOOD knowledge and only 6.7% mother had Excellent knowledge. In the post-test shows that POOR knowledge reduced to 1.7%, AVERAGE knowledge reduced to 13.3% whereas GOOD knowledge increased to 58.3% and excellent knowledge increased to 26.7%. The paired 't' test was calculated to find out the difference between pre and posttest knowledge score, the result showed that paired "t" value was highly significant than the table value at $p < 0.05$ level of significance i. e., the calculated "t" value is 7.773. The Chi square test proved there was no significant association between pretest knowledge score among mother of under five children when compared to age, religion, mother's education, mother's occupation, monthly family income, type of family, type of house, type of domestic animals, previous knowledge and source of knowledge at 5% level of significance.

Keywords: Maternal knowledge, first aid management, bite and sting care, pretest posttest study, caregiver education, Structured teaching Programme

1. Background of study

It only takes a split Second for a child to get bitten and stung by something. Bites may cause injuries ranging from superficial scratches to extensive wounds and often become infected with bacteria from the mouth of the biting creature.1

Certain animals, insects, and arthropods can inject venom (poison) through mouthparts or a stinger. These venoms range in toxicity from mild to life threatening. Even mildly toxic venoms may cause serious allergic reactions. Creatures known for their stinging bites include Bees, wasps, and hornets, Centipedes and millipedes, Insects, Jellyfish etc. Doctors diagnose most bites and stings by talking with and examining the person. If a wound is deep, x-rays or other imaging studies are sometimes done to look for teeth or other hidden foreign material. The most effective way to prevent infection and scarring is usually thorough cleaning and proper wound care, done as soon as possible.2

Not all bites or stings are the same. You will need different first aid treatment and medical care depending on what type of creature has bitten or stung you. Some species can cause more damage than others. Some people also have allergies that raise the risk of a serious reaction.

Children, particularly those younger than 10 years old, are generally considered to be at highest risk for dog bites. The immediate consequences of such events include both physical and mental trauma as well as infection by zoonotic agents³.

Quite likely because of their relatively small size, children are also over-represented among persons who are hospitalized or die consequent to a dog attack⁴.

Posttraumatic stress disorder is also a potential sequel to a bite event, with some child-victims requiring psychological treatment and displaying emotional distress for extended periods⁵.

Studies have reported that children are more likely to be bitten in the face, neck, or head than adults, sometimes resulting in permanent scars and/or loss of function to sensitive areas of the body⁶.

A dog bite also threatens the welfare of the offending animal, as consequences often include removal from the home due to relinquishment to a shelter⁷.

Insect bites and stings are very common in children, especially during the spring and summer months. Among the arthropods that often bite and sting are spiders, ticks, mites, mosquitoes, flies, fleas, ants, bees, and wasps. While most insect bites only result in mild local reactions, they can cause more serious conditions, such as anaphylactic reactions and Lyme disease.8

Problems Caused by Insect Bites

- **Impetigo.** A local bacterial infection. Gives sores, soft scabs and pus. Caused by scratching or picking at the bites. More common in itchy bites.

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- **Cellulitis.** The bacterial infection spreads into the skin. Gives redness spreading out from the bite. The red area is painful to the touch.
- **Lymphangitis.** This is a bacterial infection that spreads up the lymph channels. Gives a red line that goes up the arm or leg. More serious because the infection can get into the bloodstream. (This is called sepsis.)⁹

“Accidents do happen,

Make first aid as your best mate:

“Safety doesn’t happen accidentally it’s the routine enlightenment of knowledge on first aid.”

Accidents can happen anywhere at any time, even though some safety measures are still existing. The immediate and appropriate measure taken at the right time can save the life of the patient. It is called as First aid and is defined as "The temporary and immediate treatment given to a person who is injured or suddenly becomes ill using facilities or materials available at that time before regular medical care at earliest". It is usually performed by non - expert, but trained personnel¹⁰.

