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Knowledge on Symptoms and Risk Factors of Heart Attack among Male Adults in Rural Telangana

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ABSTRACT

Background: Cardiovascular diseases (CVD) comprises of a group of diseases of the heart and the vascular system. The major conditions are ischemic heart disease, hypertension, cerebrovascular disease (stroke) and congenital heart disease.
Methods: A cross-sectional study was conducted among 250 men with a pre-tested, semi structured questionnaire in order to assess their knowledge regarding Heart Attack. Data collected was analysed using SPSS software.
Results: 98% of the subjects identified Loss of consciousness as a symptom followed by Dizziness / Light headedness (95.2%), Palpitations (93.6%). Majority (96.4%) knew that Hypertension is one of the risk factors followed by Family history (94.4%), Overweight/ Obesity (89.6%), Diabetes (83.4%), Excess fatty food consumption (81.2%).
Conclusions: majority of the men were aware of most of the symptoms and risk factors of heart attack. There is a need from the health care workers to sensitise people about hazards of physical inactivity and smoking.

Keywords: Breathlessness, Chest Pain, Heart Attack, Hypertension

INTRODUCTION

In present era, the prevalence of Non-Communicable diseases is in increasing trends and is a major public health concern affecting mainly low- and middle-income countries. The most common type of NCD is Cardiovascular diseases (CVD) which comprises of a group of diseases of the heart and the vascular system. The major conditions are ischemic heart disease, hypertension, cerebrovascular disease (stroke) and congenital heart disease.[1] According to World Health Organization, CVDs are the number one cause of death globally and more people die annually from CVDs than from any other cause. An estimated 17.9 million people died from CVDs in 2016, representing 31% of all global deaths. Of these deaths, 85% are due to heart attack and stroke. Over three-fourths of CVD deaths take place in low- and middle-income countries.[2] The Global Burden of Disease study estimate of age-standardized CVD death rate of 272 per 100 000 population in India is higher than the global average of 235 per 100 000 population.[3] As per statistics in India 2016, the estimated mortality rate is high among males when compared to females.[1] In order to control this, Government of India has introduced many programs focusing on preventive and promotive aspects of CVDs. But still the mortality rate is high because of lack of knowledge of the risk factors, symptoms, availability of diagnostic facilities. Due to lack of prior research studies on the topic in study area, this present study was taken up to assess the knowledge of males regarding risk factors and symptoms of heart attack.

METHODS

Study Design: Cross Sectional Study.
Study Period: February 2019 to April 2019
Study Setting: 3 randomly selected villages out of 11 villages attached to rural health

centre of a medical college in Telangana state.

Sample size: 250 by using formula $4pq/l^2$, where p=81.25% based on previous study,[4] l = 5%.

Study Subjects: Men aged 30-60 years residing in the study area for the last one year.

Sampling Method: Simple random sampling method was followed to select villages and based on proportionate sampling method, it was decided to collect data of 98 subjects, 85 subjects 67 subjects from 3 villages. Houses were selected by systematic random sampling method. After visiting the selected house, younger eligible subject among the available was included in the study.

Study Tool: A semi-structured questionnaire was prepared and suitable modifications were made after administering in a pilot study. The questionnaire consists of the demographic information and a series of questions to assess the knowledge about symptoms and risk factors of Heart attack

Method of Data Collection: Data was collected by face to face interview method after obtaining consent. The importance of this study was explained and ensured that confidentiality of the participant's responses.

Statistical Analysis: Data was analysed using Microsoft Excel and SPSS Statistical Package version 22. Data was expressed in proportions.

RESULTS

Majority (44.4%) of the subjects were between 40 – 50 years of age, having school level education (37.2%), skilled worker (24%) and belongs to below poverty line family (55.6%) (Table 1)

98% of the subjects identified Loss of consciousness as a symptom followed by Dizziness / Light headedness (95.2%), Palpitations (93.6%), Arm pain or numbness (89.6%) and Excessive sweating (77.2%) (Table 2)

Majority (96.4%) knew that Hypertension is one of the risk factors followed by Family history (94.4%), Overweight/ Obesity (89.6%), Diabetes (83.4%), Excess fatty food consumption (81.2%) (Table 3)

Most common source of information was Television, Radio (71.6%) followed by Doctor/Health care workers (55.6%), Newspaper, Magazines (24.8%), Social Media (19.6%) (Table 4)

Table:1 Socio demographic profile of study participants (n=250)

Age	Frequency (%)
30 - 40	60 (24)
40 - 50	111 (44.4)
50 - 60	79 (31.6)
Education	Frequency (%)
Illiterate	89 (35.6)
School	93 (37.2)
College	68 (27.2)
Working status	Frequency (%)
Unemployed	20 (8)
Unskilled worker	34 (13.6)
Semi-skilled	59 (23.6)
Skilled worker	60 (24)
Clerk, Shopkeeper, Farmer	42 (16.8)
Semi professional	29 (11.6)
Professional	6 (2.4)
Socio economic status	Frequency (%)
Above poverty line	111 (44.4)
Below poverty line	139 (55.6)

