Original Review Article

IJCRR
Section: Healthcare
Sci. Journal
Impact Factor
4.016
ICV: 71.54

Attitude and Practices of early adults of Lucknow city about Heart diseases: A cross-sectional survey

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ABSTRACT

Introduction: CVD is a leading cause of mortality in India of which majority of individuals are adults in the age group of 20-40 years. However because of less knowledge among people evident from various researches the attitude and practices associated with CVD is hampered.

Aim and objectives: A cross- sectional study was conducted to determine the level of attitude and practices on cardiovascular disease among early adults of age group 20-40 years.

Method/ study design: A total of 250 adults aged 20-40 years were included using purposive sampling excluding those who were illiterates and were CVD patients, personally questionnaires were filled for each individual.

Findings: Majority of respondents were female 143 (57.20%), the mean age of the participants was 27.42 ±6.7. Most of the people at present did not suffer from any morbidity condition with a percentage of 112 (44.80%), followed by those 87 (34.80%) who were seeking medical help for some or the other kind of illness. The mean score for attitude was 11.82±5.032, 37.6% score ranging from 0 to 19 and for practice, scores ranged from 3 to 15 (mean=8.93; SD=2.2; n=250), 87.60% (n=219) of the respondents scored in the poor practice range while 12.40% (n=31) followed fair practice. None of the respondents fell in the category of Good practice.

Conclusion: A continuous effort is needed to enhance the attitude by involving them into educational programmes and making them aware of the available CVD guidelines by the government. The primary focus lies on improving the attitude because adults are the most productive people and their energy might get wasted if their practices continue to hamper their health

Key Words: CVD, Lifestyle, Risk factors, Morbidity

INTRODUCTION

The world's largest growing economy India is undergoing a rapid economic growth, coupled with demographic, cultural and lifestyle changes posing a serious concern of the health profile of India citizens. In India, CVD has been designated as the leading cause of mortality and morbidity, representing a total of 31% of all global deaths (WHO Fact sheet, 2015).

The majority of individuals lying in the age group of 20-69 years will encounter nearly half of the estimated deaths increasing to 24.8% which means losing more productive people too these diseases. Different studies on heart disease confirmed that most of the risk factors for heart disease starts to develop at young age (Berenson, 2009; Pencina et al., 2009;). Studies completed among university students showed that college students have enough risk factors for developing CVD (Hlaing et al., 2007; Spencer, 2002). Awareness towards the RFs as already mentioned stands of utmost importance and its management and continued practice have resulted in improved situation of individuals (Sarrafzadegan et al., 2009, Rani et al., 2012; Ramanath et al. (2012) Eastwood et al., 2013; Khosravi et al. 2010) such as bringing the SBP, DBP level to normal range, decreased cholesterol levels, smoking cessation, increased physical activity etc. The most important reason for the unawareness is the lack of knowledge which in return affects their attitude and practices, and pertaining to the fact that there is very little existing knowledge on CVD among both sexes and also that they identify CVD as a risk for their health in the coming future (Vanhecke at al., 2006) and also among those who have ex-

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Received: 20.01.2017 **Revised:** 27.01.2017 **Accepted:** 04.02.2017

isting CVD (Celentano et al., 2004). So a person with a positive attitude will divert himself to change his behaviour to practice good things as the existing studies prove that there is significantly low proportion of people having good knowledge (Pandey and Khadka, (2012; Winham and johns (2011), Positive attitude (Bollu et al., 2015; Oguoma et al. 2014) and fair practice (Mittwali et al., 2013; Andsoy et al., 2015).

METHODOLOGY:

Design, sample and setting

Heart disease associated attitude and practices among early adults was conducted using a descriptive study. The criteria included in the study were 1) Selected individuals belonging to the age group of 20-40 years), 2) Literate individuals not diagnosed with CVD and a Lucknow citizen. The study was conducted in the city of Lucknow, participants were approached personally and permission was obtained from them by telling the gist of the study. Participants were recruited from university and houses. A purposive sample of 250 was recruited in the present study.

