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The Role of Lifestyle in Development of Coronary Heart Disease

Sushama J. Bhosale

Abstract

This chapter focuses on the study designed to assess the role of lifestyle in the development of coronary heart disease (CHD). The data were analyzed to compare the patients of CHD with matched normal. Lifestyle is defined as the general behaviour pattern of an individual including health behaviour, job involvement and work style, social interactions, intimacy, locus of control and values. For this purpose the matching of patients was carried out on one to one basis and on the parameters of the age, education, family size and socioeconomic status. Total sample size was 162. To measure lifestyle, a structured interview schedule was prepared which included questions on the subparts, viz. health behaviour pattern, job involvement and work style, social interactions, intimacy, locus of control, values. The coding of the responses was quantified. The higher is the scores more is the risky lifestyle whereas lower scores indicate the healthy lifestyle. Qualitative and quantitative analysis were carried out.

Keywords: coronary heart disease, lifestyle, health behaviour pattern, job involvement, social interactions, intimacy, locus of control, values

1. Introduction

Cardiovascular disease is reported to be the leading cause of death in world. In 1998, 12.4 million people died of heart attack and stroke. Of these 78% were in low and middle income countries. The high income countries had lower death rates because of better preventive and treatment program [1]. Though, several clinical and biochemical risk factors have been identified, the role of psychological factors are also gaining importance during the past few decades. Several risk factors have been identified to be associated with coronary heart disease (CHD) which include causative risk factors (hypertension, hyperlipidemia and diabetes), conditional risk factors (triglycerides and lipoprotein), and predisposing risk factors (obesity, physical activity, sex, family history, socioeconomic factors, insulin resistance and psychological factors) [2]. Evidence of various studies has shown a strong association in psychological stress and CHD. Cardiovascular disorders pose a major health problem for industrialized societies in terms of excess of morbidity and mortality. It is evident from the review of literature that there is a strong relationship between coronary heart disease and some psychological factors. Psychological variables like stress, personality, anxiety and lifestyle are contributing along with high blood pressure, obesity; lack of exercise,

cigarette smoking and high blood cholesterol to the development of CHD [3]. In present study, a comparative study is carried out between coronary heart disease patients and non-coronary individuals in relation to lifestyle.

Large number of clinical and biochemical factors have been identified in development of CHD, the role of psychosocial factors are also gaining importance during the past few decades. The World Health Organization has stated that since 1990, 80–90% of people dying from CHD had one or more risk factors associated with lifestyle [4]. Lifestyle is a way person lives. This includes patterns of individual's health behaviour, social interactions, attitudes, values, belief and essentially the way the person perceived by himself/herself and at times also how he/she perceived by others. Lifestyle is one of the major factors which have shown a strong association with CHD [5]. Lifestyle is based on subjective perception, is purposeful and goal directed. It is motivated by a desire to overcome feeling of inadequacy coupled with an urge to succeed. The general goals of lifestyle are to understand, predict, and control life and self. Lifestyle has been found, as pointed out earlier, to have influence on individual's health, adjustment to environment, psychosomatic and psychiatric illness [6]. Health psychologists found that healthy lifestyle and dietary intake are associated with positive effects on blood cholesterol [7]. Diet, sleeping pattern, smoking, and alcohol taking habits have a negative effect on health [7].

Russek and Zohman [8] observed in young coronary patients that prolonged emotional strain was associated with job responsibility. The Framingham study had demonstrated the significance of lifestyle, employment and interpersonal stress. By showing that in males under 65, aging worries and daily stress and tension were associated with a greater risk of developing CHD, while for males and females over 65; marital dissatisfaction or disagreements were risk factors for CHD [9]. A diet high in fat, obesity and lack of exercise increases the risk of heart disease. Tobacco use, whether it is smoking or chewing tobacco, increases risk of cardiovascular disease [10].

There is a positive relationship between heart disease and fat intake, obesity, smoking and lack of exercise. The relationship between smoking and risk for CHD is simple and direct. Smoking has several negative effects on cardiovascular system (MacDougall, 1983, cited in [6]). Job dissatisfaction and work load in males emerged as a factor of predictive of CHD [6].

In the present study, lifestyle is measured on the basis of health and behaviour pattern, job involvement, social interactions, intimacy, locus of control and values.

2. Status in India

In India, in the past five decades, rates of coronary disease among urban populations have risen from 4 to 11% and four Indians die every minute due to heart disease. In India, 50% of heart patients are under 45 years of age [11]. CHD is emerging as a major cause of death in India. It has been projected that 15 years from now India would have highest CHD deaths compared to any other country [12]. ICMR and WHO have predicted that cardiovascular diseases would be the most important cause of mortality and morbidity in India by the year 2015 [13]. Data from Christian Medical College, Vellore and All India Institute of Medical Sciences, New Delhi, over a period of 30 years showed a decline in admission for rheumatic heart disease (RHD) and increase in admission for CHD [14]. A comparative study in Singapore on Indians and Chinese, revealed stronger cardiovascular reactivity to stress among Indians than compared to Chinese men [15]. Chronic anxiety and tension have been suggested as factors in the development of CHD. There is strong evidence supporting prognostic associations with social isolation and low perceived

