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Public knowledge of cardiovascular diseases and its risk factors in Srinagar

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Abstract
It is estimated that 23.3 million people will die by 2030, because of cardiovascular disease. High blood pressure, high cholesterol, high blood glucose level, smoking, obesity and physical inactivity are conventional risk factor. Although cardiovascular disease occurs in the middle age or later, risk factor (smoking, dietary factors etc.) are determined to great extent by behaviours learnt in childhood and continued to adulthood. The present study is aimed to assess Public knowledge of cardiovascular diseases and its risk factors in Srinagar. The study reveals that the majority of the population do not have sound knowledge regarding the disease. They are not well aware about healthy lifestyle practices, have a strong family history of CHD. Knowledge of respondents regarding various nutrition related terms (i.e. phytochemicals, antioxidants, Tran's fatty acids, saturated fats, bad cholesterol, good cholesterol) is considerably low. Good number of respondents have knowledge about symptoms of heart CVD, however a good number of the respondents have good level of awareness about the dietary habits that can reduce the risk of CVDS.

Keywords: knowledge, diet, public, awareness, heart-disease, CVD

Introduction

Cardiovascular diseases (CVDs) are group of disorders that involve the heart or blood vessels or both. They include coronary heart disease (CHD), cerebrovascular disease, peripheral arterial disease, rheumatic heart disease, congenital heart disease, and deep vein thrombosis and pulmonary embolism. CVDs are the leading cause of deaths in both developed and developing countries. In 2008, 30% (17.5 million people) of global all-cause mortalities were from CVDs. Of these, 6.2 and 7.3 million were due to stroke and CHD, respectively. It is expected to increase to 2.3 million by 2030 (Awad and Al-Nafisi) [1]

According to world health report 2002, cardiovascular diseases (CVD) will be the largest cause of death and disability in India by 2020. Much of this enormous burden is already evident in urban as well as semi-urban and slum dwellings across India, where increasing lifespan and rapid acquisition of adverse lifestyles related to demographic transition are thought to have contributed to rising prevalence of chronic disease determinants like smoking, physical inactivity, improper diet, stress etc. and their ensuing outcomes such as obesity, hypertension, and type 2 diabetes. WHO noted that CVD has no geographic, socioeconomic or sex boundaries. It is estimated that far from being confined to the most developed countries, cardiovascular disease is the leading cause of death in developing countries as well. The majority of cardiovascular disease (CVD) is caused by risk factors that can be controlled, treated or modified, such as high blood pressure, cholesterol, overweight/obesity, tobacco use, lack of physical activity and diabetes. However, there are also some major CVD risk factors that cannot be controlled. In terms of attributable deaths, the leading CVD risk factor is raised blood pressure (to which 13 per cent of global deaths is attributed), followed by tobacco use (9 per cent), raised blood glucose (6 per cent), physical inactivity (6 per cent) and overweight and obesity (5 per cent). (World Heart Federation, 2009). A risk factor" is generally defined as a characteristic of an individual that is associated with the subsequent development of a disease. The atherosclerosis underlying heart attack and stroke is associated with multitudinous factors. Many of these are markers of a developed or "Western" lifestyle, but only some are "causal" in the sense that the likelihood of causality is sufficient to justify a clinical or public health intervention. (Ian. M Graham 2008).

The prevalence of CVD is increasing rapidly and has become a leading cause of mortality and morbidity in the general population of both developing and developed countries. Prevalence of CVD in the Indian subcontinent is presently one of the highest and is further on an increase. In state of Jammu and Kashmir the population like any other developing community is undergoing life style changes., but the unusual stress and strain for the last 15 years of disturbed situation in the state apparently has contributed to increase in the prevalence of CVD in both rural and urban areas of the valley. CVD is estimated to cause 46% of all mortalities in Kashmir and the overall prevalence of CVD in Kashmir is about 8.37%. (Kamili.M. *et al.*, 2007). In order to design effective primary and secondary prevention programs, an assessment of populations prior CVD knowledge is of prime importance. There is scarcity of data on the existing CVD knowledge among general population, hence, this study is an attempt to assess the level of knowledge towards CVD types, warning symptoms of heart attack or stroke, and CVD risk factors. It also explored public views on the community role in CVD prevention and management. According to Chun Yu Li (2011) The identification of the major independent risk factors for CVD such as age, gender, smoking, diabetes, cholesterol, and hypertension is very important in preventing CVD; using

aggregated score of these risk factors helps predict of CVD death in many ethnic minorities as well as in white people (Hurley *et al.*, 2010). Previous studies show that ethnic groups have differences in CVD risk (Chiu., *et al.* 2010) and underserved patients has a low perception of risk and cardiovascular knowledge (Homko *et al.*, 2008). Investigating the prevalence of CVD risk factors and factors related to aggregated score predicting CVD occurrence, especially knowledge relevant to CVD risk factors will help develop strategies for underserved population.