The first aid is given to preserve and protect life, prevent further injury or deterioration of the victim, and help to promote recovery. The objectives of the study were to assess the pre - test knowledge scores regarding first aid of pediatric emergencies among mothers of 1 - 6 years children, to evaluate the effectiveness of an instructional module regarding first aid of pediatric emergencies on knowledge among mothers of 1 - 6 years children, to find out the association between the post - test knowledge scores of mothers with their demographic variables.¹¹

2. Need for the Study

According to WHO Worldwide, up to five million people are bitten by snakes every year. Of these, poisonous (envenoming) snakes cause considerable morbidity and mortality. There are an estimated 2.4 million envenomation’s (poisonings from snake bites) and 94 000–125 000 deaths annually, with an additional 400 000 amputations and other severe health consequences, such as infection, tetanus, scarring, contractures, and psychological sequelae. Poor access to health care and scarcity of antivenom increases the severity of the injuries and their outcomes. The majority of snake bites occur in Africa and South - East Asia. Snake bites are most common among people living in rural, resource - poor settings, who subsist on low - cost, non - mechanical farming and other field occupations. Agricultural workers, women and children are the groups most frequently bitten by snakes. Adding to the burden of these injuries is their socioeconomic impact on families and communities. Child victims can suffer lifelong disability intensifying demands on families and communities.

Low and middle - income country data are more fragmented, however some studies reveal that dogs account for 76–94% of animal bite injuries. Dog bite fatality rates are higher in low - and middle - income countries than in high - income countries as rabies is a problem in many of these countries, and there may be a lack of post - exposure treatment and appropriate access to health care. An estimated 59 000 people

die annually from rabies, and bites from rabid dogs account for the vast majority of these deaths.

Worldwide, cat bites account for 2–50% of injuries related to animal - bites. They are commonly second to dog bites in terms of incidence. In Italy for example, the incidence of cat - related injuries is 18 per 100 000 population, while in the United States of America, there are an estimated 400 000 cat bites and 66 000 visits to hospital emergency departments every year.¹²

Most stings are minor, producing local pain and paresthesia. Less than 5% of stings result in neurotoxicity, and the majority of these occur in children. Stings typically do not produce a visible skin lesion, although on rare occasion a small red mark is noted. Pain is immediate, and in a grade 1 envenomation remains local and resolves quickly. Grade 2 envenomations involve pain and paresthesiadistal from the sting site, which can persist for days to weeks.

Most severe envenomations affect children younger than 5 years. Symptoms develop within 5 to 45 minutes and can progress for 4 hours. Infants and toddlers can exhibit sudden agitation and crying and transient vomiting, and they might rub their face and ears in response to paresthesias. If the child is verbal, complaints of burning pain and sensation of tongue swelling are common. Sinus tachycardia, hypertension, low - grade fever, and hypersalivation are common, and some children develop stridor. Restlessness, agitation, and twisting of the trunk with thrashing of the extremities is typical, as are tongue fasciculations and dysconjugate eye movements, or opsoclonus. Patients are conscious but often keep their eyes closed owing to diplopia. Diagnosis often relies on recognition of symptoms, because children might not report a sting. Characteristic findings in regions inhabited by this scorpion usually make diagnosis straightforward. Differential diagnosis includes seizures or amphetamine toxicity. If a suspected envenomation does not follow the expected clinical course, a urine drug screen should be obtained¹³.

Stings symptoms usually involve local swelling and pain without a systemic reaction. Swelling of the upper airway is a hazard, but is a rare occurrence with one sting. The danger arises when multiple stings occur to the victim, and large numbers have been fatal. An anaphylactic reaction may occur shortly after a sting, in sensitive individuals. Fatalities can occur within minutes. Treatment is symptomatic and supportive for life support and care of the local area of the bite, depending on the severity of the symptoms. Avoidance, if possible, and emergency epinephrine kits for sensitive individuals can be helpful prevention measures.¹⁴

A retrospective study was conducted amongst the children of the age group up to 12 years admitted to a tertiary care hospital in Kolkata from January 2005 to December 2008. Total number of admissions was 17019 and that for accidental poisoning was 451 (2.65%). The number of admissions due to stings and bites was 108 (0.63% of all admissions) during the above period. Of all the cases, 9 (1.83%) cases of accidental poisoning and 4 (3.7%) cases of stings and bites died.¹⁵

Mothers are always in direct contact with their children at home particularly from infancy and through the preschool age. The most challenging duty for mothers is to provide a safe environment for their children to minimize or prevent injury. Prevention of home injuries in children has become an essential objective for children’s wellbeing and health promotion ¹⁶.

First aid can define as helping behaviors and initial care provided for an acute illness or injury. The goals of a first - aid provider include preserving life, alleviating suffering, preventing further illness or injury, and promoting recovery ¹⁷. Immediate provision of first aid to victim can marks.

Parents knowledge and attitude toward emergency management is especially important for children particularly mother’s as she spent most of the time with her children at home¹⁸.

