

Impact of literacy in women's cardiovascular health in mixed urban population of Pakistan

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Abstract

Learning has been of dominant consequence to the progress of human civilization. In Pakistan, international pledge to worldwide education was initially established back in 1984. General statement of Human rights in Pakistan mainly in mixed urban areas for women are mostly positioned at the lowermost end of the current classification in contrast to their male equivalents. Habitually, it is expected that women are inadequate to become family leader, men are the wage-earner of the household. In the condition like that, education can help in refining the position of women and retaining them on an equivalent place with male in the same society. Not only that, this one too surges women's capability to protect work in the official working area. The cardiovascular health risk factors are poorly managed and most of the cases are not reported. The aim of this research was to Identify the significance of education in women's cardiovascular health in mixed urban society of Pakistan, here portion of the women are living under poor conditions [1]. And, to assess the awareness of cardiovascular health risk factors and to determine life-styles of the common women in contrast to their literacy level. Urban mixed population of Karachi (Malir district and its surroundings) was selected. The area has population of 2008901 from which 934491 are female [2]. 200 individual females participated in the study, and sample were ≥ 18 years age all female. Information about demographic, body weight, height, life style, medical and cardiac history were taken [2]. Questionnaire was designed to estimate life-styles and awareness in face to face meetings. The data showed very low level of education, 62% of them have no education at all, while 19% had secondary level of education, 17% had graduate degrees and only 2% were with post graduate education. Most had no job and 68% were housewives. Most of them were obese and physically inactive, total 49% women were not happy with their health status, 40% of women had positive family history of elevated blood pressure and diabetes. Sample showed elevated blood pressure 37%, diabetes 28% and other cardiovascular health risk factors. 48% of women were under extreme mental stress, 38% were under extending medicine therapy out of which only 24% knew their medicine its usage and complications. The awareness regarding consequence of cardiovascular risk factors and their role in origin of cardiovascular disease was absent in the community at large. Food and its connection to coronary heart disease showed majority were unaware.

Keywords: cardiovascular risk factors; cardiovascular health; literacy; developing country; blood pressure; cholesterol; diet; obesity; urban mixed population of karachi.

Introduction

In this country cardiovascular health risk factors entirely and specifically in women are ignored. No extraordinary specific studies are led to assess this rising issue. Common studies about cardiovascular disease has been conducted in 1965, 1973 and 2008 which showed diverse data of cardiovascular health risk factors and disease prevalence in urban mixed population of Pakistan generally and Karachi specially. During literature review, I seen no further extraordinary studies have been undertaken. The migration of rural population to urban areas like Karachi has sustained over the past decades. As Pakistan's population is growing rapid and the same time increase in emerging lower-middle class groups. Karachi, major industrial city and financial hub of Pakistan, population of Karachi has been increased from 7 million in 1987 to well around 14.9 million as per 2017 Census [2]. The aim of this research was to identify the significance of education in women's cardiovascular health in mixed

urban society of Pakistan. Other objectives are to analyses the life-style in relationship to cardiovascular health risk factors in this community.

Objectives of the Study

This research report will expose the education's impact on the women's cardiovascular health and the risks factors causing cardiovascular disease, to find out how education in general and specially on proper diet/nutrition, weight control, stress management, proper treatment and management of healthy life-style can reduce cardiovascular health risk factors.

To determine if women's education impacts cardiovascular health and related risk factors To determine if women's life-style predispose to cardiovascular disease.

To assess the impact of prolonged unhealthy diet on cardiovascular health of women

To assess the impact of uncontrolled blood pressure, high blood cholesterol and diabetes on cardiovascular health of women.

To assess if stress is a risk factor for cardiovascular disease among women with low literacy level To measure the existence of unrecognized risk factors in relation to women’s education

Methodology

Sample selection: I recruited a representative sample (n = 200; 100% participation rate) of adult (≥18 years) females residing in mixed urban area of Karachi, Sindh, Pakistan. Info related to level of literacy, general condition and cardiovascular health risk factors were collected through a questionnaire, developed between Januarys to March 2019.

Type of research: This is a Qualitative research study, employed a cross-sectional design, all ethical approvals were obtained; informed written consent was taken from participants individually.

Research Instruments: The study consent and questionnaires were printed in English language (Translator provided in case of other languages). The assessment was then pretested in a pilot study and finalized after necessary amendments. The questionnaire made simple due to the low literacy rates among the women of selected community, all interviews were conducted in English, Sindhi, Urdu or Pashto languages and interview-led by myself, We collected data including demographic

characteristics, general level of literacy, lifestyle risk factors including; alcohol drinking, physical activity, type of food consumption and heart health check-ups, Body weight and height measurements were completed with the participant wearing light clothing without shoes and standing motionless with weight and height scale (Seca703, Productnumber7031321993 SECA Hamburg, Germany). World Health Organization guidelines were used to categorize underweight, normal or overweight and obese.