Knowledge of modifiable risk factors of heart disease among patients in Karachi, Pakistan, highlights a striking lack of knowledge of modifiable risk factors among individuals with a first heart attack. Only 42% of our subjects had a good level of knowledge about heart disease, and a mere of 20% were able to correctly identify all four risk factors of heart diseases in the Pakistani population. The results of this study have also helped to identify segments of the population who need to be targeted for educational interventions. These include tobacco users, people who have not completed high school education, people with a sedentary lifestyle, and those living in an extended family system and those of Urdu-speaking ethnic origin. The findings of our study suggest that aggressive and targeted education about the relationship of obesity and exercise with CVD in particular is needed**. (**Muhammad. S *et al.*, 2006) [12]

Abdelmoneim Awad* and Hala Al-Nafisi (2014) [1] in his study, Public knowledge of cardiovascular disease and its risk factors in Kuwait, reveals that knowledge about types of CVD, heart attack or stroke symptoms was low. Almost 60% of respondents did not know any type of CVD, and coronary heart disease was the commonest identified type (29.0%). Two-fifths of participants were not aware of any heart attack symptoms, and the most commonly known were chest pain (50.4%) and shortness of breath (48.0%). Approximately half of respondents did not recognize any stroke symptoms, and the most commonly recognized were 'confusion or trouble speaking' (36.4%) and 'numbness or weakness' (34.7%). Respondents' knowledge regarding CVD risk factors was moderate. The commonest factors identified by over four-fifths of participants were smoking, obesity, unhealthy diet and physical inactivity. In the multivariate logistic regression analysis, independent predictors of better level of CVD knowledge were females, age 50–59 years, high level of education, regular eating of healthy diet, and had a family history of CVD. Kamili MI, Dar I, Ali G, Wazir H in their study, prevalence of coronary heart diseases in Kashmir, states that the CHD prevalence is increasing day by day in Kashmir. Epidemiological study was conducted In the state of Jammu and Kashmir the population like any other developing community, is undergoing lifestyle changes but the unusual stress and strain for the last 15 years of the disturbed situation in the state apparently has contributed to assess the prevalence of CHD in both rural and urban areas of the valley. This study was carried out in the rural and urban areas of the twin districts of Anantnag and Srinagar by random sampling. The total population of the study area comprised of 44,305 persons out of which the target population was 13,893. The study was carried out on 3128 (23%) subjects (2284 males and 844 females) aged 40 years and above. In rural areas the study was conducted in a cluster of 3 villages in each district on 1552 persons (1088 males and 464 females) and in urban areas it was carried out in 3 mohallas (closed locality) in each district on 1576 persons (1196 males and 380 females).

Knowledge of cardiovascular disease risk factors among the Canadian population, revealed that more people knew about the behaviour-related risk factors for cardiovascular disease than about the physiologic risk factors: 60% recalled fat in food, 52% smoking and 41% lack of exercise, but only 32% identified weight, 27% cholesterol and 22% high blood pressure. Education was the socioeconomic status indicator most strongly and consistently associated with the ability to recall risk factors for cardiovascular disease. The odds ratios of reporting an association of the risks between people with elementary education and those with university degrees varied between 0.16 (95% confidence interval 0.12 to 0.22) for lack of exercise to 0.55 (95% confidence interval 0.39 to 0.77) for smoking. People in categories at greater risk of cardiovascular disease, such as those aged 65 or more or those with only elementary education, are less able to recall important cardiovascular disease risk factors. Identifying prevalent risks factors among prisoners might influence the development of CVD prevention strategies that are specifically directed to at risk prisoners.

Luisa Maria Roberta Tedesco (2014) [11] in her study Cardiovascular Diseases and Women: Knowledge, Attitudes, and Behaviour in the General Population in Italy, describes the percentages of correct response to each individual item regarding the knowledge about CVDs. Almost all of the participants (96.1%) reported having heard about CVDs, and among them, respectively, 89.4% and 74.7% correctly identified smoking and high cholesterol level as risk factors for CVDs, while only 46.3% and 31.5% indicated diabetes and familiarity. Overall, only 26.5% of the respondents were able to correctly identify the main CVDs risk factors. The data concerning the attitudes toward CVDs in the study population showed that more than half responded that is possible to prevent CVDs and, respectively, 83.5% and 81.4% responded that healthy diet and sport activity help to prevent CVDs. Respondents with a lower educational level, those who have three or more children, those who need more information about CVDs, and those who self-perceived a worse health status were most likely to have a positive attitude toward the perceived risk of developing CVDs. Prasuna J (2013) [16] in her study Awareness of disease and risk factors among patients with ischemic heart disease (IHD) in Government general hospital Kurnool, Andhra Pradesh, reveals that Awareness of risk factors was high for smoking, hypertension, inadequate exercise, stress in family, use of ground nut oil in cooking, A-Type personality and no exercises among patients with ischemic heart disease. A majority 9 (45%) of patients had average level of knowledge regarding risk factors of Ischemic heart disease, whereas 7 (35%) of participants had below average and 4 (20%) had above average level of knowledge. An Indian population in a hospital setting shows a lack of knowledge relating to modifiable risk factors of ischemic heart disease. By segregating demographic predictors of poor knowledge, such as current smokers and persons who do not exercise regularly, educational interventions can be effectively targeted and executed as