Improving knowledge and attitude of the mothers will increase their motivation and self - competence in conducting first aid measures for their children. Therefore; aiming to achieve self - care behavior of caregivers, the objectives of this study were: to evaluate maternal knowledge regarding first aid management of bite and stings of preschooler.¹⁹

3. Problem Statement

“Effectiveness of structured teaching programme on knowledge regarding first aid management of selected Bites and Stings among the mothers of under five children at Chakeisiani, Bhubaneswar, Odisha.”

Objectives of the Study:

- To assess the existing knowledge regarding first aid management of selected bites and stings among the mothers of under five children.
- To administer the STP on knowledge regarding first aid management of selected bites and stings among the mothers of under five children.
- To evaluate the effectiveness of structured teaching programme on knowledge regarding first aid management

of selected bites and stings among the mothers of under five children.

- To find out the significance difference between pretest and posttest knowledge regarding first aid management of selected bites and stings among the mothers of under five children.
- To find out the association between pre - test knowledge score regarding first aid management with the selected demographic variables.

Research Methodology

Research Design: pre - test, and post - test design was used for the study.

Research setting: The study conducted at Chakeisiani, Bhubaneswar, Odisha.

Sample: 60 mothers of under - five children.

Sampling technique: Non probability Purposive sampling technique was used.

Method of data collection: Structured knowledge questionnaire.

Tools Used: Structured knowledge questionnaire and Structured teaching programme (STP)

Validity: validity done by consultation with guide and experts.

Reliability: r=0.82.

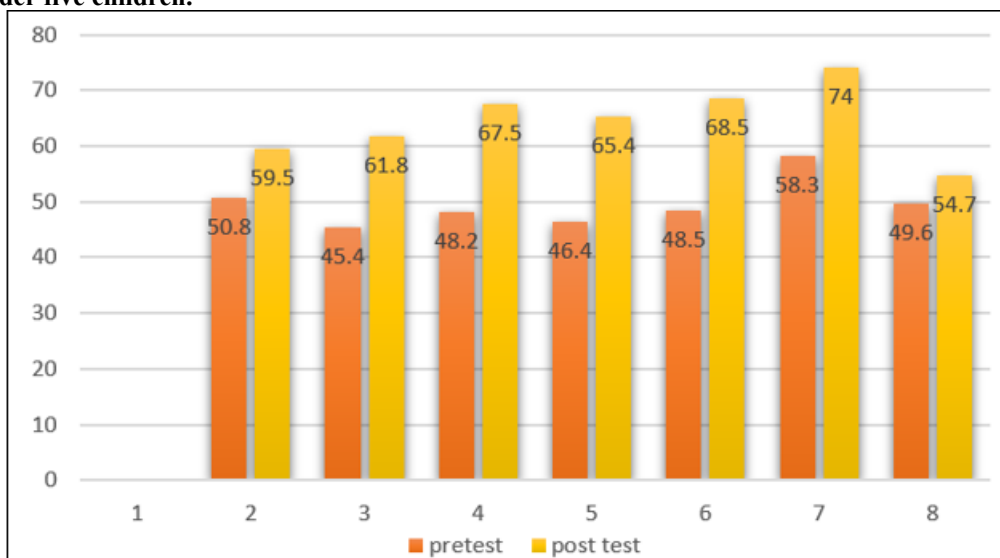
4. Result

- Majority of the mother were between 31 - 35 years (41.7%), Most of mothers were Hindus (86.7%), Muslims were (10%) and only 3.3% were Christian, Highest 36.7% of mothers had secondary educational status, Majority of the mothers’ were daily labor (41.7%), Majority percentage 50% of the mother had nuclear family.
- Area wise comparison of pre and posttest knowledge score regarding first aid management of selected bite and stings among mothers of under five children.
- Effectiveness of structured teaching programme (STP) regarding first aid management of selected bite and sting among under five mothers.
- Association between pretest knowledge with the selected demographic variables of mothers of under five children.

Area wise distribution of mean, standard deviation, mean percentage of pretest and posttest knowledge scores of under - five mothers regarding first aid management of selected bite and stings.