Research Execution: Between January and March, 2019. Total of 200 women were questioned, the sample size of this research report was founded on the necessity to explore education and its impact on cardiovascular health risk factors among women. I predicted a sample size of 200 to be acceptable to address the primary research question and most of the relevant research questions. Out of the 200 eligible participants, 200 (100%) participated in the study.

Results

Demographic: Congestion in the families were present, this study indicates approx. 1.5 families living in a house, the structure of the populace was an cultural mixture mostly were recent migrants to Karachi from anterior Sindh, NWFP and other provinces.

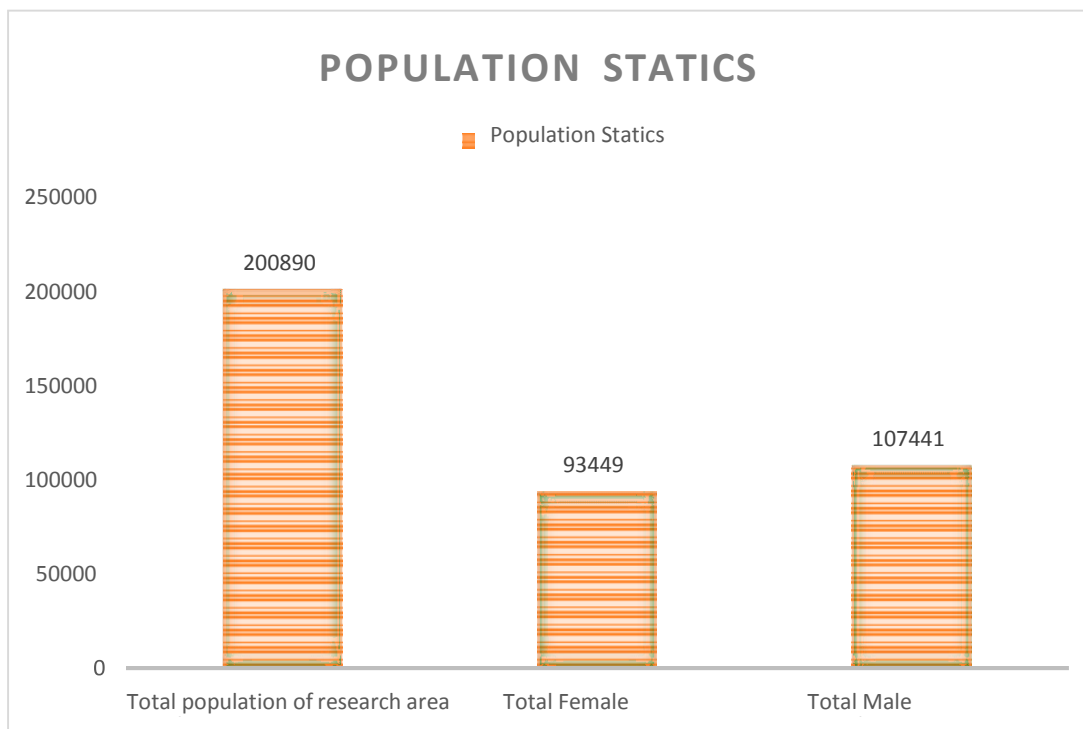


Chart Number: 1: Research area population statics

Education: Importance of women’s education, generally education structure is one of the vital aspects of the social structure as it acts an organization, a purpose and progression. Our project provides positive evidence that education is acting significant role in women’s life and straightforward impacts their cardiovascular health. Education’s role in their life is being debated in subsequent segments. Not only for personal information, but also a complete plan for growth and transformation of women’s cardiovascular health status. The acknowledgement of this statistic has shaped attentiveness on the necessity to emphasis upon literacy and basic education plan. Women’s education is so intimately linked with the other aspects of human growth that to make it possible it

requires a vital alteration on variety of other fronts, like, women’s general health, childhood care, essential nutrition, water and hygiene, social enabling, and many other forms of misuse to the non-violent resolution of struggles (Mishra, 2005).