primary and secondary prevention strategies to reduce the problem of ischemic heart disease in India.

Patricia A. Cioe and Sybil L,2013in their study Cardiovascular Risk-Factor Knowledge and Risk Perception Among HIV-Infected Adults reveals that, there were no significant differences in knowledge by gender (p 5. 57), race and ethnicity (p 5.09), ART status (p 5. 85), or smoking status (p 5. 96). It was noted that 97% of participants knew that smoking was a risk factor for heart disease; however, only 66% of participants knew that older age was associated with an increased risk of heart disease. No significant relationships were found between age, years since HIV diagnosis, or years of education, and perceived risk of CVD and CVD risk factor knowledge Most participants had a fair degree of CVD risk factor knowledge; however, risk factor knowledge was not predictive of perceived risk of CVD. Perceived risk of CVD was only weakly associated with estimated risk, even when controlling for age of the participant.

(Patrick Mullie., *et al.* 2011) [14] in their study,Association between Cardiovascular Disease Risk Factor Knowledge and Lifestyle, states that Lack of physical activity, smoking, eating too much fat and experiencing more stress in daily life were the 4 most cited potential cardio-vascular risk. Lack of exercise, smoking and stress were more cited in the highest educational level category than in the lowest, with respectively 88.9%, 60.7%, 34.9% compared with 73.5%, 53.1% and 21.8% of the answers. The least cited risk factors were low consumption of fruits and vegetables, being overweight and eating too much salt. A high knowledge score of three or more was prevalent for only 34.8% in the low educational category, for 42.4% in the medium category and for 45.2% in the highest educational category risk factors in function of personal and nutritional characteristics. Reporting over-weight, eating too much fat and eating too much salt as risk factor is not associated with respectively the BMI, total fat or salt intake. Non- smokers reported smoking as a risk factor in only 55.9% of the answers, compared with 65.1% for the smokers, a low socioeconomic position as measured by the indicator education was associated with a lower knowledge of established and modifiable cardio-vascular risk factors. Risk factor knowledge, an essential step in prevention of CVD, is not systematically associated with a healthier lifestyle.

(Pragnesh *et al.*, 2014) [15] in their study, Study of knowledge, attitude and practice of general population of Gandhinagar towards hypertension, revealed that, Specific knowledge on hypertension was less. For example, 40.2% of all participants knew that hypertension only rarely causes symptoms whereas 24% of the participants knew normal blood pressure level. This lack of knowledge was associated with male gender, younger age, lower level of education and unemployment. The lack of proper knowledge of each responder should be given individual attention for good practice and fill the gap of this 10 % to 100 % as studies report that there is a positive correlation between knowledge and good attitude. Attitude of our population was very poor towards hypertension. We found reasonable gap between knowledge, attitudes and practices, so to overcome that it is very important to formulate and implement certain strategies by which positive attitudes can be converted into beneficial practices.

(David R Thomas, Yoke Leng N. Thomas,2009) in their study, Assessing knowledge about cardiovascular disease and stroke, revealed that differences in knowledge about the risk factors and warning signs for CVD and stroke were reported in many of the surveys. In terms of gender differences, women tended to have more knowledge of the risk factors and warning signs for CHD and stroke. With regard to age differences, people in the middle adult age groups (around 40-64 years) tend to be more knowledgeable than older (65+ years) and younger age groups (less than 35 years). Studies in the United States which made comparisons based on ethnicity were reported that Blacks and Hispanics had lower levels of knowledge and awareness of CVD and stroke than Whites. Surveys which made comparisons based on education and/or socio-economic status, reported higher levels of knowledge about CVD and stroke risk factors among people with higher levels of education and higher SES.

Methodology

The present study was done to assess the knowledge about CVD in general population in Srinagar city. A cross-sectional survey was conducted in Srinagar and a sample of 61 people was taken. Data was collected anonymously via self-administered questionnaire. The data was analysed using various statistical measures like mean and percentages.