emotional support and unhealthy lifestyle behaviors in the development of CHD [16]. In India, it has been observed that there is age related increase in CHD. The incidence of myocardial infarction (MI) was more common in urban India than rural areas of India [17]. Studies in India have shown that heart attacks in India occur 10 years earlier than in West. Hence it is needed to undertake well designed prospective studies for evaluation of CHD in relation to psychological factors [18]. According to Theorell et al. [19], cases of CHD may increase from about 2.9 crore in 2000 to as many as 6.4 crore in 2015. The prevalence rates among younger adults (age group of 40 years and above) are also likely to increase. Prevalence rates among women will keep pace with those of men across all age groups. Data also suggest that prevalence rates of CHD in rural populations will remain lower than that of urban population [17].

In brief the rationale of the study is the limited research available in this area related to psychological factors in India. This study was carried on matched subjects to contribute to this significant domain of research.

Lifestyle is one of the major factors which have shown a strong association with CHD [5]. Lifestyle is based on subjective perception. The behaviour pattern of an individual as expressed by his motives, his manners of coping and other factors including values, social and family satisfaction, job satisfaction and work style are called lifestyle. In the present study lifestyle is measured on health and behaviour pattern, job involvement, social interactions, intimacy, locus of control and values. Research work has been done linking lifestyle, personality and coronary heart disease. It shows that Type A behaviour pattern (TABP) promotes a lifestyle which facilitates exposure to range of social, personal and occupational stresses which emerges into a coronary heart disease. Wright's identified five separate paths to coronary artery disease that are inherited risk based on family history, risks that accrue from personal lifestyle choices such as overeating and lack of exercise, anger directed inward, anger directed outward that is combined with a sense of time urgency and chronic activation and the traditional Type A pattern identified by Rosenman and Friedman. Regular physical activity in the context of work, recreation or an exercise training programme is associated with a marked reduction in heart disease related deaths in patients. Exercise has positive effects on the cardiovascular system that reduce risk for coronary artery disease and myocardial ischemia. Exercise tends to reduce heart rate, it improves the efficiency of the heart and it reduces blood pressure. It improves efficiency in the respiratory system so that oxygenation of blood and supply of oxygen to heart is better. Exercise reduces weight and there is a beneficial effect on cholesterol, triglycerides and ratio of HDLs to LDLs. The National High Blood Pressure Education Program recommended four changes in lifestyle to help, prevent or manage hypertension, since hypertension is a major modifiable risk factor for CHD. These are weight control, reduced salt intake, increased exercise and moderate alcohol consumption. Diet has a direct and important role in heart disease that goes beyond cholesterol. A diet high in saturated fat increases the risk of heart disease and stroke. Gender linked risk cannot be changed but high blood pressure, elevated cholesterol and smoking can be significantly reduced by life changes. Simple adjustments to diet and exercise have positive effects on both cholesterol and blood pressure. Tobacco use, whether it is smoking or chewing tobacco, increases risk of cardiovascular disease. Passive smoking is also risk factor for CHD. The relationship between smoking and risk for CHD is simple and direct. Incidence of heart attacks and sudden cardiac deaths is directly related to the number of cigarettes smoked on a regular basis. Cigarette smoking is the most preventable cause of coronary heart disease. The Framingham data show that men who smoke have up to 10 times the likelihood of sudden death compared to nonsmoker. Smoking interferes with the oxygen carrying capacity of blood, it

reduces bioelectrical control and finally smoking increases the tendency to platelet aggregation and clot formation. Clots increase the potential for thrombosis and fatal coronary. Russek and Zohman [8] observed emotional strain associated with job responsibility in young coronary patients. There is a positive association between job dissatisfaction and CHD. Karasek's group in Sweden [18] explored the relationship of the kinds of work stresses that may be associated with cardiac pathology. They had given a model which links high work demands with an inability to make decisions. Theorell's prospective study of 6500 middle aged males in Swedish construction industry found dissatisfaction with domestic and working life was predictive of suffering a myocardial infarction during subsequent 2 years. In a study of London transport bus drivers and conductors, results showed that bus drivers had significantly higher incidence of heart disease than bus conductors because of more responsible and stressful nature of their work. The Framingham study showed that men undergo in frequent work promotions sustained an increased chance of developing CHD. A supportive social network and having community ties promote emotional and physical wellbeing. Some studies validate positive relationship between social support and CHD mortality. Studies on marital status have repeatedly shown that the single widowed or divorced have higher CHD mortality rates compared to their counter parts. It was also found that interpersonal relationship and marital dissatisfaction or disagreements were risk factors for CHD.

The association between values and attitudes towards life was studied in cross cultural context in Japanese young men.

It was found that Japanese who maintain their traditional way of life, values and language after their emigration to US, do not have increased rate of CHD. In study of Japanese- American males found that those with the lowest level of social affiliation had double the risk of developing CHD. The rate of CHD mortality increases due to smoking, alcohol and foods rich in fats, less exercise, lack of control over one's working environment, reduced levels of social support, the cumulative life cycle experience of belonging to a social class or nation undergoing rapid urbanization and industrialization.

