

Abstract

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3	Title of the thesis:	A Retrospective study on Cardiovascular disease “at risk” in early adulthood: Measuring by KAP and their Nutritional management
4	Degree to which it is submitted:	Doctor of Philosophy
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Introduction

The growing incidences and presence of CVD in both urban and rural area among male and females has been designated as the leading cause of mortality and morbidity, representing a total of 31% of all global deaths (**WHO Fact sheet, 2015**). Earlier the concept of CVD being a rich man’s disease exist no more as the health transition is occurring more rapidly in low and middle – income countries where the burden is getting more common among the illiterate and low socioeconomic subjects.

Cardiac diseases have reached epidemic magnitude in various developing and underdeveloped countries thus restricting the fact that it is limited to geographical area or by age, sex, or socioeconomic boundaries. The Risk of developing cardiovascular diseases in early adulthood is very high, Clearly, the development of cardiovascular disease in adulthood is influenced by growth very early in life, even prior to birth. Among young adult the levels of modifiable risk factors predict the odds of developing heart disease in middle age more than the levels of risk factors measured in middle age, (**National Heart, Lung, and Blood Institute, 2007**). Thus, knowledge can help alone in accurately understanding their risk factors and improving their attitude, practices and perception towards heart disease because many adults may not see CVD as a hazard to their life and continue to exploit their risk

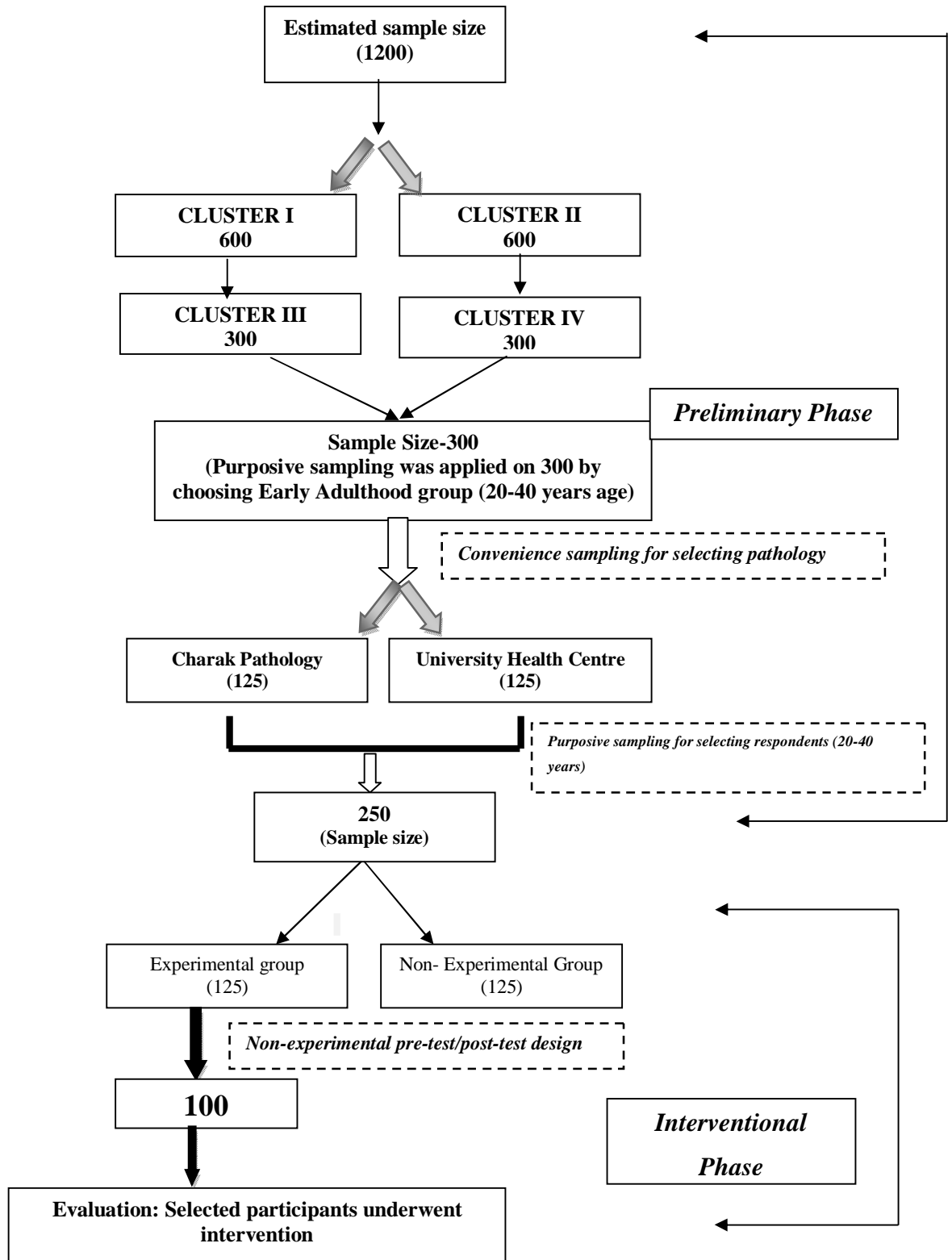
behaviours because of unawareness but they may be at the edge of developing any disorder and intervening them through use of technology can prove to be a step ahead in Health behaviour modification. As early adults secure the maximum position in India, terming them as the productive people their health stands of utmost importance and hence there is a critical need to increase their awareness, knowledge and perception about CVD in this adult population. This study would help to understand the baseline KAP of individuals and further enhance their awareness towards CVD, thus improving their health behaviours. Thus, the study was undertaken with the following objectives:

- a) To know personal attributes and lifestyle variables in early adulthood.
- b) To estimate risk of CVD by using perception of risk of heart disease scale.
- c) To understand the baseline knowledge, attitude and practice of the study subjects by using an inventory.
- d) To intervene an experimental group for nutritional management and behaviourally oriented counseling by using Prohealth website
- e) To evaluate the effectiveness of intervention and associate with pre and post phase of the study.
- f) To correlate various factors with reference to CVD before and after the intervention

Material and Methods

The present study is a Non- experimental pre- test/ post- design. It constitutes of three phases of research work (viz; Preliminary phase, Intervention phase, Post-intervention phase). To meet out the 250 sample size purposive sampling was applied. Further, convenience sampling for selecting the study area (Charak pathology and University Health Centre). The equal division of sample size (125) was done in each selected area with considering early adulthood group (20-40 years) as study subject for the period of 6 months (Dec 2014- May 2015) through a website (www.prohealthcvd.in).

The study conducted was a Non-experimental pre-test/post test Design in which, evaluators survey the intervention group before and after the intervention. While evaluators may observe changes in outcome indicators among the intervention participants, they cannot attribute all these changes to the intervention alone using this design because there is no comparison group



The selected subjects underwent behavioral counseling to reach out target goals. The tools are given below.

Preliminary phase,	Intervention phase	Post- intervention phase
1. Pre- designed and pre-tested questionnaire 2. Perception of risk of Heart Disease scale 3. 20-item evaluation sheet	Website (www.prohealthcvd.in)	20-item evaluation sheet

Results

- It can be concluded that more than half of the respondents belonged to the age group of 20-25 years of age.
- Three- fourth of the study subjects were of Hindu category.
- More than half of the respondents were females. While, majority of them were single.
- Less than half of the respondents suffered from certain morbidity conditions.
- Maximum individuals continued using IT devices and use of internet was highly prevalent among respondents.
- Nearly fifty percent individuals were unemployed belong to middle income group and more than half of the respondents resided in nuclear families.
- The diet pattern of the study subjects was predominantly milk, vegetables, fruits and pulses.
- Maximum respondents had suffered from certain morbidity condition in past but of which nearly three fourth neglected any type of treatment and also did not prefer taking any modified diet during illness such as fatty liver, hypertension etc.
- Family history of having a disease was found among less than one third participants for high cholesterol, hypertension, heart disease and diabetes respectively, but also a good number of people were not sure of any such condition thus placing them at a risk.

- The WHR was found high among one fifth respondents among males, while one sixth among females.
- One fourth respondents were overweight, while less than ten percent were in obese class 1 category and in underweight category posing them at jeopardy of CVD.
- Lipid profiles estimated a risk total of one sixth respondents in high cholesterol category, less than fifty percent had high triglycerides levels and LDL levels, three fourth had low HDL levels, and less than fifty percent in VLDL category. Low HDL poses a greater threat to an individual's body.
- The dietary pattern of respondents revealed that more than fifty percent were vegetarian, had irregular meal timings, and used flour without choker, however more than three fourth respondents consumed iodised salt, had no addiction and spent less than 17.88 minutes on exercise. More than one third individuals preferred refined oil.
- More than fifty percent respondents perceived themselves at risk of heart disease, around twenty percent perceived themselves at dread risk and unknown risk.
- Less than three fourth respondents knowledge on heart disease associated personal attributes was very low, similarly knowledge on risk factors regarding heart disease was low among less than three-fourth respondents, around one third individuals had a negative attitude towards CVD associated attitude and more than eighty percent had poor heart associated practices.
- After post intervention it was found that the level of knowledge changed among more than fifty percent respondents after intervention, similarly a change in attitude was observed among more than fifty percent respondents and practices improved among around more than one- third individuals. A total mean change from 8.41 ± 2.94 to 15.69 ± 3.27 was observed.
- In our study, it was quite evident that the maximum change was observed in the age group of 30-35 years (more than ninety percent)

having Mean \pm SD value as 13.92 ± 4.17 , with the least being observed from 25-30 years of age (more than seventy percent), it was observed that more than three-fourth individuals who suffered from no morbidity state accepted the change most (15.76 ± 3.21) in contrast to around those 70% individuals who suffered from some ailment like diabetes (15.75 ± 5.52).

- it can be concluded that majority of self – employed individual adapted the habits through the interventional process (15 ± 3.6), the total change was observed among more than three- fourth respondents, the least was found among the housewives, pertaining to the fact that they are more involved in their family chores and pay less attention towards their health. Mostly HIG individuals adapted the changes, residing in joint families and not having any family history of disease.
- In conclusion the present study identifies that CVD knowledge, attitude and practices is quite low among respondents. Though, in certain areas such as risk factors, controllable RFs the knowledge was sufficient enough but not appropriate enough to represent a whole condition such as CVD.
- Like many previous studies have suggested, but this study suggests that a gap exist regarding CVD among early adults such as age, monthly income and gender associated practices were found to be non- significant. Subsequently it can also be commented that eating habits among respondents were non- significant to quite extent, a change in eating habits is must as it directly affects the overall health.
- Furthermore the present study identifies that technology based intervention can be helpful and has a significant overall change in the level of awareness towards certain conditions such as heart diseases.

SIGNIFICANT RISK FACTORS OF THE STUDY