Results

Table 1: Health status of the respondents

Characteristics	N	Percentage (%)
Personal health		
Poor	3	5
Fair	12	20
Good	30	49
Very good	11	18
Self-reported weight description		
Underweight	4	6
Normal	29	47
Overweight	26	44
Obese	2	3
30 – minute exercise per week		
0-2 Times	31	51
3-5 Times	25	41
5 Times or more	5	8
0-2 Times	31	51
Eating Healthy Food		
Everyday	22	36
Not everyday	38	64
Diseases:		
Family history of CVD	32	52
Hypertension	11	18
Diabetes	12	20
High blood cholesterol level	13	21
Coronary heart diseases	7	11
Free from any disease	8	14

Table no: 1 reveals the health status of the respondents. About (5%), (20%), (49%), (18%) and (8%) of respondents reported their health as fair, good, very good and excellent respectively. About 47% respondents have normal weight, while as another 44 % are overweight and 3% obese. The data indicates that most of respondents didn't exercise regularly for

30 minutes. 51% of respondents perform 0-2 times exercise in a week, and it is seen that only 8% of respondents perform exercise more than 5 times a week. 36% of respondents take healthy diet everyday (i.e. diet low in salt, fat free diet, fibre rich). On the other hand, 64% participants do not take healthy diet regularly. About 52% of respondents have strong family history of CVD. A fair number of respondents 18%, 20%, 21%, 11% suffered from other chronic diseases like hypertension, Diabetes, high blood pressure, and coronary heart disease respectively, whereas, 14% of the respondents are free from any disease.

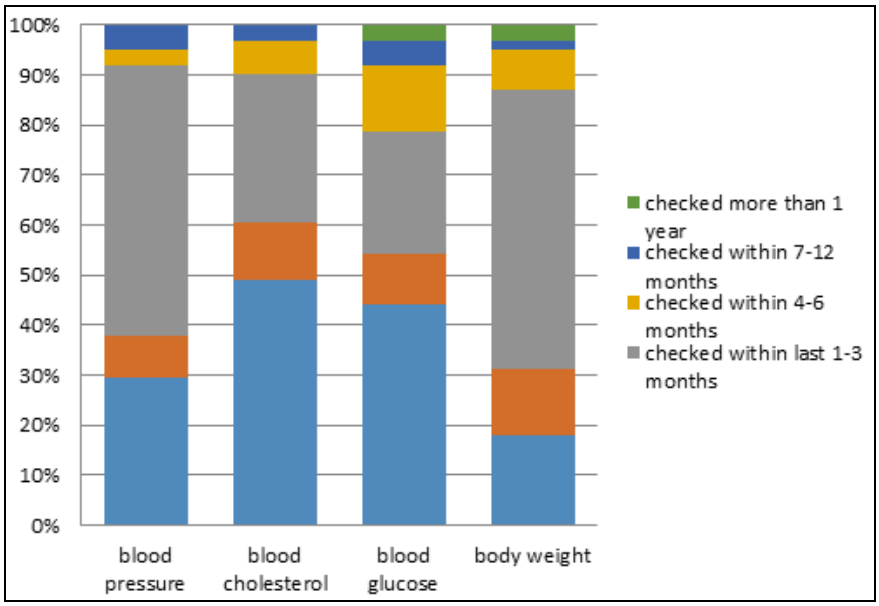

Fig 1: Health practices of respondents

The above fig. exhibits the practices of respondents towards their health, very few respondents have a positive trend. Only 24% of respondents have checked their blood glucose in last three months and 45% of respondents have never checked their blood glucose level before. About 29% of respondents checked their cholesterol levels in last 3 months whereas, as 49% never checked their blood cholesterol level before. Body weight and blood pressure measuring are the parameters which gets most positive results.57% of the respondents have checked their body weight and 54% of respondents checked their blood pressure in last 3 months, but it is seen that 30% of the respondents never checked their blood pressure before.