S. No.	Area	Pre Test			Post Test			Difference in mean % (Y - X)
		Mean	SD	Mean% (X)	Mean	SD	Mean% (Y)	
1.	General information about bite and stings	3.05	1.333	50.8	3.57	1.477	59.5	8.7
2.	Snake bite	3.18	1.157	45.4	4.33	1.503	61.8	16.4
3.	Dog and cat bite	3.38	1.519	48.2	4.73	1.656	67.5	19.3
4.	Scorpion sting	2.32	1.127	46.4	3.27	1.260	65.4	19
5.	Bee sting	1.0	.712	48.5	1.37	.712	68.5	20
6.	Wasp sting	1.75	.836	58.3	2.22	.865	74	15.7
	Over all	27.55	8.227	49.6	36.75	8.942	54.7	5.1

Bar diagram for area wise comparison of pre and posttest knowledge score of management of bite and stings among mothers of under five children.



Effectiveness of STP on knowledge regarding management of bite and stings among mothers of under five children.

AREA	't' Value	Level of Significance
General information about bite and stings	2.236	Significant
Snake bite	5.593	Significant
Cat and dog bite	5.742	Significant
Scorpion sting	4.729	Significant
Bee sting	3.352	Significant
Wasp sting	3.969	Significant

Comparison between overall knowledge scores of pre test and post of the under five mothers regarding first aid management of selected bite and stings

Groups	Mean	Sd	Mean Difference	't' Value	Table Value (P≤0.05)
Pre test	27.55	8.227	9.20	7.773	2.00

Association between pre test knowledge scores of the under five mothers regarding first aid management of selected bite and stings with their selected demographic variables, N=60

Demographic variables	Chi square value (χ ²)	Df	Table value	Level of significance
Age of mothers in years	.33	9	16.92	Not significant
Religion	.07	6	12.59	Not significant
Status of mother education	.37	9	16.92	Not significant
Occupation of mother	.33	9	16.92	Not significant
Monthly family Income	.33	9	16.92	Not significant
Types of family	.40	6	12.59	Not significant
Types of house	.37	6	12.59	Not significant
Type of domestic animals are present in house	.07	9	16.92	Not significant
Previous knowledge about any insect bite and stings	.67	3	7.82	Not significant
Source of knowledge regarding insect's bite and stings	.17	12	21.03	Not significant

(P≤0.05)

5. Discussion

- The scores in pre test depicts that maximum number of under - five mothers of 56.7% were secured score between 08 - 14 shows that average level of knowledge. 20 number of postnatal mothers of 33.3% were secured score between 15 - 22 reveals that good knowledge, 6.7% of postnatal mothers were secured score between 21 - 30 shows that excellent level of knowledge and 3.3% of under - five mothers were secured between 1 - 7 shows that poor knowledge.

- In post test maximum postnatal mothers with 58.3% were secured score between 15 - 22 depicts that good level of knowledge after implementing structured teaching programme. 16 under five mothers with 26.7% were secured score between 23 - 30 shows that excellent level of knowledge but 13.3% secured score between 8 - 14 shows average knowledge, only 01 under five mother with 1.7% was secured score between 1 - 7 shows poor knowledge after structured teaching programme.
- Hence it is inferred that there is great difference in pre test & post test knowledge score on first aid management of selected bite and stings of under - five mothers. It is

revealed that under five mothers gain knowledge after implementation of structured teaching programme regarding first aid management of selected bite and stings. This finding is supported by a study is conducted by OB Ogunfowora (2006) who found that there is a big difference between pre and post test knowledge.

- The overall pre test mean score was 27.55 ± 8.227 whereas post test mean score was 36.75 ± 8.942 with mean difference 9.20. The overall 't' value calculated is 7.773. It is higher than tabulated value (2.00) with $df = 49$ at 5% level of significance. So null hypothesis is rejected. It is inferred that under - five mothers have higher post test knowledge after implementing structured teaching programme which shows effectiveness of structured teaching programme. It is supported by Dr. Ricky 2014.
- Chi square is calculated to find out the association between pre test knowledge scores of the under five mothers with their selected demographic variables. It is found that there is no significant association between pre test knowledge scores among postnatal mothers regarding first aid management of selected bite and stings when compared to age of mothers, Religion, Status of mother education, Occupation of mother, Monthly family Income, Types of house, type of domestic animals are present in house, **previous** knowledge about any insect bite and stings, source of knowledge regarding insect's bite and stings at $P \leq 0.05$ level of significance.

6. Summary

A pre experimental design was used to assess the effectiveness of structured teaching programme on first aid management of selected bite and stings among under five mothers in Chakeisiani, Bhubaneswar, Odisha. The data was collected from 60 under five mothers by purposive sampling technique by using multiple choice close ended questionnaires. Data were collected from 27.05.2023 to 02.06.2023. The data collected were analyzed by using descriptive and inferential statistics and presented in the form of tables and diagrams.

