Knowledge, Attitude and Practice of Ischemic Heart Disease Patients Towards Their Medication

ABSTRACT

OBJECTIVE: Ischemic heart disease is mostly seen among all CVDs and is responsible for more than 80% of CVD deaths. This study has been developed to design and to validate a KAP Questionnaire in order to assess the knowledge, attitude and practice of ischemic heart disease patients towards their medications.

Study Design: Prospective observational study

METHODS: The study was conducted for ~~a duration~~duration of six months among 336 patients. The study subjects taken were above 18 years of age, who was diagnosed with Coronary Artery Disease by a Consultant Cardiologist in Cardiology Department. Practice questionnaires and all the details were explained by the investigator before filling the KAP forms. The data was tabulated and statistically analysed by SPSS software.

Results: 336 patients including both males and females were enrolled in the study. Majority of the patient were having good knowledge about the disease conditions that is 50% of the patients were aware about the ischemic heart disease. 326 (97%) of the 336 research participants were aware of the signs and symptoms of ischemic heart disease. Majority of the patient have an attitude towards the adverse conditions related to the disease i.e. 91.4% were aware of consulting a physician when they came across a side effect. 85.45% of the study subjects think that non-compliance to medication can lead to worsening of their condition. 98.2% of the study subjects are willing to take the treatment recommended by their doctor. Considering the practice, 81.5% the study subjects were ready to follow all the instructions given by the doctor.

Conclusion: Findings from this study provide a better understanding of “knowledge, attitude and practice” in IHD patients towards their medications. Estimating the knowledge, attitude and practices of the community has sufficiently provided crucial baseline information for the implementation of primary and secondary preventive programs.

Comment [h1]: Use the complete words instead of short term

Keywords: Ischemic Heart Disease, Knowledge, Attitude, Practice, Medication, questionnaire

1. INTRODUCTION

One of the most common cause for the mortality in India was found to be Cardiovascular diseases (CVDs). Stroke and Ischemic heart disease are most seen among all CVDs and are responsible for >80% of CVD deaths [1].

Coronary artery disease (CAD)", also named as "coronary heart disease (CHD)" or "ischemic heart disease (IHD)", defined as reduced flow of blood to the heart muscle (myocardium) due to build-up of a thick block known as plaque in coronary arteries. Atherosclerosis of epicardial coronary arteries is the main etiology of IHD. As a result of atherosclerosis in coronary arteries leads to increase of myocardial oxygen demand and decreased supply of myocardial oxygen [2]. Coronary artery disease typically causes shortness of breath, angina pectoris, myocardial infarction, or heart attack [3]. Common symptoms of IHD is Pain in shoulder, arm, back, neck or jaw, which may be radiated from chest pain. ~~Even~~ even if patients have same type of coronary heart disease, symptoms may vary from person to person. [4]. Coronary artery disease is associated with number of risk factors. Out of which few are controllable and few are not controllable. Controllable risk factors are high blood cholesterol levels, high BP, smoking, diabetes, overweight or obesity, stress, unhealthy diet and lack of physical activity. Uncontrollable risk factors are family history, race, Distribution of patients according to their diagnostic tests, and age (Advanced age increases risk) [5]. If risk factors are in control, 90% of cardiovascular diseases maybe preventable but it does not completely cure [6]. Treatment for coronary artery disease typically includes modifications to lifestyles and, if necessary, drugs and certain medical procedures. For the treatment of coronary artery disease, different medications can be used, including, cholesterol lowering drugs, antiplatelet drugs, anticoagulant drugs, anti-anginal drugs, beta blockers, angiotensin converting enzyme (ACE) inhibitors, angiotensin II receptor blockers. Medical procedures include angioplasty and stent placement, coronary artery bypass surgery [7]. This study adequately provides key baseline information to design future preventive educational interventions.