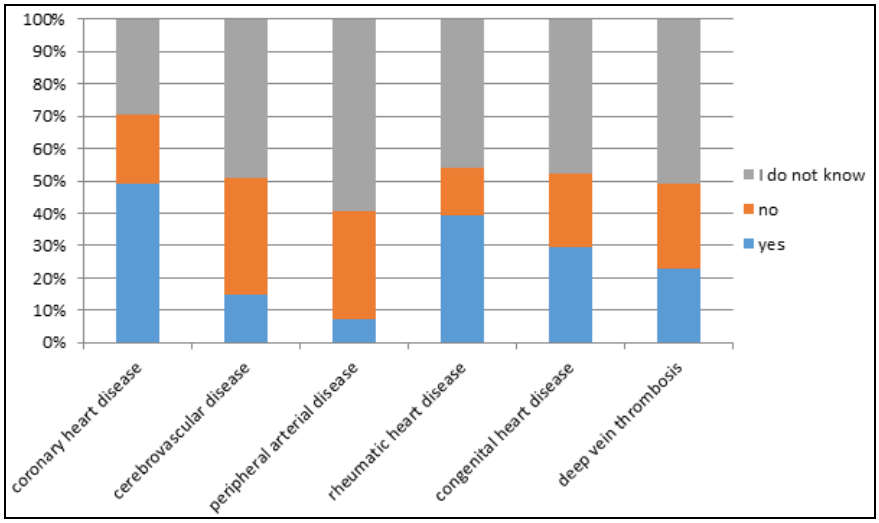

Fig 2: Respondents knowledge about CVD types

Fig. 32 flaunts the knowledge about types of CVD among respondents is fairly low. The most identified type of CVD indicated by participants is coronary heart disease 50% and rheumatic heart disease 39%. Whereas, the respondents have very low knowledge about other CVD types i.e. 15% cerebrovascular disease, 23% deep vein thrombosis and only 8% peripheral thrombosis.

Table 2: Knowledge of respondents about symptoms of heart attack

Symptoms	N	Percentage %
Pain or discomfort in the jaw, neck or back		
Yes	25	41
No	17	28
Don't know	19	31
Feeling weak ,light headed ,or faint		
Yes	28	46
No	19	31
Don't know	14	23
Chest pain or discomfort		
Yes	40	66
No	11	18
Don't know	10	16
Pain or discomfort in arms and shoulder		
Yes	22	36
No	31	50
Don't know	8	13
Difficulty in breathing or shortness of breath		
Yes	39	64
No	11	18
Don't know	11	18

Table 2 displays the knowledge of respondents regarding the symptoms of heart attack. It can be seen that the respondents have better knowledge regarding symptoms of heart attack as compared to other CVD types. About 46% of respondents know that feeling weak, light headed or faint as a symptom of heart attack. Around 66%of respondents had knowledge about chest pain or discomfort as heart attack symptom.64% of respondents know difficulty in breathing or shortness of breath as a symptom of heart attack. It is surprising to see that only 41% and 36% of respondents believed about pain or discomfort in the jaw, neck or back and pain or discomfort in arms and shoulders as symptoms of heart attack respectively.

Table 3: Knowledge of respondents about symptoms of stroke

Symptoms	N	Percentage (%)
Sudden numbness or weakness of the face, arm or leg		
Yes	28	46
No	16	26
Don't know	17	28
Sudden confusion or trouble speaking or understanding others		
Yes	28	46
No	13	21
Don't know	20	33
Sudden trouble seeing in one or both eyes		
Yes	27	44
No	19	31
Don't know	15	25
Sudden dizziness, trouble walking or loss of balance or coordination		
Yes	31	51
No	12	20
Don't know	18	29
Severe headache with no known cause		
Yes	30	49
No	11	18
Don't know	20	33

The above table depicts the knowledge about symptoms of stroke among the respondents. It has been found that the respondents were having moderate knowledge regarding stroke symptoms. The most common stroke symptom indicated by respondents is sudden dizziness, trouble walking or loss of balance of coordination (51%), followed by severe headache with no known cause (49%), sudden confusion or trouble speaking or understanding (46%) and sudden trouble seeing in one or both eyes (44%).

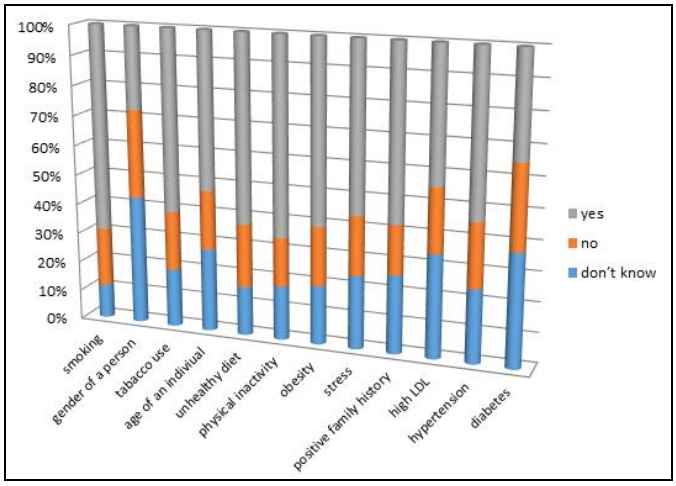

Fig 3: Knowledge of respondents about CVD factors

Fig 3: demonstrates the results of the multivariate analysis for factors associated with overall knowledge of CVD. In the univariate analysis, factors significantly associated with CVD knowledge included gender, age, smoking status, monthly income, eating healthy diet, tobacco use, obesity ,stress, diabetes and family history of CVD. It has been seen that the respondents were having good knowledge regarding factors of CVD. 70% of respondents identify smoking as the risk factor followed by physical inactivity 68%, unhealthy diet 65%, tobacco use 63%, obesity 62%, positive family history 60%, stress 59%, hypertension 56%, age of individual 55%, high

LDL 47%, Diabetes 37% and only 29% of respondents identify gender as a risk factor in developing CVD's.