7. Conclusion

From the findings of the present study is concluded that Video Assisted Teaching Module on selected neonatal danger signs among postnatal mothers is effective for improving knowledge of post natal mothers.

In pre test the postnatal mothers have 6.7% of knowledge but after implementation of structured teaching programme under five mothers have excellent knowledge of 26.8% during post test. It predicts effectiveness of structured teaching programme. There is significant difference in pre test & post test knowledge score after structured teaching programme. There is no significant association between pre test knowledge of under - five mothers with selected demographic variables

References

Journals

- [1] Harere, R., Makhdoom, Y., Sonbul, H., & Habadi, M.: Knowledge regarding first aid of childhood emergency

- conditions among caregivers attending primary health care centers; Imperial Journal of Interdisciplinary Research, 2017; 3 (11).
- [2] Robert A. Barish University of Illinois at Chicago; homas Arnold, MD, Department of Emergency Medicine, LSU Health Sciences Center Shreveport, Full review/revision Jun 2022
- [3] Damborg P, Broens EM, Chomel BB, Guenther S, Pasmans F, Wagenaar JA, et al. Bacterial zoonoses transmitted by household pets: state - of - the - art and future perspectives for targeted research and policy actions. *J Comp Pathol* (2016) 155: S27–40. doi: 10.1016/j.jcpa.2015.03.004
- [4] Ozanne - Smith J, Ashby K, Stathakis VZ. Dog bite and injury prevention – analysis, critical review, and research agenda. *Inj Prev* (2001) 7: 321–6. doi: 10.1136/ip.7.4.321
- [5] Peters V, Sottiaux M, Appelboom J, Kahn A. Posttraumatic stress disorder after dog bites in children. *J Pediatr* (2004) 144: 121–2. doi: 10.1016/j.jpeds.2003.10.024
- [6] Schalamon J, Ainoedhofer H, Singer G, Petnehazy T, Mayr J, Kiss K, et al. Analysis of dog bites in children who are younger than 17 years. *Pediatrics* (2006) 117: e374doi: 10.1542/peds.
- [7] Salman MD, Hutchison J, Ruch - Gallie R, Kogan L, New JC Jr, Kass PH, et al. Behavioral reasons for relinquishment of dogs and cats to 12 shelters. *J Appl Anim Welf Sci* (2000) 3: 93–106. doi: 10.1207/S15327604JAWS0302_2
- [8] Parker G Thomas. Introduction to first aid. Available at: URL: Indian Journal of Public Health 53 (4): 229 - 31
- [9] Km Arti, Rina Kumari, SciddharthaKoonwar, Anugrah Charan: Effectiveness of an instructional module regarding first - aid of pediatric emergencies on knowledge among mothers of 1 - 6 years children, Published: 2020 - 12 - 23, Vol - 8 No - 1 (2021)
- [10] Animal bites - World Health Organization (WHO)
- [11] Sathiadhas MG, Quinters V, Ketheeswaran N, Mohamed Azmy A, Karunya V (2017) Epidemiology, Clinical Profile & Outcome of Stings and Bites in Children Admitted to A Tertiary Care Hospital. *Arch Pediatr* 2017: JPED - 115. DOI: 10.29011/2575 - 825X.27May, 2017.
- [12] Anwar MM, Mostafa ZM, Elareed HR. Maternal Knowledge and Attitude about Home related Injuries in Children under Five Years. *The Egyptian Family Medicine Journal*.2021; 5 (2): 91 - 105.
- [13] Abelairas - Gómez C, Carballo - Fazanes A, Martínez - Isasi S, López - García S, Rico - Díaz J, Rodríguez - Núñez A. Knowledge and attitudes on first aid and basic life support of pre - and elementary school teachers and parents. *Anales de Pediatría (English Edition)*.2020; 92 (5): 268 - 276.
- [14] 14. El Seifi OS, Mortada EM, Abdo NM. Effect of community - based intervention on knowledge, attitude, and self - efficacy toward home injuries among Egyptian rural mothers having preschool children. *PloS one*.2018; 13 (6): e0198964
- [15] Ala'a AS, Sabor S, Aldubai SA. Knowledge and practice of first aid among parents attending primary health care centers in Madinah City, Saudi Arabia, A

