ORIGINAL ARTICLE **OPEN ACCESS**

Assessment of Level of Knowledge among Elderly People Regarding the Early Signs of Heart Attack and It's Emergency Management in Budhera Village, Gurugram

Poonam Ahlawat*, Ruchi, Raman Deep, Himanshi Malik, Monika Madaan, Hitesh
Department of Mental Health Nursing, SGT University, Gurugram, Haryana, India

ABSTRACT

Heart disease is one of the leading causes of death in India. Each intervention plays an important role in preventing death in the case of myocardial infarction. Therefore, recognizing the early signs of a heart attack and the symptoms of the person or any bystander and taking immediate action to manage the situation can reduce the risk of death. Likewise, this study aimed to assess the understanding of the elderly about the early signs of a heart attack and emergency management. Data were collected from 200 elderly people residing in Budhera village, Gurugram, using a descriptive study design. Each participant was interviewed about heart attack-related questions. Results: 110 subjects of the study were 60-69 years old. 41 elderly people had a history of hypertension and 61 study subjects had a history of heart attack. 70 elderly people had previous knowledge regarding heart attack. It was found that 18% of elderly people had poor knowledge, 49% had average knowledge, and 33% of had good knowledge. There was a significant association between knowledge score and medical history, history of heart attack, and prior knowledge of heart attack.
Keywords: Heart attack, knowledge, elderly people, emergency management.

INTRODUCTION

Cardiovascular diseases are one of the main national causes of morbidity and mortality in the population. By Raising awareness of public regarding risk factors for heart attack that are believed to impact disease burden, and prevent and treat the problem early.Heart attack, is also known as a Myocardial infraction, Coronary thrombosis, Coronary occlusion,etc [1]. Heart attack is defined as any blockage to arteries which supply blood and oxygen to the heart muscle, and is usually manifested by chest pain, shortness of breath, and pain in the neck and arm, especially the left arm. There are many different risk factors which contribute to heart attacks, such as high blood pressure, diabetes, obesity, high cholesterol, physical inactivity, poor diet, smoking, stress, and atrial fibrillation[2]. In the development of a heart attack various risk factors plays a important role. Thus, knowledge and awareness of these heart attack risk factors play an important role in preventing heart attacks and the complications caused by this disease.[2].Heart attack and stroke are the leading causes of death worldwide [3]. By 2030, nearly 23.6 million people will die each year from cardiovascular disease. The annual number of people dying from cardiovascular disease (CVD) in India is expected to increase from 2.26 million (1990) to4.77 million by 2020 [4]. The increasing prevalence of cardiovascular disease has may be related to population aging. For people over 65, stroke and ischemic heart disease were identified as the 3rd and 4th leading causes of hospitalization.[5]. Therefore, early intervention is important to prevent death in the event of a myocardial infarction. Recognizing the signs and symptoms of a heart attack by a person or any bystander, and taking immediate action by calling emergency services, is essential to ensuring that emergency care is available. Be saved quickly and thus improve the victim's chances of survival [6-8].
Therefore, the rising statistics of mortality due to heart attack rises the necessity to work in this area. Also, various studies have showed that a lack of awareness regarding disease causing risk factors and low education rates in developing countries are associated with increasing disease outcomes[6]. The purpose of current study is to assess the level of knowledge among elderly people regarding the early signs of heart attack and it's emergency management.

MATERIAL AND METHODS

Study design & Participants

This was a cross sectional study conducted in month of June & July 2021among elderly people residing in Budhera, Gurugram. Convenient sampling technique was used to collect data from participants by approaching them at various local locations in the village such as Chopal, shops. Data was collected by face-to-face interviews with 200 study participants. Respondents were presented with eligibility criteria and invited participants. Specific eligibility criteria were: person over 60 years of age and available at the time of data collection.

Research Instruments

Tools for data collection consist of Self structured questionnaire for Demographic variables and structured questionnaire to assess the knowledge regarding coronary failure[7]. Demographic data the participants include: Age, Gender, Family income, Education, Qualification, Religion, Number of family members, Types of family, Diet, Previous history of illness, previous history of heart attack, Any knowledge related to heart attack. Structured questionnaire to assess knowledge consist of 21 questions. To ensure the content validity of the tool, it absolutely was submitted to five experts from the sphere of.

Ethical Consideration

Ethical review of the study was conducted from an ethics committee established at SGT University. The objective of the study was explained to all the participants and after their willingness to be part of study, informed consent was being signed by them.