Data collection tools

A set of questionnaire was developed with first part consisting of socio-demographic data. Part II consisted of 20 items tool each for attitude and practice. 3- point likert scale for attitude (agree, neutral and not agree) and (never. Seldom and always) for practice. The cronbach's alpha for this questionnaire were .909 and .712 respectively. The scores were classified into 3 levels (Positive, Neutral and Negative Attitude) and (Good, Fair and poor practice) according to Bloom's cut off point. Positive attitude and good practice: - Practice score that fell above 16 scores (above 80%), Neutral attitude and Fair practice: - Practice score that fell between 12-15 (60% - 79%) and Negative attitude and Poor practice: - Practice score that fell below 12 (0-59%). Reveres scoring was done was negative practice.

Data Analysis

Data was analysed using SPSS (version 20), descriptive statistics was used to describe the study variables by reporting their frequencies and percentages. Data was analysed by reporting their means and SD and the level of attitude and practice score among early adults.

Results

Socio- demographic characteristics

The study results summarized in Table 1 reveals the socio-demographic characteristics of the respondents. The total numbers of respondents included in this study were two hundred and fifty (250) out of which 129 (51.60%) belonged to the age group of 20 to 25 years, 53 (21.20%) belonged to the age group of 25 to 30 years, 24 (9.60%) were from the age group of 30 to 35 years and 44 (17.60%) were found between the age group of 35 to 40 years. The mean age of the participants was 27.42 ±6.7.

The majority of the respondents were Hindu 219 (87.60%), Muslim being 30 (12%) and Christians being 1 (0.40%). Maximum number of respondents belonged to the general category 130 (52%) followed by SC being 79 (31.60%), OBC 32(12.80%) and ST 9 (3.60).

There were a total number of 143 (57.20%) female and 107 (42.80%) male respondents in which the majority of the participants were single 158 (63.20%), 90 (36.00%) were married and only 2 (0.80%) were divorced.

Most of the people at present did not suffer from any morbidity condition with a percentage of 112 (44.80%), followed by those 87 (34.80%) who were seeking medical help for some or the other kind of illness which includes certain severe conditions such as high cholesterol 12 (4.8%), arthritis 9(3.5%) , lower abdomen pain 7(2.8%), hypotension 8(3.2%) , dengue 3(1.2%), thyroid 3(1.2%), migraine 6(2.4%), hypothyroid 1(.4%), cervical 2(.8%), Tuberculosis 2(2.8%), paralysis 3(1.2%), gastric discomfort 4(1.6%), Urinary tract infection 4(1.6%), liver cancer 1(.4%), cyst 1(.4%), sinus 1(.4%), asthma 1(.4%), osteoporosis 2(.8%), kidney disorder 5(2%), liver failure 1(.4%), typhoid 1(.4%), hepatitis 1(.4%), fatty liver 1(.4%) and kidney stones 1(.4%) while conditions like weakness 9(3.5%), hand shake 2(.8%), fatigue 6(2.4%) , diarrhoea 1(.4%), heaviness1(.4%), anxiety 4(1.6%), fever 2(.8%), irregular periods 7(2.8%), obesity 5(2%), throat pain 4(1.6%), back pain 7(2.8%), depression 2(.8%), leg swelling 1(.4%) which involves less distress yet imperative care. Quite equal number of people was found from diabetes and hypertension with 9.20 % (23) and 10.00% (25) respectively. Only 2 (.80%) people were suffering from both diabetes and hypertension and 1 (.40%) from coronary heart disease. The percentage of professional and self-employed respondents was 16.40% and 18.40% with housewives and retired respondents being 3.20% and 9.60% only.

Table 1: Socio-demographic Characteristics of the Study Subjects (N=250)

Detail	Frequency (n=250)	Percentage
Age (in years)		
20 to 25	129	51.60
25 to 30	53	21.20
30 to 35	24	9.60
35 to 40	44	17.60
Total	250	100

Gender		
Male	107	42.80
Female	143	57.20
Total	250	100
Marital Status		
Single	158	63.20
Married	90	36.00
Divorced	2	0.80
Morbidity Status (Present)		
Diabetes	23	9.20
Coronary heart disease	1	0.40
Hypertension	25	10.00
Any other	87	34.80
None	112	44.80
Diabetes and hypertension	2	0.80
Employment		
Unemployed	131	52.40
Retired	8	3.20
Housewife	24	9.60
Professional	41	16.40
Self-employed	46	18.40
LIG (below 30k)	97	38.80

Self Reported Attitude on CVD:

The CVD associated attitude score of the respondents was classified as positive, Neutral and negative with the highest negative mean score of 11.82±5.032, 37.6% score ranging from 0 to 19 as demonstrated in Figure 1 and figure 3.