The main objective of this research was to study the role of lifestyle in development of CHD and hypothesis formulated was patients of coronary heart disease (CHD) would score higher on subscales of lifestyle as compared to matched non-CHD individuals.

This being a study on stress, anxiety, type A behaviour pattern and lifestyle variable of the patients of coronary heart disease (CHD) and their matched normal patients for the present study were selected from cardiac care unit (CCU) of hospitals from Pune city. During the survey for CHD patients 10:1 ratio of male to female was observed. As, there is a physiological cause that men having a greater risk of heart disease than women do, because, the higher levels of high density lipoprotein (HDL) cholesterol, which helps to slough off the more lethal low density lipoprotein (LDL), these higher HDL levels appear to be linked to premenopausal women's level of estrogen. Estrogen diminishes sympathetic nervous system arousal, which may add to protective effect against heart disease seen in women. So in the present study only male CHD patients were selected. Out of 121 male CHD patients admitted in CCU's of various hospitals in Pune, 81 CHD male patients agreed to participate in the present study. In the present study selection of 81 matched normal was done by keeping the patients in view. The patients and normals were matched, one to one on the variables of age, education, occupation, family type and socioeconomic status. These 81 male CHD patients met the inclusionary criteria, which were as follows:

Age: 30–60 years; education: minimum S.S.C. passed; occupation: employed; family type: nuclear family is staying with wife and children, and joint family is staying with wife, children and parent; socioeconomic status: minimum income

Rs 10,000 per annum. The normals were selected after the medical checkup by the physicians who labeled them as normal as they were not suffering from any disease.

Following tools and measures we used for data collection.

Personal data sheet: A personal data sheet comprising 14 items was prepared and was required to be filled in by the patients and normal before the actual administration of psychological scales. The items were designed to get the information about age, education, occupation, family type and socioeconomic status.

Interview schedule: To measure lifestyle in CHD patients and normal individuals, structured interview schedule was prepared on the basis of operational definition of lifestyle. Interview schedule includes four subparts in which questions are formulated beforehand and asked in a set order in a specified manner. The description of interview schedule is given in Appendix A.

Description of the sub-dimensions is given below.

- A. **Health behaviour pattern:** It includes information about sleeping habits, dietary habits, daily exercise, smoking habits. To find out health behaviour pattern three questions were framed to get detailed information about sleeping habits, four questions for dietary habit, four questions for daily exercise, six questions for smoking habits. The coding of the responses is quantified. A five point rating scale, that is, always, often, sometimes, rarely, and never is used to measure the responses of person. Higher the scores on sleeping habits, dietary habits and smoking habits indicates more risky lifestyle whereas lower scores indicate healthy lifestyle. Lower scores on daily exercise indicate healthy lifestyle whereas higher scores indicate more risky lifestyle.
- B. **Social interactions:** It includes the information about social awareness and social life of the person. To get detailed information about social interactions 16 questions were framed. The coding of the responses is quantified. A five point rating scale is used to measure the responses of the person. Higher scores on social interactions indicate healthy lifestyle whereas lower scores indicate more risky lifestyle.
- C. **Intimacy:** It includes the information about family and personal life activities. Intimacy is that quality of being close and affectionate with another person. It can occur with or without sexuality. To get detailed information eight questions were framed. The coding of the responses is quantified. A five point rating scale is used to measure the responses of the person. Higher scores on intimacy indicate healthy lifestyle whereas lower scores indicates more risky lifestyle.
- D. **Locus of control:** It includes information about the individuals own interpretation of personal control over illness and health. Locus of control refers to the belief about location of control of behaviour by the subject. This locus is classified as external and internal. Individuals with external control think that their behaviour is controlled by the external forces like chance, luck, fate, some influential person or external circumstances. Individuals with internal control believe that their behaviour is controlled by the forces which are within themselves and the event is contingent upon their own behaviour. Eleven questions were framed to get detailed information about locus of control related to health and illness aspects. A five point rating scale is used to measure the responses of the person. Higher scores indicate internal locus of control whereas lower scores indicate external locus of control.
- E. **Values:** It includes the information of two values namely money and religion of the person. Values hold a central place in culture, identity and lifestyle of the

individual. Total eight questions were framed to get details about values of person out of which four questions were framed to get details about money and remaining four questions were framed to get details about religious values. A five point rating scale is used to measure the responses of the person. Higher the scores on money and religious value more risky lifestyle whereas lower scores indicate healthy lifestyle. Split half reliability was calculated and it is 0.89.

3. Procedure

A special permission was sought to collect the data of CHD male patients from cardiac care unit (CCU) of Pune city which includes Ruby Hall Clinic, Jahangir Hospital, DinDayal Heart Institute, Dinanath Mangeshkar Hospital, Joshi Hospital, Kashibai Navale Hospital and Sasoon Hospital.

