

Metabolic Syndrome: Knowledge of Accredited Social Health Activist Workers: A Descriptive Study

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Abstract: ***Purpose:** The metabolic syndrome is a major risk factor for the cardiovascular disorders and type 2 diabetes mellitus in India. The knowledge regarding metabolic syndrome among grass root level workers in India have been understudied. The purpose of the study is to evaluate the knowledge of Accredited Social Health Activist Workers (ASHA) regarding the prevention of metabolic syndrome. **Materials and Methods:** A descriptive survey design is used for this study Data were collected using structured knowledge questionnaire. Participants were 55 ASHA workers from a selected area. Convenient sampling technique was used to select the participants. Data were analysed using descriptive and inferential statistics. **Results:** Study showed that Thirty two participants had average and twenty had poor knowledge regarding metabolic syndrome. The mean knowledge score was 15 with Standard deviation of 1.9. Most of the participants had poor knowledge about obesity, hypertension and hyper lipidemia. Only very few had good knowledge regarding the various aspects of metabolic syndrome. There was no significant association between knowledge score with socio demographic variables. **Conclusion:** The findings of the study throw light on to the need for undertaking more research regarding metabolic syndrome among grass root level health workers in the urban and rural areas of Kerala. ASHAs have the potential to improve their knowledge regarding prevention and control of metabolic syndrome.*

Keywords: Metabolic syndrome, Obesity, hypertension, hyperlipidemia

1. Introduction

The emerging trend in the disease pattern in the world is a rise in non communicable diseases. Especially in developing countries like India along with communicable disease non communicable diseases are emerging as a public health problem. These are also known as life style diseases because most of them can be controlled or prevented by making changes in the lifestyle. The food habits, sedentary lifestyle, development in communication and technology urbanization, job stress etc. contributes to the development of this. Among the life style diseases metabolic syndrome is the upcoming riskfactor for the development of cardiovascular disorders and type 2 diabetes mellitus. It involves a combination of three or more of the following health issues like abdominal obesity, high blood sugar, high triglyceride levels, high blood pressure or low HDL cholesterol. Metabolic syndrome is becoming more and more prevalent due to a rise in obesity rates among children and adults in cities of India. [1] It has been highlighted as a major socioeconomic problem in India. Accurate and timely diagnosis of metabolic syndrome and its prevention is crucial for health and economy of the country^[2]

The best way to prevent metabolic syndrome is through the education of the public. In such a situation Accredited Social Health Activists (ASHA) had a lot to perform. ASHA are community health workers instituted by the government of India's Ministry of Health and Family Welfare as a part of the National Rural Health Mission. They must primarily be female residents of the village that they have been selected to serve, who are likely to remain in that village for the foreseeable future. ASHAs are the village level health workers who are in constant contact with the community. They are the grass root level workers who can create awareness on health especially promotion of health and

prevention of illness. Studies show that ASHAs are the backbone of national rural health mission and have become an integral part of life in the villages of India.[3] Hence it is necessary to improve ASHAs knowledge regarding metabolic syndrome along with other conditions.

2. Materials and Methods

A quantitative study with descriptive survey design was used for this study. The study was conducted among ASHA workers from a selected area. Fifty five ASHA workers were selected by using convenient sampling technique. The informed consent was obtained from participants after explaining the purpose and the study detail. ASHAs participation in the research was voluntary and anonymous. Assessment was done by using structured knowledge questionnaire. Participants voluntarily completed the questionnaire. The demographic information collected were related to age, education, marital status, monthly income, occupation, type of family, history of diabetes and hypertension and previous knowledge on metabolic syndrome. After the assessment structured education was given to ASHAs on metabolic syndrome, its prevention and control measures.

3. Statistical Analysis

Data were entered in the Excel spreadsheet and analyzed by using descriptive and inferential statistics. Mean, median and mode were calculated. χ^2 was used to find out the association between knowledge score and socio demographic variables.

4. Results

In this study nearly half of the ASHAs were between 40 to 45 years. 21 of them belong to the age of 35 to 40 years (Table 1). It was also found that most of the participants were married (85%), very few (13.0%) studied up to graduation and above. Majority (38) of the ASHAs come from (69.4%) nuclear family. More than half of the ASHA workers had some information about metabolic syndrome during their training period. Most (43) of the participants had a monthly income of below Rs: 15535/ month. 34 participants had no previous knowledge regarding metabolic syndrome where as 21 had previous knowledge regarding the topic.

Table 1: Demographic characteristics of the Participants, n=55

Characteristics	Items	Frequency	Percentage
Age	30-35	12	22
	35-40	21	37
	40-45	23	41
Marital Status	Married	47	85
	Unmarried	4	7
	Widow	2	4
	Separated	2	4
Education	Secondary Education	25	45
	Higher Secondary	21	38
	Degree and above	7	13
Type of Family	Nuclear family	38	69
	Joint Family	17	31
Monthly Income	>41430	1	2
	20715-41429	6	11
	15536-20714	5	9
	10357-15535	11	20
	6214-10356	11	20
	2092-6213	11	20
Previous Knowledge	Yes	21	38
	No	34	62

While considering the co morbidities among ASHA workers, the study found that four participants had the history of hypertension and 2 had history of diabetes (Table 2).

Table 2: History of Co morbidities Among ASHA Workers, n=55

SI No	Co morbidities	Present	Absent
1	History of Hypertension	4	51
2	History of Diabetes Mellitus	2	53

The present study shows only three (6.1%) participants had good knowledge about metabolic syndrome.