Table 2: Knowledge of study participants on symptoms of heart attack (n=250)

Symptoms of Heart attack	Number (%)
Chest pain / Discomfort in the chest	250 (100)
Arm pain or numbness	224 (89.6)
Shortness of breath	187 (74.8)
Excessive sweating	193 (77.2)
Palpitations	234 (93.6)
Nausea or vomiting	132 (52.8)
Epigastric pain / discomfort	122 (48.8)
Loss of consciousness	245 (98)
Dizziness / Light headedness	238 (95.2)

Table 3: Knowledge of study participants on risk factors of heart attack (n=250)

Risk factors of heart attack	Number (%)
Hypertension	241 (96.4)
Diabetes	209 (83.6)
Smoking	183 (73.2)
Sedentary life style/ Physical inactivity	176 (70.4)
Excess fatty food consumption	203 (81.2)
Overweight/ Obesity	224 (89.6)
Family history	236 (94.4)

Table 4: Source of information (n=250)

Source of information	Frequency (%)
Television, Radio	179 (71.6)
Newspaper, Magazines	62 (24.8)
Relatives or friends	37 (14.8)
Social Media	49 (19.6)
Doctor/Health care workers	139 (55.6)
Academic institutes and books	26 (10.4)

DISCUSSION

In present study majority (44.4%) of the subjects were between 40 – 50 years of age, having school level education (37.2%), skilled worker (24%) and belongs to below poverty line family (55.6%). The current study found that participants were having adequate knowledge regarding symptoms of heart attack. All (100%) the participants identified that Chest pain / Discomfort in the chest as one of the major symptoms of heart attack contrary from a study done by Hertz JT et al., where Chest pain was cited as a symptom of a heart attack by only 3.3% participants.[5] Similar findings seen in Quah JLJ et al study where 85.1% identified prolonged crushing, squeezing, or burning pain in centre of heart as a symptom of heart attack.[6] In present study, about 98% of the subjects identified Loss of consciousness as a symptom followed by Dizziness / Light headedness (95.2%), Palpitations (93.6%), Arm pain or numbness (89.6%) and Excessive sweating (77.2%). According to Joseph N et al study, subjects identified Breathlessness (17.8%), Pain in the upper limbs (12.8%), Fatigue (12.3%), Sweating (11.5%) and Dizziness (5.3%) as symptoms of heart attack.[7] In Khan NS et al study, subjects identified Excessive tiredness (42.1%), Rapid heartbeat (60.3%), Pain or discomfort in the left shoulder (44.5%) as warning signs of heart attack.[8] Subjects in the present study identified Shortness of breath (74.8%), Nausea or vomiting (52.8%), Epigastric pain / discomfort (48.8%) as some of the other symptoms of heart attack. Similar findings were seen in Kim EM et al study, where Shortness of breath (70.3%), Epigastric discomfort / Indigestion (41.9%), Nausea (39.6%) was identified as some of the symptoms of heart attack.[9] In Ahmed AAA et al study, mean of the awareness and action towards symptoms and risk factors of heart attack was 65.52 ± 6.36.[10] In current study, the participants have adequate knowledge on risk factors of heart attack. Majority (96.4%) knew that Hypertension is one of the risk factors followed by Family history (94.4%), Overweight/ Obesity (89.6%), Diabetes (83.4%), Excess fatty food consumption (81.2%), Smoking (73.2%) and sedentary life style/ Physical inactivity (70.4%). According to Halloran LO et al study, 35% felt being overweight was a cause of heart disease, smoking (16%), not exercising (12%) where risk factors of heart attack.[11] In Gupta RK et al study, subjects identified Cigarette/beedi (96.2%), Lack of physical activity (91.3%), Obesity (80.24%), Junk food (76.5%) and Stress (70.6%) as risk factors of heart attack.[12] In Satish P et al study, participants felt that unhealthy eating habits, a sedentary lifestyle, Hypertension, diabetes, substance use, and medication nonadherence as important risk factors.[13] According to Maharajan M et al study, 76% of the subjects knew that smoking causes heart attack.[14] In Umeurri EM et al study, subjects knew that smoking (56.8%), hypercholesterolemia (52.7%), and hypertension (50.1%) are the risk factors of heart disease.[15] In present study, most common source of information was Television, Radio (71.6%) followed by Doctor/Health care workers (55.6%), Newspaper, Magazines (24.8%), Social Media (19.6%), Relatives or friends (14.8%) and Academic institutes and books (10.4%). In Halloran LO et al study, internet and family (28%) being the most common source of information, followed by health professionals (17%), books & magazines (4%).[11] The findings suggest that health care team should take a major role in sensitising community about heart attack.

CONCLUSION

The present study found that majority of the men was aware of most of the symptoms and risk factors of heart attack. There is a need from the health care workers to sensitise people about hazards of physical inactivity and smoking. Television and Radio was found to be most common source of information.

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Declarations

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Conflict of interest: None declared

Ethical approval: The study was approved by the Institutional Ethics Committee

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