On the initial contact, after noting down residential address of the patients, a formal permission was sought to see them at home after discharge from CCU within 10 days. Special visits were made to see the CHD patients from Khadki, Dapodi, Aund, Pimpri, Chinchwad, Vishrantwadi and Katraj in Pune city to interview and complete the psychological measures. After establishing proper rapport and explaining the objectives and purpose of the study the patients of CHD co-operated whole heartedly. All the scales and interview schedule used for this study were given individually to each patient at his residence. All the patients were assured that information given by them would be kept confidential and utilized solely for research purpose only. They were also instructed to ask for clarification of any doubtful item, specific instructions for each scale were printed at the beginning of the scale. No time limit was imposed for the completion of the scales.

Immediately within a week the sample of Non-CHD individuals were selected after medical checkup by the physician who labeled them as normal as they were not suffering from any disease. The patients and Non-CHD individuals were matched one to one on each of the variables of age, education, occupation, family type and socioeconomic status. A matched normal was assessed by psychological tests and was interviewed personally by visiting their houses. Initially it was proposed to take 75 numbers of data for both CHD patients and matched normal. But effective rapport and co-operation by CHD patients and matched non-CHD individuals the sample size was increased to 85, out of which four were rejected because the questionnaires were incomplete. In the present study the no of CHD patients were 81 and matched Non-CHD individuals were 81. So the total sample size was 162.

3.1 Analysis of data

Data were analyzed with the help of statistical techniques like descriptive statistics, and 't' test. However, a few cases were explained to understand the qualitative analysis.

4. Qualitative analysis

Analysis of personal data sheet was carried out. A personal data sheet comprising 14 items was prepared. The information in the personal data sheet was sought in order to match patients of CHD and non-CHD individuals on age, education, type of family and socioeconomic status.

4.1 Demographic characteristics of the sample

Table 1 and **Figure 1** show age group wise sample distribution. Fifty percent respondents belonged to the age group of 40–50 years. Similarly 14.8% belonged to 30–40 years of age, and 34.6% belonged to 50–60 years of age.

Table 2 and **Figure 2** show that there are 53% participants who are having PG education. There are 35.8% participants who were having graduation and remaining 11.2% participants who had completed H.S.C or diploma.

Table 3 and **Figure 3** show that 71.6% participants belonged to the nuclear family. Similarly 28.4% belonged to joint family.

Table 4 and **Figure 4** show socioeconomic status wise sample distribution. 4.9% respondents belonged to the 1,00,000–3,00,000 annual income group. 38.4% respondents belonged to the 3,00,000–6,00,000 annual income group. 35.8% respondents belonged to the 6,00,000–9,00,000 annual income group and similarly 20.9% respondents belonged to 9,00,000 and above annual income group.

Two case studies have been given to understand experiences of CHD male patients in greater detail. As mentioned earlier, a lifestyle was referred as a general behaviour pattern of an individual which includes health behaviour pattern, job involvement and work style, social interactions, intimacy, locus of control and values. Health behaviour pattern is a set of habits includes sleeping habits, dietary habits, daily exercise, smoking habit and physical and mental health.

4.1.1 Case study 1

A CHD patient of 37 years old working as a senior manager from last 2 years. He represents a nuclear family having a wife and a daughter. He had no family history of any disease. He is non-vegetarian and most of the time had outside eatables. He is a chain smoker. He is workaholic, carrier and money oriented and no time to spend with his family. A matched non-CHD individual also non vegetarian but most of time take his meal with family and rarely had outside eatables. He does not have any bad habit like smoking, chewing tobacco, etc. He had perfect compartment of work place and for family. He spends his weekends with picnic, get-together with friends, His priority to people and money.

Age group (years)	CHD patients	Non-CHD individuals
30–40	12	12
40–50	41	41
50–60	28	28

Table 1.
Sample distribution according to age (N = 162).

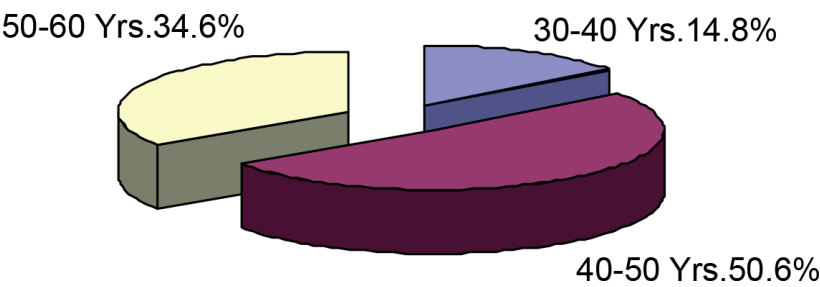


Figure 1.
Sample distribution according to age.

Education	CHD patients	Non-CHD individuals
H.S.C./Diploma	09	09
Graduation	43	43
Postgraduation	29	29

Table 2.
Sample distribution according to education (N = 162).