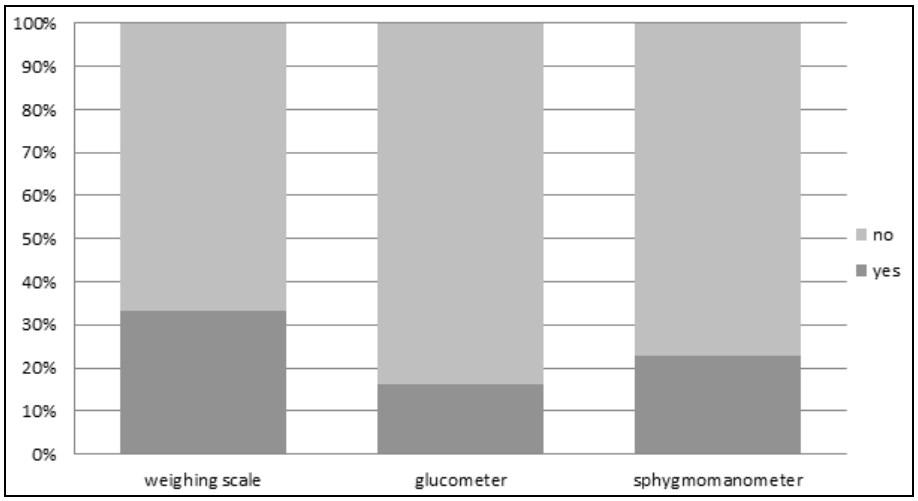

Fig 4: Availability of measuring instruments at home.

Fig. 4 very little percentage of respondents posessed the measuring instruments. Around 16% of respondents have glucometer, 22% of respondents have sphygmomanometer and 33% of respondents have weighing scale available at their home.

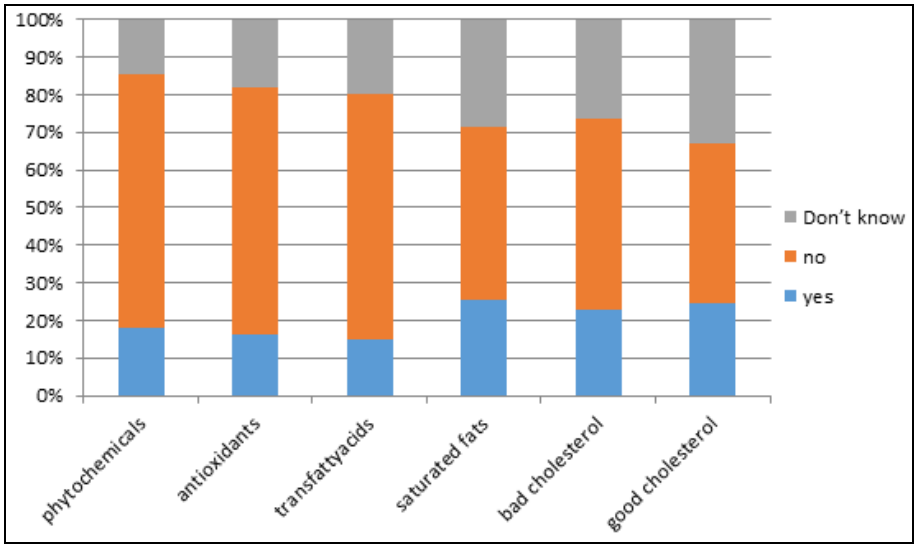

Fig 5: Knowledge of respondents about various nutrition related terms

Fig. 5 shows that knowledge of respondents regarding various nutrition related terms (i.e. phytochemicals, antioxidants, Tran's fatty acids, saturated fats, bad cholesterol, good cholesterol) is considerably low. The most common term known by the respondents are saturated fats and good cholesterol (25%) followed by bad cholesterol 23%, phytochemicals (18%), antioxidants (16%), and only 14% are aware of Tran's fatty acids. This is the worrisome finding in the current study is that respondents have very low knowledge about nutrition related terms.

