Knowledge, Attitude and Practice of Cardiac Patients Regarding Reversible Risk Factors

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Authors’ contributions

This work was carried out in collaboration among all authors. Authors FQR, TA and AQ designed the study, performed the statistical analysis, wrote the protocol and wrote the first draft of the manuscript. Authors SAM, MIS and AA managed the analyses of the study. Authors AU, KU and WAS managed the literature searches. All authors read and approved the final manuscript.

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ABSTRACT

The major aim of this study was to assess the knowledge, attitude and practice of numerous risk factors of cardio vascular disease among the local population of Sukkur district. Embracing of western culture and quick conversion of rural areas into urbanization leads to enhance the cardio
vascular burden on the population of modern world. Developing countries has not enough medical facilities to overcome the burden of Cardio vascular Disease (CVD) and it is co-related with education and awareness about the cardiac disease. Descriptive Crossover-sectional study was carried out at National Institute of Cardio-Vascular Disease (NICVD) Sukkur for the period of 06 months from July 2020 to December 2020. Total 186 patients were included in the study and the selection criteria for study subjects was depends on the different factors such as patients, who had admitted in the hospital for more than 03 days with positive Troponin T and disturbed ECG reports. A well designed questionnaire was used for the collection of demographic and clinical data from the patients regarding research. From the obtained data 123 were male patients and area of residency of mostly patients was rural areas. 39 patients complain about chest pain, 74 about shoulder pain, 44 had severe headache and 29 were presented with cardiac arrest. 109 patients were diagnosed with hypertension, 34 had Diabetes Mellitus, 26 had gastric issues. Trop T test was positive among 91 patients, 109 had disturbed ECG. 64 patients were aware about various risk factors of CVD. In our research it was concluded that people of interior Sindh were unaware of modifiable risk factor for cardiovascular disease when presented with heart problem, most of the population even couldn’t identify the obesity, physical exercise, heavy diets and smoking as major reversible risk factors for CVD. Mass counseling and seminar should be conducted from time to time in order to overcome the raising issues of cardio vascular disease and its risk factors.

Keywords: NICVD; electro-cardio gram; cardio vascular disease; Troponin T.

1. INTRODUCTION

Embracing of western culture and quick conversion of rural areas into urbanization leads to enhance the cardio vascular burden on the population of modern world. [1,2] Developing countries has not enough medical facilities to overcome the burden of Cardio vascular disease (CVD) and it is co-related with education and awareness about the cardiac disease. Awareness is more important as patients should know that how to deal in the worsening condition of disease. [3,4] Literacy and awareness of the disease can be replicated with enhance mortality and rise in the admission of patients of cardio vascular disease in young age that ultimately enhance the hindrances to live the normal and healthy life. [5,6] Cardio vascular disease is considered as major risk factor for the people of south Asian countries and internationally, it accelerate the cardio vascular disease epidemic especially in Pakistan and India. [7,8,9] Among the developing countries, the best way to fight against the cardio vascular disease is prevention, as there is totally shortage of medical resources. Prevention is considered as basic tool to fight against CVD. [10] Information about variable risk factors including Smoking, Obesity, lack of exercise, heavy diets are commonly recognized as primary factors for physiological alteration and these can be managed to control the cardiac diseases [11,12,13]. Knowledge is not enough to control the epidemic as implementation is the key component to overcome these problems [14,15]. Level of knowledge regarding modifiable risk factors of Cardio Vascular Diseases among the local population can help to detect out the public health programs [16,17]. From the recent research, it was concluded that health education programs are beneficial to improve the health and behavior of patients with cardiac diseases [18,19]. The knowledge regarding various variables related to cardio vascular disease are quite change in different populations. According to research conducted in United States, capacity of knowledge was quite different according to their ethnicity [20,21]. People of developing countries were unaware to reduce the cholesterol level with exercise and dietary control. Qualification is considered as major tool to improve the healthy life style. The knowledge and awareness regarding CVD matter for survival and reduction of mortality rates [22,23]. The joint families mostly faced the problems for understanding the risk factors as compared to the nuclear family or isolated families regarding health benefits [24,25]. A research conducted on the risk factors for CVD has revealed that smoking cigarette, fats and fatty acids intake, enhances fasting glycemic level, high level of cholesterol, family history of cardio vascular disease, low family income and less qualification were major factors for inducing cardiac diseases in Pakistan [26,27,28]. Similar type of study was conducted on the poor knowledge of local population regarding modifiable risk factors of cardio vascular disease in Karachi. The main objective of the current research was to examine...
the knowledge, attitude and practice regarding variable risk factors of cardiovascular disorders among the local population of Sukkur, Sindh, Pakistan.

July 2020 to December 2020. NICVD is type of tertiary care hospital that covers the southern Sindh and fulfills the medical requirement of cardiac patients and gave them proper management. Total 186 patients were included in the study and the selection criteria for study subjects was depends on the different factors such as patients, who had admitted in the hospital for more than 03 days with positive Troponin T and disturbed ECG reports. A well designed questionnaire was used for the

2. METHODOLOGY

Descriptive Crosssectional study was carried out at National Institute of Cardio Vascular Disease (NICVD) Sukkur for the period of 06 months from collection of demographic and clinical data from the patients regarding research and SPSS 21.00 version was used for statistical analysis of research data.