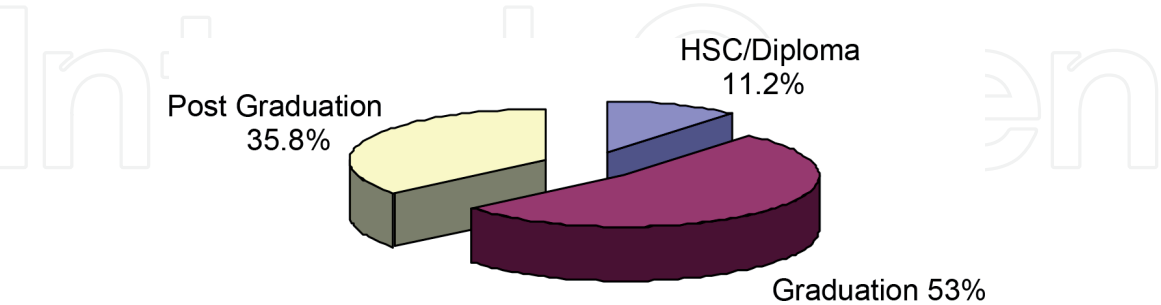


Figure 2.
Sample distribution according to education.

	CHD patients	Non-CHD individuals
Joint family	23	23
Nuclear family	58	58

Table 3.
Sample distribution according to family type (N = 162).

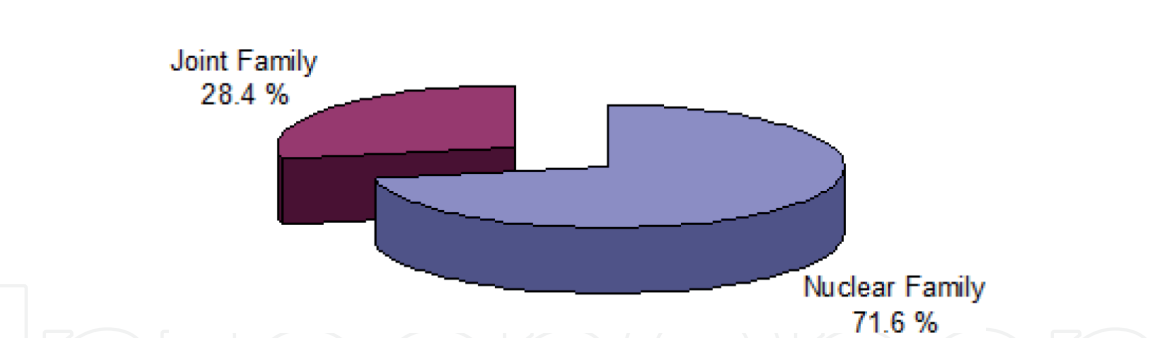


Figure 3.
Sample distribution according to family type.

4.1.2 Case study 2

A CHD patient of 45 years working as a senior lecturer from last 14 years. He represents a nuclear family of a wife and two daughters. He had no family history of any disease. He is vegetarian, not spend a single minute for exercise. He always chews tobacco. He is very competitive and always feels unhappy about his life and feels unlucky. He is religious and always depends on god. “I am very unlucky.” “Asel debauch manat tar milel” such type of dialog often with him. He does not spend money, always worried about dowry and marriage of daughters. A matched Non-CHD individual is vegetarian as well as non-vegetarian. He daily takes a walk for half an hour. He is happy go lucky enjoy all the moments and takes responsibility of his work. The qualitative description of the two representative cases of CHD and non-CHD groups clearly demonstrates the noticeable differences in lifestyle factors. Results have been now discussed quantitatively.

Annual income	CHD patients	Non-CHD individuals
1,00,000–3,00,000	04	04
3,00,000–6,00,000	31	31
6,00,000–9,00,000	29	29
9,00,000 & above	17	17

Table 4.
Sample distribution according to socio-economic status (N = 162).

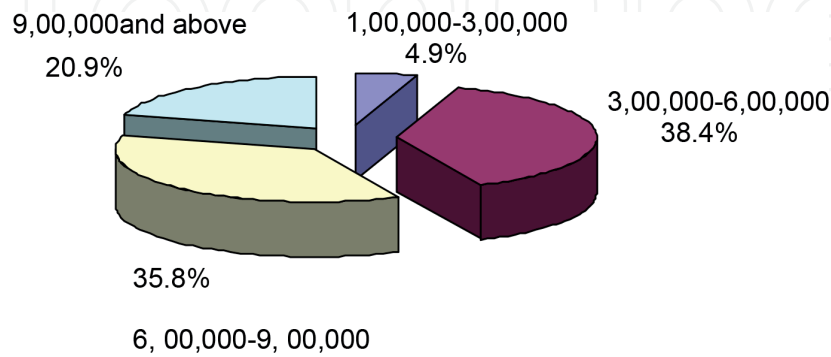


Figure 4.
Socio-economic status and percentage of people.

5. Quantitative analysis

5.1 Lifestyle among patients of CHD and matched non-CHD individuals

The results of present study indicate that the mean differences were statistically significant for subscales of lifestyle.

With reference to **Table 5**, CHD and lifestyle risk factors showed a significant positive association with sleeping habits, dietary habits, exercise and Smoking respectively. It was also appeared that there was a positive link between poor social interactions, poor intimacy, more external locus of control and more money and religious values. So, the hypothesis, “Patients of Coronary Heart Disease (CHD) would score higher on subscales of lifestyle as compared to matched Non-CHD individuals” is accepted.