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2. MATERIAL AND METHODS

A prospective observational hospital-based study was performed at a teaching hospital in the Department of Cardiology. The Institutional Ethics Committee accepted this report. The sample size was agreed upon by considering the availability of patients during the short study period utility in the hospital. ~~Eligibility criteria includes~~Eligibility criteria include all patients above 18 years of age who were diagnosed with ischemic heart disease by a consultant cardiologist in cardiology department and in medication for 3 months. For this analysis, the sample was restricted to critically ill patients, patients who were diagnosed with other cardiac disease, patients who were not willing to participate and pregnant women.

A self-administered questionnaire that consisted of 14 questions which were divided into 3 categories mainly Knowledge, attitude and practice was developed to conduct the research. The Knowledge category consisted of 4 questions whereas attitude and practice category consisted of 5 questions each. Two or three options were given for each question. Developed questionnaire were validated by physicians (n=3) and academic pharmacists (n=2). Spelling and logical errors in the questionnaire were corrected by obtaining the feedback after the validation process. The finalized questionnaire was translated into local languages for the easy understanding of study subjects. After the translation process, the back translation of the questionnaire was carried out for confirming the appropriateness of the questionnaire. Participants were enrolled and interviewed by using KAP questionnaire and the scores were documented.

3. RESULTS AND DISCUSSION

Between September 2019- March 2020, 336 eligible individuals were enrolled in this study. The Majority of participants fall under the age group between 60-70 years (36.3%), 233 were male (69.3%) and 103 are female (30.7%). From the study subjects, 165(49.1%) people were consuming alcohol, 169 (50.3%) were smokers and 131 (39.0%) were found to be using Substance. According to survey, Majority of study subjects (N=184, 54.8%) were uneducated and belong to rural area (n=253, 75.3%).

3.1. Knowledge assessment of study population

As per the first criteria of the knowledge questionnaire, 50% of the patients knows what Ischemic heart disease is. 326 study subjects (97%) among 336 were aware of the signs and symptoms of ischemic heart disease. In the study sample, 66.1% have knowledge about the diet plan, which should be followed during the disease condition. The detailed knowledge assessments are given in Table 1.

Table 1. Knowledge assessment of study population.

	Number(336)	Percentage (%)
According to you what is ischemic ~~heartdisease~~heart disease(IHD)?		
Blockage of blood vessels due to accumulation of fat	167	49.7
Pain in the heart	164	~~45.5~~48.8

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Excess gastric secretion in the stomach	5	1.5
What are the signs and symptoms of IHD?		
Blood in urine, weight loss, severe cough	7	2.1
Shortness of breath, sweating, Chest pain	326	97.0
Dry mouth, Stomach ache, frequent urination	3	0.9
Do you know about your dietary plan?		
Yes	222	66.1
No	114	33.9
Do you think IHD is completely curable with the medication prescribed by the doctor?		
Yes	254	75.6
No	52	~~24.4~~15.47

Practice assessment of study population

While considering the practice of study subjects conducted during the study, 81.5% are following the instructions regarding the intake of medication given by their doctor. 90.8% of the study subjects are aware that they are supposed to consult their physician when their medication get over according to the prescription. 77.4% of the study subjects are aware that they have to attend the check up regularly as directed by their physician. Practice assessment of study population was discussed in detail in Table2.

Table 2. Practice assessment of stud y population.

	Number (336)	Percentage (%)
What do you do if you come across any side effects?		
Stop using medication	23	6.8
Consult your physician	307	91.4
Decrease the dose	6	l .8
Do you think that non-compliance to medication can lead to worsening of your		

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Yes	286	85.1
No	50	14.9
Do you prefer traditional/herbal medicine not prescribed by a licensed physician?		
Yes	106	31.5
No	230	68.5
Are you willing to take treatments recommended by the doctor?		
Yes	330	98.2
No	6	I .8
Did you start treatment for IHD only after the consultation with a physician?		
Yes	326	97.0
No	10	3.0

Practice assessment of study population

While considering the practice of study subjects conducted during the study, 81.5% are following the instructions regarding the intake of medication given by their doctor. 90.8% of the study subjects are aware that they are supposed to consult their physician when their medication gets over according to the prescription. 77.4% of the study subjects are aware that they have to attend the check up regularly as directed by their physician. Practice assessment of study population was discussed in detail in Table 3.

