

Original Research Article

Knowledge, Attitude and Practice Regarding Food Safety among the Anganwadi Workers in Mandya District

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ABSTRACT

Background: Anganwadi workers should have basic knowledge on food safety as she has more chances to interact and to educate the mothers due to her close and continuous contact with the community.

Objective: To determine the knowledge, attitude and practice of AWW on food safety. **Materials and methods:** Cross-sectional study was conducted over three months in rural field practice, all the AWW were included in the present study.

Results: Out of the total 32 anganwadi workers, 75% of them were in the age group of 20-40 years, majority were educated upto 10th standard. Nearly 80% of them had the correct knowledge regarding food safety. More than 90% of them had the right attitude towards food safety and 90% of them were practicing the correct methods in assuring food safety to the beneficiaries.

Conclusion: The study subjects had an overall better awareness regarding food safety.

Keywords: Anganwadi workers, knowledge, food safety.

INTRODUCTION

Nearly every fifth child in the world lives in India, and around 40 per cent of children remain undernourished with their growth and development impeded irrevocably, over the lifetime and leads to morbidity and mortality of children under six years. [1] To overcome this problem, the ICDS programme was initiated which helps to promote holistic development of children under six years through Anganwadi at the community level. Among the various functions of ICDS, supplementary feeding is directly linked with the prevention and control of malnutrition in children.

Care in handling of food and water is also a pre-requisite to ensure better health and prevention from health hazards as the

food borne illness can arise at every stage of food preparation and consumption. The beneficiaries of supplementary nutrition in ICDS are children 6 months to 6 years of age, pregnant and lactating women, who are especially vulnerable to infections. Thus utmost care should be taken at all stages of managing supplementary nutrition, as the food supplied from ICDS involves both local preparation and storage. [2,3,4]

Anganwadi workers should have basic knowledge on food safety as she assumes a pivotal role in anganwadi, and also due to her close and continuous contact with the community; she has more chances to interact and to educate the mothers. Hence this present study was conducted to

assess their knowledge, attitude and practice regarding food safety.

MATERIALS AND METHODS

The present study was a cross-sectional study conducted over a period of three months from January 1st to March 31st 2015 in rural field practice area of a tertiary care hospital in Mandya district after obtaining the ethical clearance from the institution. All the Anganwadi workers working in the centres attached to Bindiganavile PHC, which serves as the rural field practice area of Adichunchanagiri Institute of Medical Sciences were included as the study subjects. AWW who gave consent were included for the study. A pretested and structured questionnaire was administered to the study subjects to obtain the information regarding the socio-demographic profile and awareness on food safety. Data was entered in the excel sheet

and results were expressed in terms of percentage and proportions.

RESULTS

The study was carried out to assess the knowledge regarding food safety among the 32 anganwadi workers serving in a rural field practice area attached to the department of Community Medicine, Adichunchanagiri Institute of Medical Sciences, Mandya district. Out of the total 32 anganwadi workers, 75% of them were in the age group of 20-40 years and the remaining in the age group of 40-60 years. Majority (81.3%) of them had studied upto 10th standard.

The questionnaire consisted of a total of 28 questions regarding food safety of which 10 questions were to assess the knowledge, 6 on attitude and 12 were on practice. The anganwadi workers responses to these questions on their knowledge, attitude and practice are depicted in Table 1, Table 2 and Table 3 respectively.

Table 1: Distribution of study subjects according to their age group in years

Age group (in Years)	Number	Percentage
20-40	24	75
40-60	8	25

Table 2: Distribution of study subjects according to their educational status

Educational status	Number	Percentage
10 th standard	26	81.3
Pre-university	4	12.5
Degree	2	6.3

Table 3: Knowledge among the anganwadi workers regarding food safety

Knowledge among the anganwadi workers regarding food safety	Correct (%)	Incorrect (%)
1. Food poisoning is caused by pathogenic microbes	29(90.1)	3(9.9)
2. Eating raw or half - cooked meat is highly risky for food poisoning	8(25.0)	24(75.0)
3. Eating raw unwashed vegetables is highly risky for food poisoning	29(90.1)	3(9.9)
4. Food handlers with unhygienic practice could be the source for food contamination with food poisoning pathogens	26(81.3)	6(18.7)
5. Eating covered leftover cooked food, kept at room temperature for more than 6 hours, is at high risk to cause food poisoning	29(90.1)	3(9.9)
6. Apparently healthy food handlers might carry foodborne pathogens	30(93.8)	2(6.2)
7. Insects such as cockroaches and flies might transmit foodborne pathogens	30(93.8)	2(6.2)
8. Harmful bacteria multiply quickly at room temperature	27(84.4)	5(15.6)
9. Foodborne pathogens can be seen by the eye	15(46.9)	17(53.1)
10. Cooked food leftover should be re-heated thoroughly	26(81.3)	6(18.7)

Table 3: Attitude of anganwadi workers regarding food safety

Attitude of anganwadi workers regarding food safety	Yes (%)	No (%)
11. Raw foods should be kept separately from cooked foods	32(100.0)	0(0)
12. Wiping vegetables or fruits make them safe to be eaten	23(71.8)	9(28.2)
13. Thorough washing of vegetables and fruits in tap water is necessary to prevent food poisoning	31(96.9)	1(3.1)
14. Long fingernails could contaminate food with foodborne pathogens	32(100.0)	0(0)
15. Food handlers should be medically examined every six months	31(96.9)	1(3.1)
16. Before handling food, rinsing your hand with cold water is enough to get rid of the bacteria on your hands	29(90.1)	3(9.9)