The results of the present study support the findings of the earlier studies in association with lifestyle and risk of coronary heart disease (CHD). Gupta and Gupta [18] carried out a study on Indian male. In the present study, it was found that lifestyle risk factors like diet, smoking habits plays an important role in development of CHD. Orth-Gomer et al. [20] have demonstrated that low social support and poor social integration predicted incidence of major coronary events. The results revealed that the patients of CHD showed significant differences on locus of control, it indicates that the patients were tilted towards external locus of control due to which they experienced the high stress on the other hand the matched non-CHD individuals due to their internal locus of control experienced less amount of stress and remain healthy [21]. The obtained results were discussed in the light of violation of assumption and compared with the results of earlier studies with necessary caution. A positive family history of premature coronary heart disease is recognized as an independent predictor for cardiovascular mortality in the first degree relatives. This will enable public health and behavioral epidemiologists to plan and target appropriate and effective preventive lifestyle

Lifestyle	CHD patients		Non-CHD individuals		t ratio
	Mean	SD	Mean	SD	
Sleeping habit	12.02	1.71	5.40	1.35	27.01**
Dietary habit	22.44	2.20	9.41	2.16	37.10**
Daily exercise	9.42	1.49	5.16	1.20	19.90**
Smoking habit	26.88	4.50	13.04	2.14	24.98**
Health	12.40	2.19	7.64	1.77	15.15**
Job style	65.30	10.53	33.90	5.66	23.61**
Social interactions	62.74	7.92	26.35	3.88	37.09**
Intimacy	21.75	2.92	12.31	2.17	23.32**
Locus of control	43.68	4.94	18.05	4.42	31.43**
Values	21.89	4.08	13.14	3.36	14.88**

***P* < 0.01.

Table 5.
Means, SDs, and ‘t’ ratios on lifestyle for CHD patients and matched non-CHD individuals.

techniques to adults. Therefore, its primary prevention is an important factor. Several studies have shown that primary prevention of coronary heart disease by family life education in the community has better benefits compared to secondary prevention for cardiovascular mortality as well as morbidity. Prevention programmers should have a multi-level focus, including individual, family and other social institutions. It is also important to identify subgroups for intervention, so that necessary steps at earlier level itself can be taken for the prevention of lifestyle diseases like coronary heart disease.

5.2 Limitations

CHD is a life time disorder; it is difficult to detect the sufferer as this illness does not reveal any overt causal symptoms. Moreover to get the authentic data, it was highly essential to consult the medical practitioners or cardiologists. Therefore, the researcher had to fully depend upon on the data which was available only in hospitals and clinics.

1. As mentioned in literature, the incidence of CHD is a global health problem which is given only medical attention, the psychological part of it is almost neglected. Though there are many psychological dimensions to it, only lifestyle has been studied in the present research, the other dimensions also needed to be studied.
2. The research is based on the data from Pune only.
3. This study was limited to male population only.

5.3 Implications

Healthy behaviour patterns like sufficient sleep, healthy diet, regular exercise, more social interactions, intimacy, and internal locus of control have beneficial effects among the non-CHD individuals. It is therefore reasonable to promote such a healthy lifestyle to the patients of CHD.

5.4 Suggestions

The following suggestions are made for future research:

1. Further research in this area may examine effects of emotions and coping behaviour in the development of coronary heart disease.
2. A comparison could be made on urban and rural population to find out development of coronary heart disease.
3. A similar study may be conducted on a sample of female.
4. The further research in coronary heart disease may use multidimensional model encompassing both environmental variables (stressors) and social variables.

Appendix A

A. INTERVIEW SCHEDULE

A. Health Behaviour Pattern

i. Sleeping Habits

1. Daily hrs. of sleep: Sleeping Time: Getting Time:

2. Are you sleeping well? Yes/No.

Always/Often/Sometimes/Rarely/Never

If No, Why?

3. Do you sleep at daytime? Yes/No.

Always/Often/Sometimes/Rarely/Never

ii. Dietary Habits

1. Are you veg/non veg/mixed?

If nonveg, How many times in a week?

2. Are you eating well? Yes/No

Always/Often/Sometimes/Rarely/Never

If No, Why?

3. Do you take your meal alone/with family/with friends? Yes/No

Always/Often/Sometimes/Rarely/Never

4. Do you have outside eatables? Yes/No

Always/Often/Sometimes/Rarely/Never

iii. Daily Exercise

1. Are you doing daily exercise? Yes/No

Always/Often/Sometimes/Rarely/Never

2. Lonely/With friends?

3. Daily how much time you spend on exercise?

More than one hour/Less than one hour

4. Which type of exercise you do?

iv. Smoking Habits

1. Do you smoke? Yes/No

Always/Often/Sometimes/Rarely/Never

2. How many times in a day?

3. How many times in night?

4. Is their compulsive smoking?

5. Do you chew tobacco? Yes/No

6. How many times in a day?

v. Health

1. Does your family have a history of illness?

2. Before this illness are you taking care of your health? Yes/No

3. Before this illness have you suffered from any minor/major illness? Yes/No

If Yes, When?

Which drugs you had?

Intensity of illness:

4. From when, you are suffering from this illness?

5. Does your illness interfere with your life a great deal? Yes/No

Always/Often/Sometimes/Rarely/Never

B. JOB INVOLVEMENT AND WORK STYLE

1. Is your present job as per your ability? Yes/No

If No, Why?

