

Assessment of Knowledge Regarding First Aid Among the Anganwadi Workers in the Rural Areas of South Mangalore Taluk: A Cross-Sectional Study¹

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ABSTRACT

Background: The Anganwadi Workers are responsible for providing informal Pre-school education to children between the age groups of 3-6 years of age, with this group of individuals being more prone to injuries due to their risk taking behaviour and curious nature. The purpose of this study is to therefore assess whether the knowledge pertaining to First-Aid is adequate enough among the Anganwadi Workers in the rural areas of South Mangaluru Taluk.

Method: A cross sectional study was conducted among 112 Anganwadi workers from the rural areas of South Mangaluru Taluk. Complete enumeration of the Anganwadis present in the South rural areas of Mangaluru was employed through interview method by using self-designed, semi structured questionnaire. Data was analyzed using SPSS version 23 and Fisher Exact test was applied to see whether the level of knowledge had any association with the selected socio-demographic variables.

Results: The results of the study show that over 3/4th (76.8%) had moderate knowledge regarding First Aid, followed by only 12.5% having good knowledge and there was a significant association of knowledge on First Aid with educational qualification and availability of First Aid kit at the Centre.

Conclusions: The Moderate knowledge could also have been due to lack of situations requiring them to offer First aid. However, it is of utmost importance that awareness and training session be conducted for the AWWs. Moreover, care should be taken that there is provision of First aid kit at every AWC.

Keywords: *Anganwadi Workers; Anganwadi Centres; First Aid; knowledge; First Aid kit; ICDS; Child safety.*

INTRODUCTION

First-Aid is the Emergency medical care or treatment provided to an injured or ill individual before the arrival of trained medical aid. It consists of performing techniques using equipments that are easily available to the layman ^(1,2). It is usually performed by some non-medical personnel in order to help an injured or sick person and in some scenarios, a first-aid may be all that is required for the person without further expert attention. It is one of the most important steps to be followed in case of a medical emergency or an accident. Therefore, it is of utmost importance that awareness and training for First Aid is given to laymen in the hopes that they will be able to take better decisions in case a likely scenario is to occur around them that would require them to provide any sort of First Aid in the field.

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The Integrated Child Development Services Scheme was initiated in Karnataka on 2nd October 1975 with a pilot project at T. Narasipura in Mysore District with just 100 Anganwadi Centres. Among the other responsibilities of an AWW, they are also responsible for providing Pre-school informal education to the children between the age group of 3-6 years.

A major public health concern that demands our attention is the prevalence of injuries that occur among children below the age of 5 years⁽³⁾. In the year 2019 alone, 7.4 million children, adolescents and youth (0-14 years) died mostly of preventable or treatable causes. Although as per the WHO report, the world has seen dramatic reductions of 60% in under-five mortality from 93 deaths per 1000 live births in 1990 to 38 in 2019, the global burden of child mortality however remains immense⁽⁴⁾.

Children live in a world constructed by and for the adults. From infancy to adulthood, children undergo developmental changes, whether that be in the physical, cognitive, psychological and social abilities that influence their curiosity, perceptions, risk-taking behavior, judgment and actions/reactions to their surroundings, thereby affecting their susceptibility to injuries⁽⁵⁾. Most minor injuries or illness in schools and homes among children can be well managed using First-Aid and may very well not require any further medical intervention⁽²⁾. Since AWWs are responsible for providing Informal Preschool education for children between the age of 3-6 years, they are most likely to come across scenarios that may require emergency First-Aid and presence of mind. It is also obvious that a healthcare worker will not be available within the AWC in case of need, It is therefore of utmost importance that the Anganwadi Workers as first responders have adequate amount of knowledge and are trained in the subject of First Aid in order for them to take appropriate measures in case an emergency is to arise, since, evidence based studies have suggested that proper First Aid if provided can reduce injury and suffering and improve the chances of survival among individuals.

AIMS AND OBJECTIVES

Aim: To assess the knowledge of First-Aid among the Anganwadi Workers in the rural areas of South Mangaluru Taluk, Dakshina Kannada, Karnataka.

Objectives:

- To assess the knowledge of Anganwadi Workers regarding First Aid management of common injuries among children in the Centres.
- To find an association between the selected socio-demographic variables and the level of knowledge among the Anganwadi Workers regarding First Aid management of common injuries occurring among children in the Centres.

MATERIALS AND METHODS

Type of study: A Cross-sectional study

Source of data: Data was collected from the Anganwadi Workers in the rural areas of South Mangaluru Taluk, Dakshina Kannada, Karnataka.

Study site: Anganwadi Centres in the rural areas of South Mangaluru Taluk. The areas covered under the rural areas of South Mangaluru Taluk included:

- Kotekar
- Ullal
- Permannur
- Konaje
- Boliyaru

Sampling technique: Total Enumeration of the AWCs in the rural areas of South Mangaluru Taluk.

Study tools: Self –designed, semi structured, pre-validated questionnaire was used to collect information from the study participants.

The tool for data collection was divided into 2 parts

- Part 1: Socio-demographic variables which includes participant name, age, marital status, Name of the school/Anganwadi center, years of experience etc.
- Part 2: Questionnaire on basic First-Aid scenarios that the Workers might have to face while handling Pre-school level children which included- Choking, nasal bleeding, losing consciousness, wound bleeding, Snake bite, dog bite, electric burn, fracture, allergic reaction and seizures.

Inclusion criteria:

- Anganwadi Workers from rural areas of South Mangaluru Taluk who had at least 2 years of working experience.