Table 3: Practice among the anganwadi workers regarding food safety

Practice among the anganwadi workers regarding food safety	Yes (%)	No (%)
17. Do you wash your hands with water and soap before preparing food?	32(100.0)	0(0)
18. Do you wash your hand with water and soap after using the bathroom?	32(100.0)	0(0)
19. Do you work when you have diarrhea	25(78.1)	7(21.9)
20. Do you allow your finger nails to grow?	29(90.1)	3(9.9)
21. Do you wash vegetables and fruits before slicing them?	31(96.9)	1(3.1)
22. Do you keep cooked meat or chicken at room temperature for more than 4 hours?	24(75.0)	8(25.0)
23. Do you clean food contact surfaces before and after preparing food?	32(100.0)	0(0)
24. Do you wash fresh vegetables and fruits in tap water before eating?	32(100.0)	0(0)
25. Do you wash your hands with water and soap before eating your meal?	32(100.0)	0(0)
26. Do you wash your hands with water and soap after using the toilet?	32(100.0)	0(0)
27. Do you eat half-cooked eggs (Egg yolk is soft)?	17(53.1)	15(46.9)
28. Do you drink raw (unpasteurized) milk?	30(93.8)	2(6.2)

The overall responses of anganwadi workers regarding food safety is depicted in the figure1 with more than two third of them (87.5%) giving the correct responses.

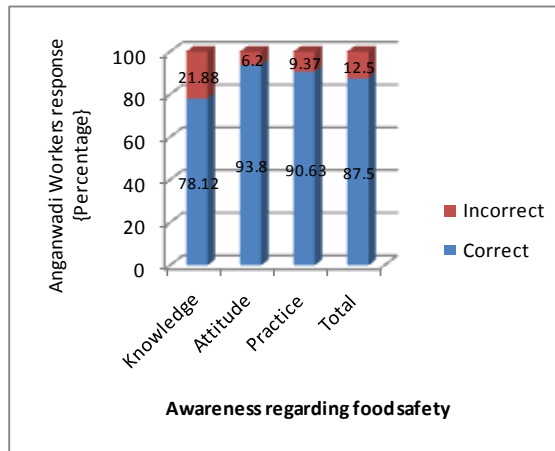


Figure1: Awareness of anganwadi workers regarding food safety

DISCUSSION

The study was done to assess the awareness regarding food safety among the anganwadi workers working in a rural area as they are the prime persons involved in providing the supplementary nutrition to the children and women beneficiaries of ICDS thus reducing the malnutrition related morbidity and mortality. Our study sought to check the awareness regarding food safety among the workers involving questions on knowledge, attitude and practice. Most of the study subjects had studied upto 10th standard before being inducted into ICDS.

Majority (75%) of them were in the age group of 20-40 years.

In the present study, nearly 80% of them were aware of the knowledge regarding food safety. More than 90% of them had the right attitude towards food safety and 90% of them were practicing the correct methods in assuring food safety to the beneficiaries. The study subjects had a better awareness regarding food safety as nearly 90% gave the correct responses as an overall.

Studies done on anganwadi workers solely to assess their awareness regarding food safety are very limited. Hence, studies on food safety among various group of food handlers was considered for comparison.

The knowledge regarding food safety among AWWs was very poor in a study done by Datta SS et al in rural south India as separate area for food storage was observed in only in 4 (36.35%) rural AWCs. [5] This is in contrast to the better awareness found in our study which may be due to the training conducted for AWW on food safety by ICDS and also the study area serves as a rural field practice area of our institution and thus health awareness program will be conducted at regular intervals.

In the study conducted by Sharif et al among the food handlers in a military hospital, food handlers expressed high level of knowledge, positive attitude and good practice in food safety. The mean scores for the knowledge, attitude, practice, and overall

KAP were $84.82\% \pm 11.71\%$, $88.88\% \pm 12.67\%$, $89.43\% \pm 9.10\%$, and $87.88\% \pm 9.61\%$ respectively, which is similar to our study. [6] The better knowledge among the food handlers shown in this study might be due to the reason that the military hospitals usually adhere to strict guidelines in assuring the food safe and the workers will be trained in the same regularly.

In a study done by Sudershan RV et al among the mothers of children (< 5 years), a large proportion of mothers washed their hands before feeding the child (86%). Though women knew that washing hands before handling food was a safety measure, more than 75% washed hands only with water; using soap for hand washing was not very common. Even after defecation, only 50% used soap. Similarly, although most respondents claimed to practise washing vegetables (86.8%) and fruits (75.7%) before cutting or peeling, some women were in the habit of cleaning them by dipping them in a container of water instead of washing them under running water. However, in the present study, all of them had practiced hand washing before cutting vegetables, handling food and after defecation. [7]

A study by Anuradha M et al showed that food handlers had poor knowledge of food borne diseases in terms of etiology (46.67%), mode of transmission (33.33%) and mode of prevention (36.67%). The poor knowledge might be due to the low educational level influencing the knowledge of food borne diseases. [8]

CONCLUSION

The present study showed a better knowledge regarding food safety among the anganwadi workers which has a positive influence on assuring food safety to the beneficiaries of the ICDS. There is a need for updating the anganwadi workers with the right knowledge regarding food safety at

regular intervals thus helping in combating malnutrition among the beneficiaries.

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