2. Is your present job as per your experience? Yes/No

If No, Why?

3. Do you have most risky work?

Always/Often/Sometimes/Rarely/Never

4. Are you doing extra work than your seniors?

Always/Often/Sometimes/Rarely/Never

5. Is your work challenging?

Always/Often/Sometimes/Rarely/Never

6. Are you happy with your promotion?

Very much/Quite much/Not much/Very little/Never

7. At what extent are working conditions in your organization?

Satisfactory/Unsatisfactory/Can't Say.

8. Is there high team spirit in your work group?

Yes/No/Can't Say.

9. Generally my speed of work compared to others is fast.

Strongly Disagree/Disagree/Undecided/Agree/Strongly Agree

10. I experienced inability to perform my job.

Strongly Disagree/Disagree/Undecided/Agree/Strongly Agree

11. I get support from subordinates for my work.

Strongly Disagree/Disagree/Undecided/Agree/Strongly Agree

12. I get support from my seniors for my work.

Strongly Disagree/Disagree/Undecided/Agree/Strongly Agree

13. I think my job is reasonably secure.

Strongly Disagree/Disagree/Undecided/Agree/Strongly Agree

14. I do not feel burdened in my work.

Strongly agree/Agree/Undecided/Disagree/Strongly Disagree

15. I plan my work in proper way.

Always/Often/Sometimes/Rarely/Never

16. I do not depend on others for my own work.

Always/Often/Sometimes/Rarely/Never

17. I involve myself in the work.

Always/Often/Sometimes/Rarely/Never

18. Are you satisfied with welfare facilities (medical etc.) provided by the organization?

Always/Often/Sometimes/Rarely/Never

19. If I get similar job in any other organization, I would like to quit this job.

Strongly Disagree/Disagree/Undecided/Agree/Strongly Agree

20. It is difficult for me to seek balance between my family and career

Always/Often/Sometimes/Rarely/Never

21. When were you promoted last time?

22. Have you liked promotion?

Always/Often/Sometimes/Rarely/Never

C. SOCIAL INTERACTIONS

1. How many friends do you have?

How many intimate friends?

2. Do you feel that your friends understand you?

Always/Often/Sometimes/Rarely/Never

3. Your social interactions are----

Very much/Quite much/Not much/Very little/Never

4. Is your wife supportive?

Very much/Quite much/Not much/Very little/Never

5. I am happy with my wife.

Strongly Agree/Agree/Undecided/Disagree/Strongly Disagree

6. I am happy with my family.

Strongly Agree/Agree/Undecided/Disagree/Strongly Disagree

7. I have happiness about my job.

Strongly Agree/Agree/Undecided/Disagree/Strongly Disagree

8. I have happiness about my physical health.

Strongly Agree/Agree/Undecided/Disagree/Strongly Disagree

9. I have happiness about my mental health.

Strongly Agree/Agree/Undecided/Disagree/Strongly Disagree

10. I have difficulty in managing my time.

Always/Often/Sometimes/Rarely/Never

11. I spare time for my hobbies.

Always/Often/Sometimes/Rarely/Never

12. Do you feel angry with some people? Yes/No

If yes, Why?

13. Do you feel awkward with some people? Yes/No

If yes, Why?

14. Social co-operation helps me in getting success.

Always/Often/Sometimes/Rarely/Never

15. Do you more irritable towards other people? Yes/No

Never/Rarely/Sometimes/Often/Always

16. Do you lose your patience with other people? Yes/No

Never/Rarely/Sometimes/Often/Always

D. INITAMACY

1. Do you and your partner have friends in common?

None/Few/Many

2. Do you think that you understand your partner?

Yes, always/Sometimes/Rarely/Never

3. Do you feel that your partner understands you?

Yes, always/Sometimes/Rarely/Never

4. Do you visit friends and relatives together?

Always/Occasionally/Rarely/Never

5. Do you engage in outside hobbies and interests together?

Always/Occasionally/Rarely/Never

6. Do you share with your partner the responsibility of looking after your child/children?

Always/Occasionally/Rarely/Never

7. Do you confide in your partner about your personal problems?

Always/Occasionally/Rarely/Never

8. Do you feel that your partner depends on you rather than her relatives for advice about family matters. Yes/No.

If yes, Always/Occasionally/Rarely/Never

E. LOCUS OF CONTROL

1. Illness is a matter of bad luck.

Strongly Agree/Agree/Undecided/Disagree/Strongly Disagree

2. If it is in your fate, you cannot avoid sickness.

Strongly Agree/Agree/Undecided/Disagree/Strongly Disagree

3. Keeping good health is a matter of good luck.

Strongly Agree/Agree/Undecided/Disagree/Strongly Disagree

4. I think I can control my illness.

Strongly Agree/Agree/Undecided/Disagree/Strongly Disagree

5. I do not have detail information about my illness.

Strongly Agree/Agree/Undecided/Disagree/Strongly Disagree

6. I think one can maintain good health by paying attention to nutrition, exercise etc.

Strongly Agree/Agree/Undecided/Disagree/Strongly Disagree

7. God helps us to keep healthy.

Strongly Agree/Agree/Undecided/Disagree/Strongly Disagree

8. People can help each other in dealing with many diseases.

Strongly Agree/Agree/Undecided/Disagree/Strongly Disagree

9. There is no use worrying about illness, it will get cured when the time comes.

Strongly Agree/Agree/Undecided/Disagree/Strongly Disagree

10. I know the steps to get out of this illness.

Strongly Agree/Agree/Undecided/Disagree/Strongly Disagree

11. Good doctors can cure most illness.

Strongly Disagree/Disagree/Undecided/Agree/Strongly Agree

Whether you feel successful/unsuccessful in your life, give at least five reasons:

(F) VALUES

1. Give your priority to values given below.

Money, People, Career, Religion.