Table 2 demonstrates the majority of attitude question were replied with a positive answer for personal attributes, however when asked about morbidity pattern associated CVD attitude such as keeping an holistic approach to treat CVD 47.20% showed a neutral attitude quite similar to the study conducted by **(Oguoma et al.,2014).**

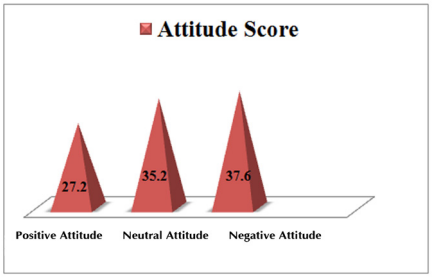

Figure 1: Detailed status of other risk factors associated CVD Knowledge Score

Table 2: Detailed status of CVD associated Attitude score

Characteristic	Agree	Neutral	Not Agree
Personal Attributes			
Do you think after knowing person at risk of CVD, person must be reported to cardiology clinic?	181 (72.40)	49 (19.60)	20 (8.00)
Do you believe even a single symptom of CVD should be taken seriously?	160 (64.00)	46 (18.40)	44 (17.60)
Behavioural counselling and medications for risk factors provide relief for CVD.	162 (64.80)	63 (25.20)	25 (10.00)
Change in lifestyle is the good sign of wellness.	174 (69.60)	53 (21.20)	23 (9.20)
Morbidity Pattern			
Impact of regular blood examination reduces the severity of CVD condition.	136 (54.40)	81 (32.40)	33 (13.20)
Should we keep holistic medication for curing CVD	101 (40.40)	118 (47.20)	31 (12.40)
Do you think more and more people suffering from CVD should adopt practices to prevent CVD	176 (70.40)	53 (21.20)	21 (8.40)
Do you believe in visiting CVD clinic in case of witnessing any minor symptom?	151 (60.40)	54 (21.60)	45 (18.00)
Dietary Pattern			
Do you think that diet control (fat restriction) acts as central pillar in management of CVD	173 69.20	55 22.00	22 8.80
Healthy eating practices lead to control bp or reduced CVD risks.	183 73.20	47 18.80	20 8.00
Do you think it is good to avoid extra added salt in your diet?	181 (72.40)	49 (19.60)	20 (8.00)
Do you believe modified diets acts as lifesaving phenomena in CVD patient?	118 (47.20)	96 (38.40)	36 (14.40)
Physical Activity			

Do you think regular physical exercise is essential to control raise blood pressure/atherosclerosis.	192 76.80)	43 (17.20)	15 (6.00)
Control brisk walking is necessary to avoid angina pectoris/stroke.	135 (54.00)	92 (36.80)	23 (9.20)
Yoga and meditation are considered exercise that will help lower a person's chance of developing heart disease.	193 (77.20)	37 (14.80)	20 (8.00)
Irregular physical activity is one of leading causative factor for provoking heart problem.	156 (62.40)	73 (29.20)	21 (8.40)
Addiction Pattern			
Is it only smoking responsible for heart problems?	89 (35.60)	36 (14.40)	125 (50.00)
Do you think excess alcohol can worsen the blood pressure level?	164 (65.60)	52 (20.80)	34 (13.60)
Complications of CVD is due to intake of pan masala/gutkha and so on	149 (59.60)	65 (26.00)	36 (14.40)
Excessive medication acts as causing root for heart problem.	82 (32.80)	83 (33.20)	85 (34.00)

Self Reported Practice on CVD:

The practice scores ranged from 3 to 15 (mean=8.93; SD=2.2; n=250)(Figure 2), 87.60% (n=219) of the respondents scored in the poor practice range while 12.40% (n=31) followed fair practice. None of the respondents fell in the category of Good practice.