3. RESULTS

After collection of proper data from the study subjects, data was assembled and the results were prepared. Total 186 patients had

| Gender                  | Number | Percentage |
|-------------------------|--------|------------|
| Male                    | 123    | 66.12%     |
| Female                  | 63     | 33.87%     |

| Area of residency       |        |            |
|-------------------------|--------|------------|
| Urban                   | 49     | 26.34%     |
| Rural                   | 137    | 73.65%     |

| Symptoms                |        |            |
|-------------------------|--------|------------|
| Chest Pain              | 39     | 20.96%     |
| Shoulder Pain           | 74     | 39.78%     |
| Severe Headache         | 44     | 23.65%     |
| Cardiac Arrest          | 29     | 15.59%     |

| Diagnosis               |        |            |
|-------------------------|--------|------------|
| Hypertension            | 109    | 58.60%     |
| Diabetes Mellitus       | 34     | 18.27%     |
| Gastric Problem         | 26     | 13.9%      |
| Other                   | 17     | 9.13%      |

| Troponin T test         |        |            |
|-------------------------|--------|------------|
| Positive                | 91     | 48.92%     |
| Negative                | 95     | 51.07%     |

| Disturbed electro cardio gram |        |            |
|-------------------------------|--------|------------|
| Yes                           | 109    | 58.60%     |
| No                            | 77     | 41.39%     |

| Knowledge about variable risk factors of CVD |        |            |
|---------------------------------------------|--------|------------|
| Yes                                         | 64     | 34.40%     |
| No                                          | 122    | 65.59%     |
| Don’t Know                                  |        |            |

| Knowledge about obesity as risk factor |        |            |
|---------------------------------------|--------|------------|
| Yes                                   | 49     | 26.34%     |
| No                                    | 137    | 73.65%     |

| Knowledge about smoking as risk factor |        |            |
|---------------------------------------|--------|------------|
| Yes                                   | 32     | 17.20%     |
| No                                    | 154    | 82.79%     |

| Knowledge about alcohol consumption as risk factor |        |            |
|---------------------------------------------------|--------|------------|
| Yes                                               | 29     | 15.59%     |
| No                                                | 157    | 84.40%     |

| Knowledge about exercise as risk factor |        |            |
|----------------------------------------|--------|------------|
| Yes                                    | 99     | 53.22%     |

Table 1. Respondents and diagnosis ratio
| Gender | Number | Percentage |
|--------|--------|------------|
| No     | 87     | 46.77%     |
| Yes    | 94     | 50.53%     |
| No     | 92     | 49.46%     |

Participated in the study from them 63 were females whereas rests of the participants were males as described in Table in 1.

4. DISCUSSION

Determination of various reversible risk factors of cardio vascular disease among the local population of interior Sindh province was conducted. Information regarding numerous risk factors such as smoking, obesity, alcohol consumption, less of exercise and highly lipid diets was evaluated among the patients who were admitted into the National Institute of Cardio Vascular Disease with the complain of chest pain or any heart problem [29,30]. People with joint family had good knowledge about the risk factors of heart diseases [31]. Current study determine that the 90% of study subjects identity at least one modifiable risk factor for the occurrence of cardiac issues and only 18% had enough knowledge about all highly risk factors. Smoking and highly lipid diet was mostly observed among all participants whereas they were unaware of that the lack of physical workout and obesity can be route cause for cardiac disease [32,33]. Results were resembles with Jafery et al., knowledge of cardiovascular disease was evaluated among the local population of Pakistan [34]. According to survey, it was observed that people with joint family system were more prone to cardiac disease as compare to isolated family because they follow old traditional practices and facing nutritional issue due to limited economy to support. Shah Q et al., elaborated that people with joint family system were illiterate, poor and inclined towards depression and anxiety due to low socio-economic value [35,36]. It elaborates the factor of knowledge that is considered as risk factor for heart problem. Ford ES & Assiri AS et al., concluded in their research that non smoker had more information of modifiable risk factors of cardiac disease than the smokers. Farooqi A et al., stated that knowledge also depends upon the ethnicity as people of interior Sindh had enough knowledge than any other part about the modifiable risk factors but in current study ethnicity matters as people of interior Sindh haven’t enough information about the obesity, smoking and physical workout as the reversible risk factors for cardio vascular disease [37]. Mostly cardiologist suggest for the exercise to the patients who had faced any cardiac arrest or heart attack that is also elaborated in the research carried by Fletcher G Fet et al.,as majority of population didn’t have proper idea about the relationship of physical workout with cardiac disease and practice of exercise was observed among very few people in the current study.

5. CONCLUSION

In our research it was concluded that people of interior Sindh were unaware of modifiable risk factor for cardiovascular disease when presented with heart problem, most of the population even couldn’t identify the obesity, physical exercise, heavy diets and smoking as major reversible risk factors for CVD. Consequences obtained from the results concluded that population with low literacy rate, joint family members, and chain smokers needs to provide the proper counseling and training about the modifiable and non-modifiable risk factors of cardio vascular disease. Mass counseling and seminar should be conducted from time to time in order to overcome the raising issues of cardio vascular disease and its risk factors.

CONSENT

As per international standard or university standard, patients’ written consent has been collected and preserved by the author(s).

ETHICAL APPROVAL

As per international standard or university standard written ethical approval has been collected and preserved by the author(s).

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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