Table 4: knowledge of respondents regarding unhealthy diet practices which can increase risk of CVD's

Symptoms	n	%
High dietary intakes of saturated fat, trans-fats.		
Yes	36	59
No	16	26
Don't know	9	31
High intake of salt		
Yes	33	54
No	17	28

Don't know	11	18
Low intake of fruits and vegetables		
Yes	26	43
No	19	31
Don't know	17	28
Low intake of fruits and vegetables		
Yes	40	65
No	9	31
Don't know	12	20

Table 4 highlights the knowledge of respondents regarding unhealthy diet practices, which can lead to CVD. The most common unhealthy diet practice identified by the respondents are consumption of high energy foods, such as processed foods that are high in fats (65%), followed by high dietary intake of saturated fat (59%), high intake of salt (54%) and low intake of fruits and vegetables (43%).

Table 5: Knowledge of respondents about the healthy dietary habits which can reduce risk of CVD

Symptoms	n	%
Elimination of trans-fat		
Yes	36	59
No	17	28
Don't know	8	13
A healthy diet contribute healthy body weight, a desirable lipid profile and desirable blood pressure		
Yes	45	74
No	10	16
Don't know	6	10
Low consumption of processed foods		
Yes	32	52
No	17	28
Don't know	12	20
Adequate intake of fibre		
Yes	23	38
No	19	31
Don't know	19	31
Low consumption of salt		
Yes	45	74
No	12	20
Don't know	14	23
Intake of low fat diet		
Yes	41	67
No	5	8
Don't know	15	24

Table 5: displays the knowledge among respondents regarding healthy dietary habits which reduce risk of CVD. The most common healthy dietary habit identified by participants are low consumption of salt (74%), intake of low fat diet (67%), low consumption of processed foods (52%), and only (38%) of respondents are aware that fibre rich foods (i.e. fruits and vegetables) help to reduce the risk of CVD.

Discussion

The present study reveals that around 47% respondents have normal weight, while as another 44 % are overweight and 3% obese. 36% of respondents take healthy diet everyday (i.e. diet low in salt, fat free diet, fibre rich). On the other hand, 64% participants do not take healthy diet regularly. About 52% of respondents have strong family history of CVD. A fair number of respondents 18%,20%,21%,11% suffered from other chronic diseases like hypertension, Diabetes, high blood pressure, and coronary heart disease respectively, whereas, 14% of the respondents are free from any disease. The above results are in accordance with the study conducted by Hala Al-Nafisi (2014) [1] who reported that (42.8%) reported that they had normal body weight; however, 32.7% of them were found to be either overweight or obese according to their calculated BMI. Approximately one-fifth (17.9%) of respondents indicated that they smoked, 13.0% indicated that they used to exercise for 30 minutes, 5 or more times/week, and 27.2% reported eating healthy food every day. One-third (33.3%) of participants reported to have very stressful or stressful lifestyle. About one-quarter of participants indicated to have chronic diseases including hypertension, diabetes, dyslipidaemia and CHD. He present study reveals that not so healthy practices were found among respondents, only 24% of respondents have checked their blood glucosein last three months and 45% of respondents have never checked their blood glucose level before. About 29% of respondents checked their cholesterol levels in last 3 months whereas, as 49% never checked their blood cholesterol level before. Similar findings were reported by Pragnesh parmer, 2014 [15], only 20.6% participants checked their own blood pressure in last one year. Poor practice regarding regular blood and urine examination as well as of exercise may be due to lack of importance and awareness for need of it. The present study depicts that the respondents have better knowledge regarding symptoms of heart attack as compared to other CVD types. About 46% of respondents know that feeling weak, light headed or faint as a symptom of heart attack. Around 66%of respondents had knowledge about chest pain or discomfort as heart attack symptom.64% of respondents know difficulty in breathing or shortness of breath as a symptom of heart attack. These results are in accordance with the reports of Abdelmoneim *et al.*, 2014 [1] that knowledge regarding the CVD risk factors was better than that for types of CVD and symptoms of heart attack or stroke. The most identified type of CVD indicated by participants is coronary heart disease 50% and rheumatic heart disease 39%. Whereas, the respondents have very low knowledge about other CVD types i.e. 15% cerebrovascular disease, 23% deep vein thrombosis and only 8% peripheral thrombosis, in concurrence with this Muhammad S Khan, 2006 [12] reported a very worrying finding that 81% of the study participants were not aware of any symptoms of heart attack and only 6% could identify two or more symptoms. This may increase the delay in seeking early medical care among AMI subjects, which would lead to a worse outcome. The current study revealed that the

respondents were having moderate knowledge regarding stroke symptoms. The most common stroke symptom indicated by respondents is sudden dizziness, trouble walking or loss of balance of coordination (51%), followed by severe headache with no known cause (49%), sudden confusion or trouble speaking or understanding (46%) and sudden trouble seeing in one or both eyes (44%). Awad and Al-Nafisi, 2014 [1]. The most common stroke symptoms indicated by participants were sudden confusion or trouble speaking or understanding others (36.4%), followed by sudden numbness or weakness of the face, arm, or leg (34.7%), and sudden dizziness, trouble walking, or loss of balance or coordination (32.2%). Muhammad S Khan, 2006 [12] also reveals that only 42% of the subjects had a sound level of knowledge of the risk factors of heart disease. Out of 720 study subjects, 665 (92%) had good level of knowledge about the association of fatty food consumption with heart disease, 597 (83%) were able to correctly identify the association of smoking with heart disease, 302 (42%) were knowledgeable about the association of obesity with heart disease, and only 178 (25%) knew about the protective effect of exercise.