2. Having a family is more important to me than having a career and money.

Strongly Disagree/Disagree/Undecided/Agree/Strongly Agree

3. Money should be saved for old age.

Agree/Disagree/Can't say

4. Earning money only through labour and honestly appears decent.

Strongly Disagree/Disagree/Undecided/Agree/Strongly Agree

5. Participation in social ceremonies is useless. Yes/No

If yes, Always/Occasionally/Rarely/Never

6. Man should behave according to religious beliefs?

Strongly Agree/Agree/Undecided/Disagree/Strongly Disagree

7. To what extent are you religious?

Very much Quite/Much Quite/Not much/Very little/Never

8. Keeping fast is necessary on main religious occasions.

Strongly Agree/Agree/Undecided/Disagree/Strongly Disagree

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Author details

Sushama J. Bhosale
Mamasaheb Mohol College, University of Pune, India

*Address all correspondence to: sushama952004@yahoo.co.in

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References

- [1] Barker DJ, Cox V, Kumaran K, Osmond C. Fetal growth and coronary heart disease in South India. *Lancet*. 1996;**348**(9037):1254-1255
- [2] Deepa R, Pradeep R, Mohan V. Role of psychological stress in cardiovascular disease. *International Journal of Diabetes in Developing Countries*. 2001;**21**:121-124
- [3] Stephan J, David M, Christopher C. Stress and coronary heart disease. *MJA*. 2002;**178**(6):272-276
- [4] WHO Reports. APA Press Release. Public Affairs Office; Pam Willnez, 2002. 336-5707
- [5] Cohen J. The global burden of disease study: A useful projection of future global health. *Journal of Public Health Medicine*. 2000;**22**:518-525
- [6] Rice PL. *Health Psychology*. India: Brooks/Cole Publishing Company; 1999
- [7] Williams PT. Health effects resulting from diet and exercise versus those from body fat loss. *Medicine and Science in Sports and Exercise*. 2001;**33**:S611-S621
- [8] Russek HI, Zohman BL. Relative significance of heredity, diet and occupational stress in coronary heart disease of young adults. *American Journal of the Medical Sciences*. 1958;**235**:266-275
- [9] Taylor SE. *Health Psychology*. 4th ed. New York: McGraw-Hill; 1999
- [10] The Vestfold Heart Care Study Group. Influence on lifestyle measures and five year coronary risk by a comprehensive lifestyle intervention programme in patients with coronary heart disease. *European Journal of Cardiovascular Prevention and Rehabilitation*. 2003;**10**(6):429-437
- [11] World Health Organization. *World Health Report: Reducing Risks, Promoting Healthy Life*. Geneva: WHO; 2008
- [12] Reddy KS, Yusuf S. Emerging epidemic of CVD in the developing countries. *Circulation*. 1998;**97**:596-601
- [13] Dholapuria R, Raja S, Gupta CK, Chahar RB, Gupta R, Purohit VP. Atherosclerotic risk factors in adolescents. *Indian Journal of Pediatrics*. 2007;**74**:823
- [14] Rissam HS, Kishore S, Trehan N. Coronary artery disease in young Indians-the missing link. *Journal of Indian Academy of Clinical Medicine*. 2001;**2**:128-132
- [15] Bhishop GD, Robinson G. Anger harassment and cardiovascular reactivity among Chinese and Indian men in Singapore. *Psychosomatic Medicine*. 2000;**62**:684-692
- [16] Scheiderman N, Michael H, Antoni Patrice G, Ironson G. *Health Psychology: Psychosocial and biobehavioral aspects of chronic disease management*. Annual Review of Psychology. 2001
- [17] Ahmad N, Bhopal R. Is coronary heart disease rising in India? A systematic review based on ECG defined coronary heart disease. *Heart*. 2005;**91**:719-725
- [18] Gupta R, Gupta VP. Meta-analysis of coronary heart disease prevalence in India. *Indian Heart Journal*. 1996;**48**:241-245
- [19] Theorell T, Karasek RA, Baker D, Marxer F, Ahlbom A. Job decision latitude, job demands and cardiovascular disease: A prospective study of Swedish men.

American Journal of Public Health.
2005;**71**:694-705

[20] Orth-Gomer K, Rosengren A,
Wilhelmsen L. Lack of social support
and incidence of Coronary Heart
Disease in middle aged Swedish men.
1993

[21] Younger JB. A theory of mastery.
Advances in Nursing Science.
1991;**14**:76-89