Cardiovascular Health risk factors: Women aged 40 and above are reported as a higher percentage of cardiovascular health risk factors 31%. 28% of participants were known cases of diabetes, while big number, 37% were known case of high blood pressure. While 38% were on prolong medication use due to various diseases including raised blood pressure and diabetes. Family history of cardiovascular health risk factors were

39.5%, smoking was less famous due to cultural norms of community, only 20% of the

participants were smoking. Unhealthy food was another risk factors of cardiovascular health risk factors, almost 46 % of the population eating unhealthy food, it included unhygienic cooking oils, unhygienic meat and meat products and roadside junk food. Level of obesity was higher, this research showed only 38% of the population of Malir district had healthy weight (BMI <18.5 to 24.9 kg/m²), while 31% were overweight (BMI 25 to 29.9 kg/m²)and 22% had class one obesity (BMI 30 to 34.9 kg/m²), 04% were in class two obesity (BMI 35 to 39.9 kg/m²) and 1% were in class three obesity (BMI >40 kg/m²). Due to poor nutrition around 4% women were underweight (BMI <18.5 kg/m²). Physical exercise is very rare for the women of Malir district, only 22% women were doing physical exercise.

Education for cardiovascular health risk factors: Responsiveness of cardiovascular health risk factors was approximately 51% in all age

women, most of women agreed to question that education impacts cardiovascular health and its risk factors are a major problem for women in development. Majority 38% women think that cardiovascular risk factors cannot be prevented. Education is one of the major problem of this community, 62% of them have no education at all while 19% were matriculate, 17% had graduate degrees and only 2% were with post graduate education. Due to this lack of education, lot of women thinks unfortunate events are cause of cardiovascular risk factors or decondition, 62% women. Consulting with doctor and blood pressure management was not common in this community, only 41% women were visiting doctor. The question regarding smoking and cardiovascular health risk-factors showed that less than 20% were smoking, and most of them were not sure of the linkage between smoking and cardiovascular risk -actors. The answer to the question about high blood pressure showed 37% were known case of high blood pressure, 51% of women think raised blood pressure is a cardiovascular risk factor, 42% of women replied yes to the question that fatty food can cause cardiovascular risk factors.

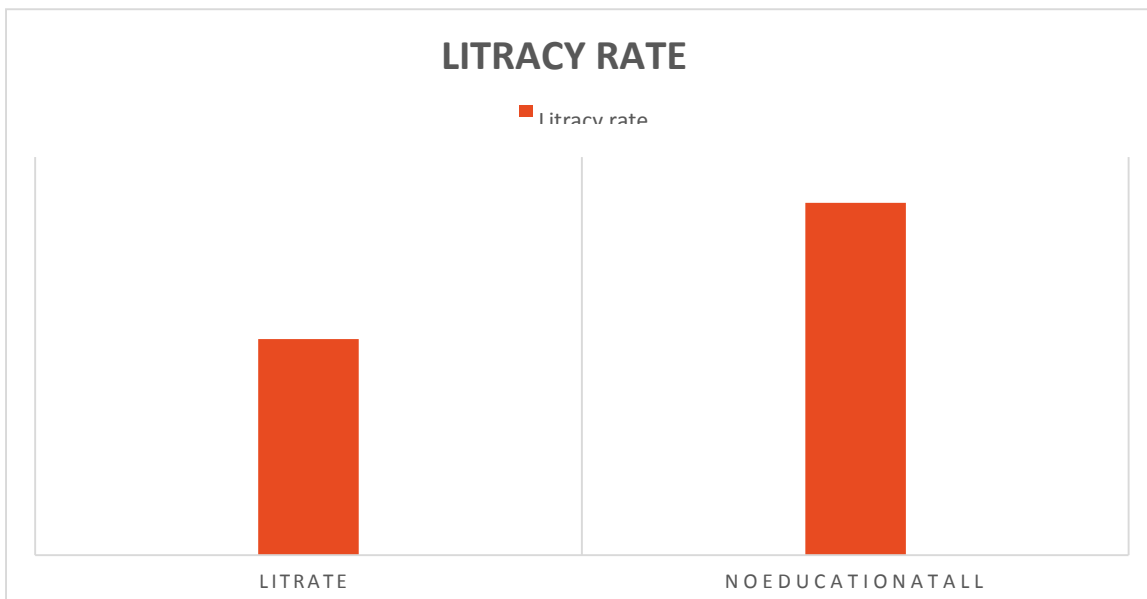


Chart Number 2: Literacy Rate

Life Style: Physical activity was very little among women here in mix urban population, favorite activity is shopping, 1.7 times by women while walking stairs per day was done 6.1 times. The activity monitoring showed inactive life-style of participants who were essentially home residents. 20% women are currently smoking. The question, which is the most important factor in choosing food, the first choice was food which provides good taste, 45%. The next factor was food safety, 56% women doubted restaurant food. Cost was not a significant factor in food selection, most of the women were not aware about nutritional information of food they were consuming to low literacy level. Most famous type of cosine was Veg & Non-veg, 62%, vegetarian diet is not common in this community as only 16% were pure vegetarian. Eating outside of home was 46%, backed food was used by 61%. Use of alcohol is not common due to religious restriction, only 6% women was consuming alcohol. Fast food consumption, mostly from road side food carts (Band kabab or local burger) were 46%.