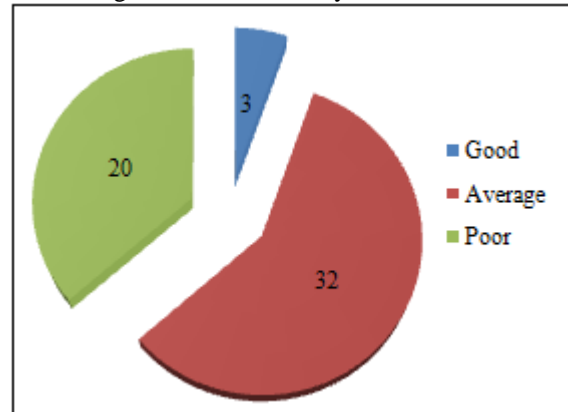
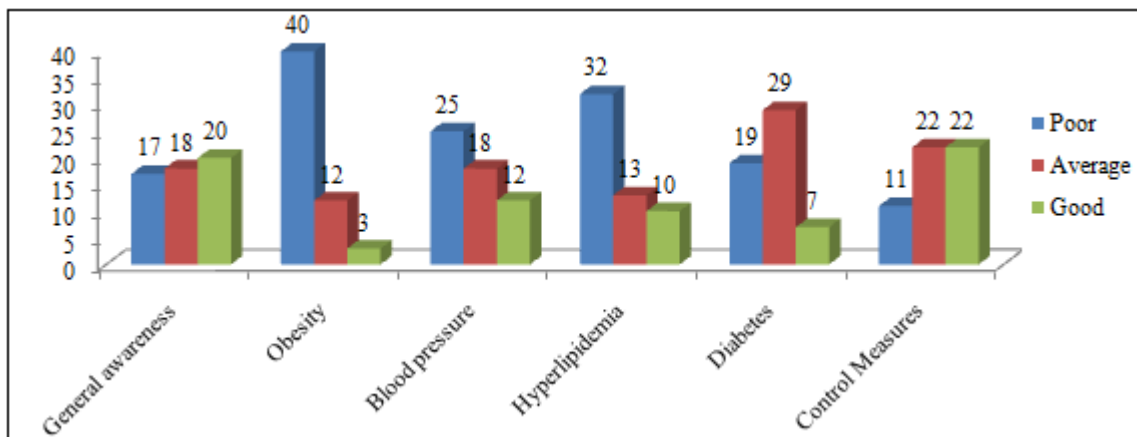


Figure 1: Overall knowledge of ASHA workers regarding metabolic syndrome

Thirty two (58.0%) had average and twenty (35.9%) had poor knowledge regarding the topic. The mean knowledge score was 15 with Standard deviation of 1.9 (Figure 1).

Considering the various aspects of metabolic syndrome most of the participants had poor knowledge about obesity (40), hypertension (25) and hyper lipidemia (32). Very few (11) had good knowledge regarding the various aspects of metabolic syndrome (Table 4).



χ² test was done to find out the association between knowledge level and selected socio demographic variables. No significant association was found between knowledge score and socio demographic variables. After assessment structured education was given to ASHAs regarding different aspects of metabolic syndrome, it's preventive and control measures.

5. Discussion

In this study nearly half of the ASHAs were between 40 to 45 years. 21 of them belong to the age of 35 to 40 years. It was found that most of the participants were married (85%), very few (13.0%) completed graduation and above and most of them (69.4%) belong to nuclear family. A similar study conducted in Karnataka explains that nearly 95.0%

(274/291) of the ASHAs were in the age-group of 20-39 years; three-fourths (215/291) were in the age-group of 26-35 years, mean±SD age being 30.3±5.0 years. About 90.0% (261/293) were currently-married women. Most (73.1%) ASHAs had one or two children, those with no children were 5.2%, and those with >2 children were 21.7%. Nearly 90.2% (264/294) of ASHAs had completed eight years of schooling. [4]

Present study found that more than half of the ASHA workers had some information about metabolic syndrome during their training period. Majority of the participants had a monthly income of below Rs: 15535/ month. Four participants had the history of hypertension and 2 had diabetes respectively. A study conducted in Maharashtra shows that 88.8% are from the income group of 0-500, 9.3% are from the income group of 501-1000, 0.9% are from the income group of 1001-1500 and 0.9% are from the income group of 1500 above.^[5]

A study conducted in Mysore showed that among 216 ASHAs 115(53.2%) were in the age group of 31-40 years, 167(77.3%) studied up to high school and 161(74.5%) were housewives, 135(62.5%) belong to nuclear family, 196(90.7%) were married.^[6]

The present study shows only three (6.1%) participants had good knowledge about metabolic syndrome. Thirty two (58.0%) had average and twenty (35.9%) had poor knowledge regarding the topic. The mean knowledge score was 15 with Standard deviation of 1.9. A similar study conducted in Gujarath showed that means knowledge score was 12.8 with range of 9-15. [7]

This study found that most of the participants had poor knowledge about obesity (40), hypertension (25) and hyperlipidemia (32). Very few (11) had good knowledge regarding the various aspects of metabolic syndrome (Figure 2). There was a significant association between knowledge score with demographic variables. After assessment structured education was given to ASHAs regarding metabolic syndrome, it's preventive and control measures. A study conducted in Haryana to evaluate the ASHA workers awareness and practice of their responsibilities explains that ASHA workers completed training before working as ASHA and were satisfied and happy with their training. [8]

6. Conclusion

ASHAs knowledge on metabolic syndrome is very important to improve the overall health of the public. Hence they should be motivated, knowledgeable and should have the ability to communicate the information in a comprehensible and accepted manner to the community. Appropriate training to the ASHAs is necessary to achieve this goal. It can be incorporated into the routine training.

7. Conflicts of Interest

The authors declared no conflict of interest.

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