RESULTS

The data was analyzed by using descriptive statistics and inferential statistics. The obtained data and finding have been organized and presented under the following section:

Table 1. Frequency and Percentage distribution of selected demographic variables.N = 200

S. No.	Demographic variables	Frequency	Percentage
1.	**Age**		
	A] 60-69yrs	110	55%
	B] 70-79yrs	54	27%
	C] 80-89yrs	26	13%
	D]Above90yrs	10	5%
2.	**Gender**		
	A] Male	102	51%
	B] Female	98	49%
3	**Family income**		
	A] below 10000/month	70	35%
	B]10001-20000/month	51	25%
	C]21000-30000/month	56	28%
	D]Above 30000/ month	23	12%
4.	**Education**		
	A] 10th standard	93	46%
	B] 12th standard	42	21%
	C] Graduation	36	18%
	D] P. Graduation	29	15%
5.	**Qualification**		
	A]Home maker	75	36%
	B]Govt. Employee	53	25%
	C]Priv. Employee	82	39%
6.	**Religion**		
	A]Hindu	163	81%
	B]Muslim	14	7%
	C]Christian	12	6%
	D]Other	11	6%
7.	**Number of family member**		
	A]2-4	82	41%

	B]5-6	89	44%
	C]More Than 6	29	15%
8.	**Type of family**		
	A]Joint family	121	60%
	B]Nuclear family	52	26%
	C]Extended family	27	14%
9.	**Diet**		
	A] Vegetarian	161	80%
	B]Non/Vegetarian	39	20%
10.	**Previous History of illness**		
	A]Hypertension	41	20%
	B]Asthma	23	12%
	C]Tuberculosis	38	19%
	D]None of above	98	49%
11.	**Previous History of Heart attack**		
	A]YES	61	70%
	B] NO	139	30%
12.	**Any previous knowledge related to Heart attack**		
	A]YES	70	35%
	B]NO	130	65%

Table 1 depicts that majority of study subjects belongs ot age group 60-69 year of age (55%), only (5%) belongs to above 90 years of age group. (51%) were male and (49%) were female. Most of the subjects were having below 10,000/months as family income (35%). (12%) of participants were having above 30,000/month of income. (46%) of subjects were having educational qualifications of 10th standard (46%) and only (15%) were post graduate. (39%) of subjects were doing private job and ((25%) were govt. employee. Most of the study subjects were from Hindu religion (81%). (44%) of study participants were having 5-6 family members and only (15%) were having more than 6 family members. (80%) of the subjects were vegetarian and only (20%) were non vegetarian. (49%) of the subjects were not having any previous history of illness, (20%) were having history of hypertension and (12%) were having history of asthma. (70%) were having previous history of heart attack. (65%) of subjects don't have any previous knowledge regarding heart attack.

Figure 1: Depicting knowledge score regarding prevention of heart attack in elderly people of selected area of GurugramN = 200
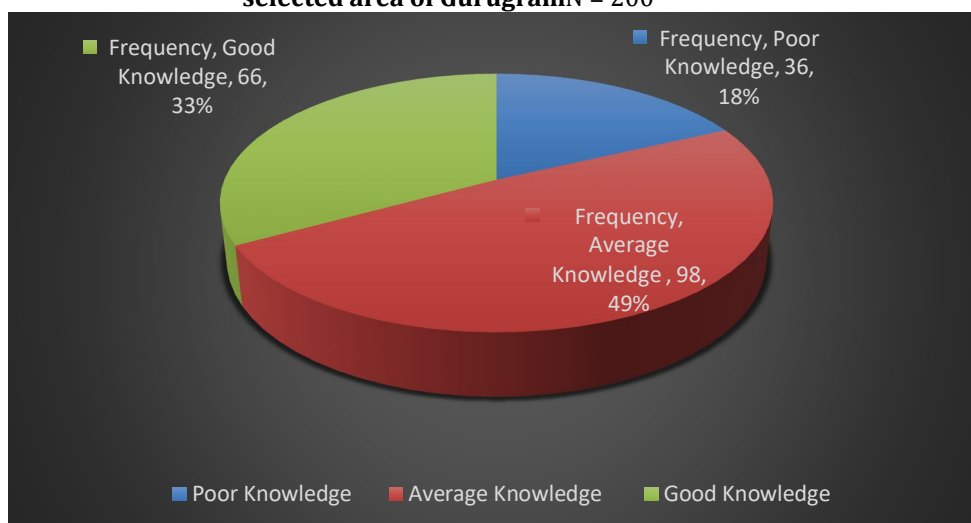
Pie chart showing percentage distribution of level of knowledge score i.e.18% elderly people having poor knowledge, 49% elderly people having average knowledge, 33% elderly people having good knowledge.