Exclusion criteria:

- Anganwadi Workers who were unavailable at the time of data collection.
- Anganwadi Workers working at the Centres that refused to give consent to be a part of the study.

RESULTS AND DISCUSSION

Table I: Distribution of respondents based on their socio-demographic characteristics (n=112)

S.No.	Characteristics	Frequency (n=112)	Percentage (%)
1	Do you know what is First Aid? Yes	110	98.2
2	Have you attended FA training? Yes	70	62.5
3	Does the AWC have a First Aid box? No	69	61.6
4	Source of FA Information Training	70	62.5
5	Referral in case of emergency PHC	70	62.5

Table II: Distribution of characteristics pertaining to First Aid among the AWWs (n=112).

Characteristics	Frequency (n=112)	Percentage (%)
Age 41-50 years	55	49.1
Marital status Married	105	94.6
Years of experience >10 years	93	83.0
Education level Secondary education	62	55.4
Number of children in the AWC 11-20	56	50.0

Table II shows that about 110 out of 112 workers (98.2%) have claimed to know what First Aid is, with only 2 AWWs (1.8%) not having any idea about First Aid. Nearly 2/3rd (62.5%) have attended First Aid training session. However, 61.6% of the Anganwadis having no First Aid kit at their center. Almost 2/3rd of the AWWs (62.5%) claimed to opt for the nearest PHC in case of emergency referral, followed by 35 (31.3%) workers opting for the nearest private hospital or clinic, 4.5% having said that they would contact ASHA workers and about only 2 AWWs claimed to first contact the parents of the child in case of an emergency.

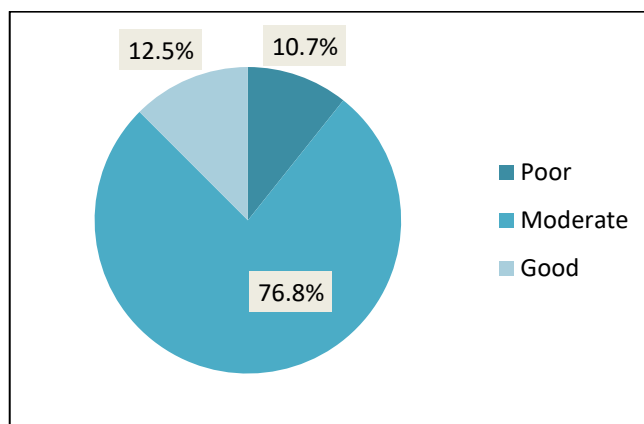


Figure I: Level of knowledge regarding First Aid among the AWWs.

Figure I shows that more than half (76.8%) [CI- 95% (67.67% - 84.01%)] of the AWWs have moderate knowledge regarding First Aid, followed by 12.5% [CI- 95% (7.25% - 20.41%)] of the workers having good knowledge and 10.7% [CI- 95% (5.9% - 18.3%)] of the AWWs having poor knowledge. The mean \pm standard deviation for the level of knowledge was calculated as 14.58 ± 3.69 .

Socio-demographic variables		Score Category			P value
		Poor	Moderate	Good	
Education level	Primary Education	0 0.0%	2 100.0%	0 0.0%	0.029
	Secondary Education	10 16.1%	41 66.1%	11 17.7%	
	PUC	2 4.9%	38 92.7%	1 2.4%	
	Degree	0 0.0%	5 71.4%	2 28.6%	
Does the AWC have a First Aid box?	Yes	1 2.3%	34 79.1%	8 18.6%	0.035
	No	11 15.9%	52 75.4%	6 8.7%	

Table III: Association between selected socio-demographic variables and the level of knowledge regarding First Aid among the AWWs (N=112).

Table III shows that there is significant association between a few selected socio-demographic variables and the level of knowledge regarding First Aid, since, the P value is <0.05 . There appears to be statistically significant association between the level of knowledge with Education level of the AWWs (P value= 0.029) and the availability of a First Aid Kit at the Centre (P value= 0.035). However, there is no association established with years of work experience, age or previous First Aid training sessions attended.

DISCUSSION

Knowledge:

- Over 3/4th workers (76.8%) had moderate knowledge regarding First Aid, followed by only 12.5% having good knowledge even though 110 participants claimed to know what First Aid was. Similarly, studies conducted by Ganfure G et al. and Joseph N et al., where even though teachers were briefly introduced about first aid, they lacked detailed knowledge about it due to lack or absence of compulsory training sessions.
- Moderate knowledge could also have been due to lack of situations requiring them to offer First aid. This was similar to a study conducted by Hazarika D where 70% reported no injuries requiring First aid.

First Aid kit:

Only 38.4% had a kit since the PHC has stopped the provision following COVID-19. Similarly, in a study conducted by Joseph N et al., almost none of the schools had a well-equipped kit due to lack of funds allocated for the materials.

Association:

Present study showed significant association of knowledge with educational qualification and availability of First Aid kit at the Centre. In a study conducted in Mangalore, teachers who had completed below Degree had more knowledge since they've been teaching for a longer period. This was contradictory to Uttarakhand study where more educated meant higher First aid knowledge.

CONCLUSION

In the present study, over 3/4th of the participants were reported to have moderate knowledge, followed by 14 having good knowledge and 12 participants having poor knowledge. Most AWWs who had attended training sessions on First Aid, mentioned that the sessions were organized about 5-10 years prior. The lack of appropriate training sessions from the Medical officers, District/Taluk health officer or extended health sessions by the NGOs and Medical College Hospitals could have been the major cause for the prevalence of moderate knowledge among majority of the AWWs.

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Conflict of Interest: None

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