Table 3. Practice assessment of stud y population.

	Number(336)	Percentage (*/c)
Do you attend the check-up regularly ~~asdirected~~as directed by the doctor?		
Yes	260	77.4
No	76	22.6
Have you ever stopped taking ~~yourmedication~~your medication or started consuming again without proper consultation with the doctor?		
Yes	149	44.3
No	187	55.7
Do you follow all the instructions ~~regardingthe~~regarding the intake of medication given by your doctor?		
Yes	274	81.5
No	62	18.5

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What will you do if you miss a dose?		
Double the dose	1 2	3.6
Start with the next dose	205	61.0
Take the dose as soon as you remember if it is	1 19	35.4
not the time for the next dose.		
What will you do if your medications get ~~overas~~over as per your prescription?		
Stop the treatment	24	7.1
Consult the physician	304	90.5
Refill the prescription without consultation	8	2.4

4. DISCUSSION

In the present study, 69.3% of males and 30.7% of females participated. Among which majority of sample populations were male and majority of participants fall under the age group between 60-70years (36.3%) followed by age group 50-60 (25.9%). In the study conducted by Mirza et al., shows a similar result in which majority of sample populations were male, and more than half of the population of the sample (55%) was 41-70 years of age.

In the present study, 97% of the patients were aware of the signs and symptoms of ischemic heart disease. In the study conducted by Mirza et al., shows an inconsistent result in which 71% of the patients were not adequately to establish an appropriate signs and symptoms of ischemic heart disease [8].

In the present study, 50% of the patients know what Ischemic heart disease is. 97% of the patients were aware of the various symptoms and signs of ischemic heart disease and 66.1% have knowledge about the diet plan, which should be followed during the disease condition. Similar findings were obtained from a study conducted by Muhammed et al., in which half of the subjects were able to correctly answer general CVD questions [9].

In the present study, more than half of ischemic patients were found to be smokers. Study concluded that tobacco use is one of the major risk factor in CVDs. Similar result was found from the study conducted by Yahya et al., in where 56.8% were found to be using tobacco products and 41.3% noted as having CVD related medical conditions [10].

In the present study, there is significant (p=0.04) association between Knowledge regarding IHD in the age group and educational qualification. Respondents with age group of 30 – 50 and graduates were correctly identified what is IHD. In the study conducted by Hertz et al., shows a similar result in which higher IHD knowledge was found to be connected with younger age ($P = 0.045$) and higher education ($P < 0.001$) but not higher risk of cardiovascular disease ($P = 0.123$) [11].

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In the present study, there is significant (p=0.04) association found regarding IHD dietary plan and educational qualification. The graduate respondents were about the dietary plan of IHD. This result was consistent with the study conducted by Perera et al., that education status had a significant relationship with knowledge and attitude about dietary management (knowledge - $r = 0.48$, $p < 0.001$, Attitude – $r = 0.44$, $p < 0.001$) [12].

In the present study, majority of participants fall under the age group between 60-70years (36.3%) followed by age group 50-60 (25.9%). This outcome contradicted the outcome of the study conducted by Nadeem et al., which included 109 patients with a mean age of 41 years [13]

5. Conclusion

The study developed a structured knowledge attitude and practice questionnaire for assessing knowledge attitude and practice of ischemic heart disease patients towards their medication. In present study a total number of 336 patients were included out of which 233 are male and 103 are female. As per Kap questionnaire 50% of the patients had sufficient knowledge about ischemic heart disease and their signs and symptoms. While assessing the attitude of the study subjects majority of the patients were aware about the adverse conditions related to the disease. Considering the practice, 81.5% the study subjects were ready to follow all the instructions given by the doctor. It was found that respondents who were graduates had more knowledge regarding the dietary plan and the disease conditions. Respondents who were HS and HSS qualified had followed all the instructions given by the doctor.

This study concluded that estimation of a population's knowledge, attitude and practices has been adequately providing key baseline information to design primary and secondary prevention programmes.

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Comment [h2]: Follow the same pattern as recommended by Journal.

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