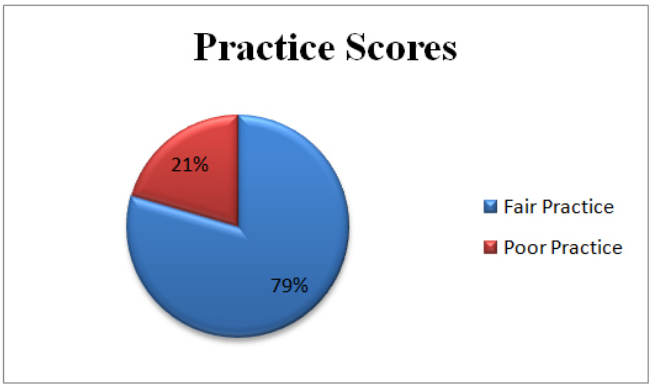

Figure 2: Detail of CVD associated Practice Score

Table 3: CVD associated Practice among Respondents

Characteristic	Never	Seldom	Always
Personal attributes			
Have you felt any risk factor of CVD in recent years?*	165 (66.00)	59 (23.60)	26 (10.40)
How many times have you identified yourself with the symptom of heart problem?*	162 (64.80)	65 (26.00)	23 (9.20)
Have you gone through any sessions of counselling related to CVD?*	208 (83.20)	32 (12.80)	10 (4.00)
Have you adopted any strategies for wellness?	126 (50.40)	77 (30.80)	47 (18.80)
Morbidity Pattern			
Have you gone through your blood profile and lipid profile?	96 (38.40)	141 (56.40)	13 (5.20)
Do you always prefer going for medicine treatment?	40 (16.00)	107 (42.80)	103 (41.20)
Have you followed any primordial practice to delay your heart problems?	156 (62.4)	72 (28.8)	22 (8.8)
Have you reported or examined yourself for CVD in any clinic?	192 (76.8)	42 (16.8)	16 (6.4)
Dietary Pattern			
Taking fatty foods more than 3 times/week?*	65 (26.0)	138 (55.2)	47 (18.8)
Taking regularly healthy meal for wellness	46 (18.4)	115 (46.0)	89 (35.6)
Use more than 3tsp salt/day*	106 (42.4)	96 (38.4)	48 (19.2)
Taken treatment as modified diet in last one month?	174 (69.6)	56 (22.4)	20 (8.0)
Physical Activity			
Are you doing physical exercise to maintain your body weight?	77 (30.80)	92 (36.80)	81 (32.40)
Are you taking a 30 min brisk walk in a day?	75 (30.00)	97 (38.80)	78 (31.20)
Have you joined any group for yoga or meditation or doing it yourself?	156 (62.40)	59 (23.60)	35 (14.00)
Have you ever felt lack of oxygen/breathlessness during walking/exercise?*	118 (47.20)	93 (37.20)	39 (15.60)
Addiction Pattern			
Not smoking or being a passive smoker	186 (74.40)	40 (16.00)	24 (9.60)
Alcohol intake without restriction as feel well*	197 (78.80)	45 (18.00)	8 (3.20)
Any changes have you done after knowing about CVD due to tobacco intake?	174 (69.0)	49 (19.60)	27 (10.80)
Have you taken any sleeping drugs or anti-depressants in the last one month?*	212 (84.80)	30 (12.00)	8 (3.20)

*Negative scoring item

DISCUSSION

The results summarise in table 2 illustrates that most of the respondents had a positive approach towards dietary pattern, 69.20% agreed that diet control can act as a central pillar for CVD management, while most of them had a neutral attitude in believing modified diets as a phenomena of change for "at risk" individuals. 72.40%individuals agreed of avoiding salt in their diet similar to the results found by (Bollu et al., 2015). Most respondents displayed quite a positive attitude for physical activity associated attitude such as 76.80% and 77.20% agreed that physical exercise and yoga along with meditation have a positive effect on CVD patients respectively more than the results obtained by (Bollu et al.,2015).

Study participants however had a less positive for smoking (50%), and excessive medication (34%) being the only reason for heart problems. But the intake of alcohol and tobacco being major a major risks for heart diseases was accepted by 65.60% and 59.60% respondents respectively

According to table no 3 for practice associated with CVD, In the "Never" component 208 (83.20%) respondents have never attended a single counselling related to CVD and almost half of the individuals have not adopted any strategy of wellness More than half of the respondents (62.40%) did not follow any primordial practices to delay the onset of heart diseases; while 41.20% always preferred to receive medicine treatment and very few (56.40%) reported getting their blood profile checked.

In the Dietary pattern section more than half (55.20%) of the subjects reported frequent consumption of fatty food more than 3times a week, and around 38.4% of them consuming more than 3 tsp spoon a day. Consumption of any modified diet in last one month was only reported by 8.00%.