Table 2: Association between the selected demographic data with knowledge score of knowledge of heart attack in elderly people of selected area of Gurugram.N = 200

S. No.	Variables	Options	Good Knowledge	Average Knowledge	Poor Knowledge	Chi-Square	Df	Asymp. Sig. (Significance Value)/P-value
1	Age	60-69yrs	5	82	23	111.52	3	.000
		70-79yrs.	4	25	25			
		80-89yrs.	3	20	3			
		Above 90yrs.	2	4	4			
2	Gender	Male	6	66	30	.32	1	.572
		Female	8	65	23			
3	Family income	Below 10,000per month	6	41	23	22.04	3	.000
		10,001-20,000per month	1	30	20			
		21,001-30,000per month	4	50	2			
		Above 30,000 per month	3	10	10			
4	Education	10th standard	5	41	47	70.20	3	.000
		12th standard	2	40	0			
		Graduation	2	30	4			
		Post-Graduation	5	20	4			
5	Qualification	Home Maker	9	51	5	68.880[a]	3	.000
		Govt. Employee	3	20	30			
		Private Employee	2	60	20			
6	Religion	Hindu	13	106	44	328.72	3	.000
		Muslim	0	14	0			
		Christian	0	6	6			
		Other	1	5	5			
7	Number of family members	2 to 4	6	31	45	103.00	3	.000
		5 to 6	4	80	5			
		More than 6	4	20	5			
8	Type of family	Joint family	5	87	45	82.99	2	.000
		Nuclear family	2	30	5			
		Extended family	7	20	5			
9	Diet	Vegetarian	5	116	40	189.43	2	.000
		Non	9	15	15			

		vegetarian						
10	Previous history of illness	Hypertension	3	37	1	63.00	3	.000
		Asthma	2	20	1			
		Tuberculosis	4	4	30			
		None of the above	5	70	23			
11	Previous history of heart attack	Yes	9	23	29	106.09	2	.000
		No	5	108	26			
12	Any previous knowledge related to heart attack	Yes	14	6	50	107.29	2	.000
		No	0	125	5			

Table 2 depicts the knowledge of elderly people regarding early signs of heart attack and its emergency management was found to be associated with most of the demographic variables like age, family income, education, qualification, number and type of family, diet, previous history of illness, previous history of heart attack and previous knowledge regarding heart attack as p-value is< 0.05. Chi-square test was used to find the association between knowledge and socio-demographic variables.

DISCUSSION
Knowledge regarding the various risk factors is an positive approach to change people behavior and attitude regarding heart attack. Prevention of early symptoms and correction of sedentary life style are the best approach [9]. To avoid the complication caused by heart attack and recurrent attack leading to death it is necessary to know the early its early sign which can be modified to prevent its occurrence. In the present study 33% of elderly people were having good knowledge regarding early sign of heart attack and its emergency management, 49% elderly people having average knowledge and 18% elderly people were having poor knowledge. Nearly similar findings were found in study by Shivcharan Singh Gandhar et al in year 2018 which showed that 26% of participants were having good knowledge regarding early sign of myocardial infarction [10].

CONCLUSION
From the current stud, it was found that the elderly has an average knowledge of early signs of a heart attack and emergency management. So, there is an urgent need to provide more information regarding heart attack, to increase knowledge and aware the general population about the modifiable factors to prevent heart attack.

REFERENCES
1. WHO. Cardiovascular diseases. WHO. 2020. Available from: https://www.who.int/news-room/fact-sheets/detail/cardiovascular-diseases-(cvds). Accessed November 7, 2019.
2. Hajar R. Risk factors for coronary artery disease: historical perspectives. *Heart Views*. 2017;18(3):109. doi:10.4103/HEARTVIEWS.HEARTVIEWS_106_17
3. Alam DS, Chowdhury MAH, Siddiquee AT, Ahmed S, Niessen LW. Awareness and control of hypertension in Bangladesh: follow-up of a hypertensive cohort. *BMJ Open*. 2014;4(12):e004983. doi:10.1136/bmjopen-2014-004983
4. Murray CJ, Lopez AD. Alternative projections of mortality and disability by cause 1990–2020: Global Burden of Disease Study. Lancet. 1997;349:1498–504.
5. Yazdanyar A., Newman A.B. The burden of cardiovascular disease in the elderly: Morbidity, mortality, and
6. costs. Clin. Geriatr. Med. 2009;25:563–577. doi: 10.1016/j.cger.2009.07.007.
7. Reddy KS, Yusuf S. Emerging epidemic of cardiovascular disease in developing countries. *Circulation*. 1998;97(6):596–601. doi:10.1161/01.CIR.97.6.596

8. Ahmed AAA, AL-Shami AM, Jamshed S, Nahas ARF. Development of questionnaire on awareness and action towards symptoms and risk factors of heart attack and stroke among a Malaysian population. *BMC Public Health*. 2019;19(1):1300. doi:10.1186/s12889-019-7596-1

9. Association AH. Lifestyle Changes for Heart Attack Prevention; 2015. Available from: https://www.heart.org/en/health-topics /heart-attack/life-after-a-heart-attack/lifestyle-changes-for-heart-attack-prevention. Accessed March 5, 2020.

10. Gandhar S. Shivcharan ,Jhadav Nandini, Ghanekar Pooja et.al A study to assess the knowledge regarding early sign of myocardial infarction among adults in selected urban areas of Pune city. International journal of advance research in Nursing. 2018; vol (1) issue (1) 04-06. DOI:10.33545/nursing.2018.v1.i1A.2

CITATION OF THIS ARTICLE