A pleasant finding of the study is that majority of the respondents had good level of awareness about the dietary habits that can reduce the risk of CVD's like low consumption of salt (74%), intake of low fat diet (67%), low consumption of processed foods (52%), and only (38%) of respondents are aware that fibre rich foods (i.e. fruits and vegetables) help to reduce the risk of CVD. The results of the present study are in concordance with the results of Muhammad S Khan, 2006 [12] who revealed that, out of 720 study subjects, 665 (92%) had good level of knowledge about the association of fatty food consumption with heart disease.

Conclusion

The study conducted in Srinagar city aimed at assessing the Public knowledge of cardiovascular diseases and its risk factors. It is seen that the majority of the population do not have sound knowledge regarding the disease. Did not have well awareness about healthy lifestyle practices, have a strong family history of CHD. Knowledge of respondents regarding various nutrition related terms (i.e. phytochemicals, antioxidants, Tran's fatty acids, saturated fats, bad cholesterol, good cholesterol) is considerably low. Good number of respondents have knowledge about symptoms of heart CVD, out of those symptoms of heart attack are much known. A pleasant finding of the study is that majority of the respondents have good level of awareness about the dietary habits that can reduce the risk of CVDS. Education is the best tool for awareness generation. Various awareness programmes should be organised on health day, heart day etc. to generate and spread knowledge regarding CVDs among masses.

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References

1. Abdelmoneim Awad, Hala Al-Nafisi. Public knowledge of cardiovascular disease and its risk factors in Kuwait, 2014.
2. Awad A, Abahussain E. Health promotion and education activities of Community pharmacists in Kuwait. Pharm World Sci., 2010.
3. Charles Agyemang, Juliet Addo, Cardiovascular disease, diabetes and established risk factors among populations of sub-Saharan African descent in Europe, 2009.
4. Charles H. Henneke, Increasing Burden of Cardiovascular Disease, 2008.
5. Ebin J Arries, Cardiovascular knowledge and Risk Factors among Prisoner, 2011.
6. Global Atlas on Cardiovascular Disease Prevention and Control. Mendis S, Puska P, Norrving B editors. World Health Organization in collaboration with the World Heart Federation and World Stroke Organization, Geneva 2011.
7. International Diabetes Federation: IDF diabetes atlas: sixth edition. http://www.idf.org/diabetesatlas
8. Jafary FH, Aslam F, Mahmud H, Waheed A, Shakir M, Afzal A *et al.* Cardiovascular health knowledge and behavior in patient attendants at four tertiary care hospitals in Pakistan-A cause for concern. BMC Public Health, 2005.
9. Kamili M, Dar I, Ali G, Wazir H. Prevalence of coronary heart diseases in Kashmir, 2009.
10. Louise Potvin, Lucie Richard. Knowledge of cardiovascular disease risk factors among the Canadian population, 2000.
11. Luisa Maria Roberta Tedesco, Cardiovascular Diseases and Women: Knowledge, Attitudes, and Behaviour in the General Population in Italy, 2014.
12. Muhammad S Khan, Fahim H Jafary Knowledge of modifiable risk factors of heart disease among patients in Karachi, Pakistan, 2006.
13. National Heart, Lung, Blood Institute. Check Your High Blood Pressure IQ Publication No. 94-3671. Bethesda, MD: U.S. Government Printing Office, 1994.
14. Patrick Mullie, Peter Clarys. Association between Cardiovascular Disease Risk Factor Knowledge and Lifestyle, 2011.
15. Pragnesh Parmar, Gunvanti B. Rathod, Study of knowledge, attitude and practice of general population of Gandhinagar towards hypertension, 2014.
16. Prasuna J. Awareness of disease and risk factors among patients with ischemic heart disease IHD, 2013.
17. Sug Yoon S, Heller RF, Levi C, Wiggers J, Fitzgerald PE. Knowledge of stroke risk factors, warning symptoms, and treatment among an Australian Urban population. Stroke, 2001; 32:1926-1930.
18. World Health Organization: Cardiovascular diseases. http://www.euro.who.Int/en/health-topics/noncommunicable-diseases/cardiovascular-diseases/cardiovascular-diseases2/definition-of-cardiovascular-diseases