Yoga or meditation was found to be practiced by only 14% respondents, and 37.20% experienced restlessness during walking or exercise. The practice of doing physical exercise or brisk walking regularly was found among 32.40% and 31.20% respectively mush less than the results reported by (Oguoma et al.,2014) of 64.9% indulging in any form of exercising.

The consumption of alcohol and smoking was seldom seeing among 40% and 45% respectively as compared to 86.3% people stated by (Mittwali et al., 2013). However 69% subjects did not accept of adopting any change after knowing the harmful effects of tobacco on health whilst only 3.20% people reported of consuming any anti- depressants or sleeping drugs.

CONCLUSION

The percentage of Good score for attitude and practice among early adults were 27.2% and 21.2% respectively. The attitude among adults is negative because of which their practice suffers. A continuous effort is needed to enhance the attitude by involving them into educational programmes and making them aware of the available CVD guidelines by the government. The primary focus lies on improving the attitude because adults are the most productive people and their energy might get wasted if their practices continue to hamper their health.

ACKNOWLEDGEMENT

Special mention goes to the respondents who took time to complete this survey along Dr. Rakesh Pradhan Chief Medical Officer, BBAU Lucknow for providing all the needed help throughout the study. Authors acknowledge the immense help received from the scholars whose articles are cited and included in references of this manuscript. The authors are also grateful to authors / editors / publishers of all those articles, journals and books from where the literature for this article has been reviewed and discussed.

Ethical clearance:

As the research is a descriptive one, no human blood or specimen was taken; only verbal communication was done for filing the questionnaire whilst keeping the names strictly private in the present study. Thus, the clearance was not needed for the present work and it went past the ethical committee approval.

Source of funding: N/A

Conflict of Interest: N/A

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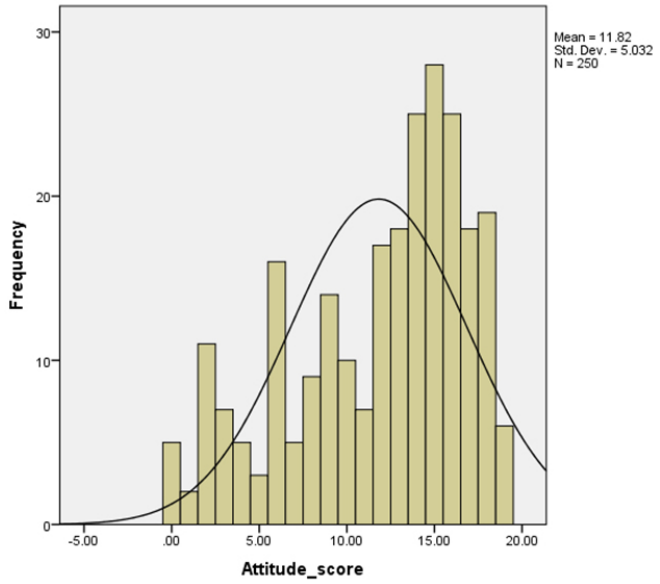

Figure 3: Distribution for Attitude Score.

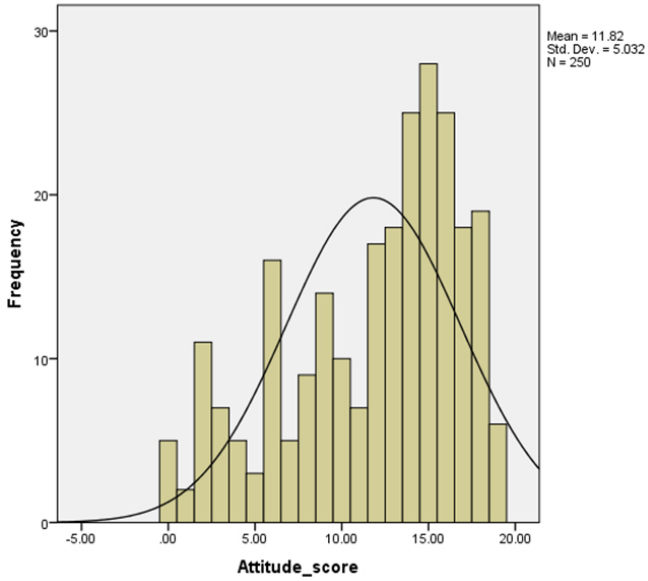

Figure 4: Distribution for Practice Score.