- cross sectional study. *Journal of family medicine and primary care*.2018; 7 (2): 380.
- [16] Arabinda Acharya Odisha needs to better manage its snakebite burden with concerted efforts: may 2023.
- [17] Shaswati Sahu, Mohua Biswas A Study on Clinico - Social Profile of Animal Bite Cases Attending an Anti - Rabies Clinic of a Tertiary Care Hospital, Odisha - A Cross Sectional Study *J Commun Dis*.2022; 54 (3): 1 - 5.
- [18] Wilson Suraweera David Warrell Romulus Whitaker Geetha Menon Rashmi Rodrigues Sze Hang Fu Rehana Begum, Prabha Sati, Kapila Piyasena Mehak Bhatia, Patrick Brown Prabhat Jha Trends in snakebite deaths in India from 2000 to 2019 in a nationally representative mortality study Jul 7, 2020.
- [19] David D. Gummin, James B. Mowry, Michael C. Beuhler, Daniel A. Spyker, Daniel E. Brooks, Katherine W. Dibert, Laura J. Rivers, Nathaniel P. T. Pham & Mark L. Ryan (2020) 2019 Annual Report of the American Association of Poison Control Centers' National Poison Data System (NPDS): 37th Annual Report, *Clinical Toxicology*, 58: 12, 1360 - 1541.
- [20] Anas Khan, WaadHAL - Kathiri, Bander Balkhi, Osama Samrkandi, Mohammed S Al - Khalifa, Yousef Asiri The burden of bites and stings management: Experience of an academic hospital in the Kingdom of Saudi Arabia *Saudi Pharm J* 2020 Aug; 28 (8): 1049 - 1054. doi: 10.1016/j. jsps.2020.07.004. Epub 2020 Jul 9.
- [21] Kundavaram Paul Prabhakar Abhilash, Rayshna Rao Animal bites presenting to the emergency department: Spectrum, seasonal variation, and outcome Year: 2021, Volume: 26 | Issue: 2 | Page: 86 - 91.
- [22] HimmatraoSaluba Bawaskar*, PramodiniHimmatrao Bawaskar *journal of the association of physicians of India* January - 2012 Volume: 60
- [23] Dr. Ricky Langley, Dr. Karin Mack Mr. Tadesse Haileyesus, Mr. Scott Proescholdbell, and Dr. Joseph L. AnnestNational Estimates of Noncanine Bite and Sting Injuries Treated in US Hospital Emergency Departments, *Wilderness Environ Med*.2014 Mar; 25 (1): 14–23.
- [24] M K Sudarshan 1, B J Mahendra, D H Narayan 2011 A community survey of dog bites, anti - rabies treatment, rabies and dog population management in Bangalore city *J Commun Dis* 2001 Dec; 33 (4): 245 - 51.
- [25] Samuel Adesina Okueso, Victor O. Adefarasin, Ridwan Ademola Adekola. Insect Stings and Bites: Teachers' Knowledge of Prevention and
- [26] First Aid Treatment regarding Allergies and Anaphylaxis in Primary Schools in Nigeria. *Journal of Social Behavior and Community Health (JSBCH)*.2023; 7 (1): 1000 - 1008.
- [27] N. Dhanasekaran, 1 L. Indhumathi, 2 Anu Kharel Knowledge on Pediatric First Aid Management Among Mothers with Under Five Children in Bharatpur *Journal of College of Medical Sciences - Nepal*, Vol - 17, No 1, Jan - Mar 2021
- [28] Arti K, Kumari R, Koonwar S, Charan A. Effectiveness of an instructional module regarding first - aid of pediatric emergencies on knowledge among mothers of 1 - 6 years children. *Int J ContempPediatr* 2021; 8: 70 - 6.
- [29] Noura Gameel Ahmed Elkholyl, Hala Mostafa Elhady 2 and Amina Abd - Elrazek Mahmoud Knowledge and Attitude of Mothers regarding Rabies and its Preventive Measure 2021 10.21608/JNSBU.2021.186433
- [30] Priyadarsini, A Study to Assess the Effectiveness of Structured Teaching Programme on Knowledge of Mothers Regarding Management of Dog Bite and Prevention of Rabies among Children Undergoing Treatment in the Anti - Rabies Vaccine Outpatient Department at Institute of Child Health and Hospital for Children, Egmore, Chennai - 8, *Journal of Pharmaceutical Sciences and Research; Cuddalore* Vol.11, Iss.6, (Jun 2019): 2198 - 2200.