Discussion Statistical Analysis

This study offered the outcomes of consciousness concerning

cardiovascular health risk factors were varied, majority seemed to know that cardiovascular health risk factor when ever occurs was a major health problem which can death and disability. The attention about significance of education and its importance in many cardiovascular health risk factors and their part in origin of cardiovascular disease was absent in the urban mixed population. The awareness from meticulous knowledge are much less. The combined answers were possibly due to type of question, the question requiring decide or strongly agree replies showed noticeable difference between the two choices. Most agreed, because it is considered risky to disagree with expert, but when the choice was to strongly agree which required opinion and prior information the positive responses were knowingly less. The prejudice of personal belief causing a major event such as Heart attack was noted when incidence of cardiovascular health risk factors was attributed to luck. Few of replies showed seeming good information while others were dictated by folk bias and not a true information so that significant amount of participants believed that bad luck cause cardiovascular health risk factors. No alertness was shown when we assessed the response to the question that these risk factors have no prevention, about half agreed with the proposal.

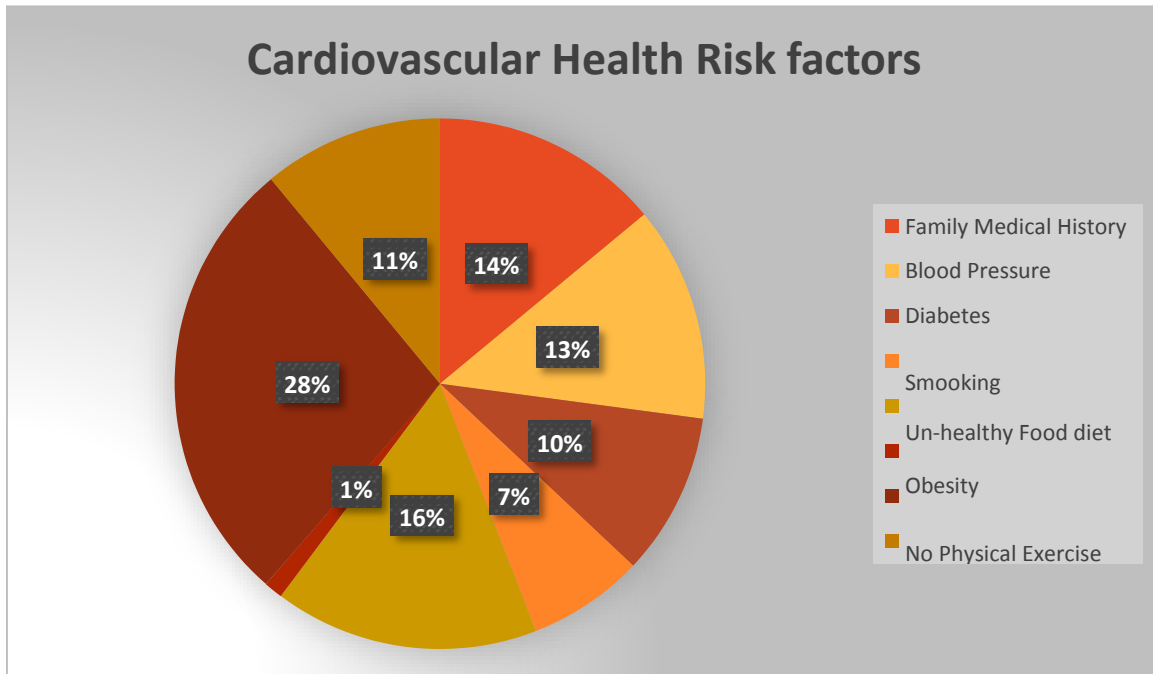


Chart Number 3: Cardiovascular Health Risk factors

The knowledge of cardiovascular health risk factors was present in the community but cultural bias was well-known in some of the women and fact full information in awareness was missing which is a precondition for inspiration towards awareness of cardiovascular health risk factors. Life-styles such as unhealthy eating, stress and low physical exercise were predominant, research showed one in three subjects was in same position. Physical activity calculation showed, physical games were not well-known in the community, which could be looked as sedentary. Mainly

shopping visits were famous as physical activity, participant’s activities were restricted to the home and few trips to the markets. The little physical active life-style appears to be a factor [3], much teaching needs to be transferred to the groups so that they can be conscious of Heart friendly foods. Recent reports suggest, technologically developed countries (Asian) have already increased their fatty food intake and high cholesterol so that in Singapore the fat usage in food has now conceded the 30% of total calories recommendation [1].

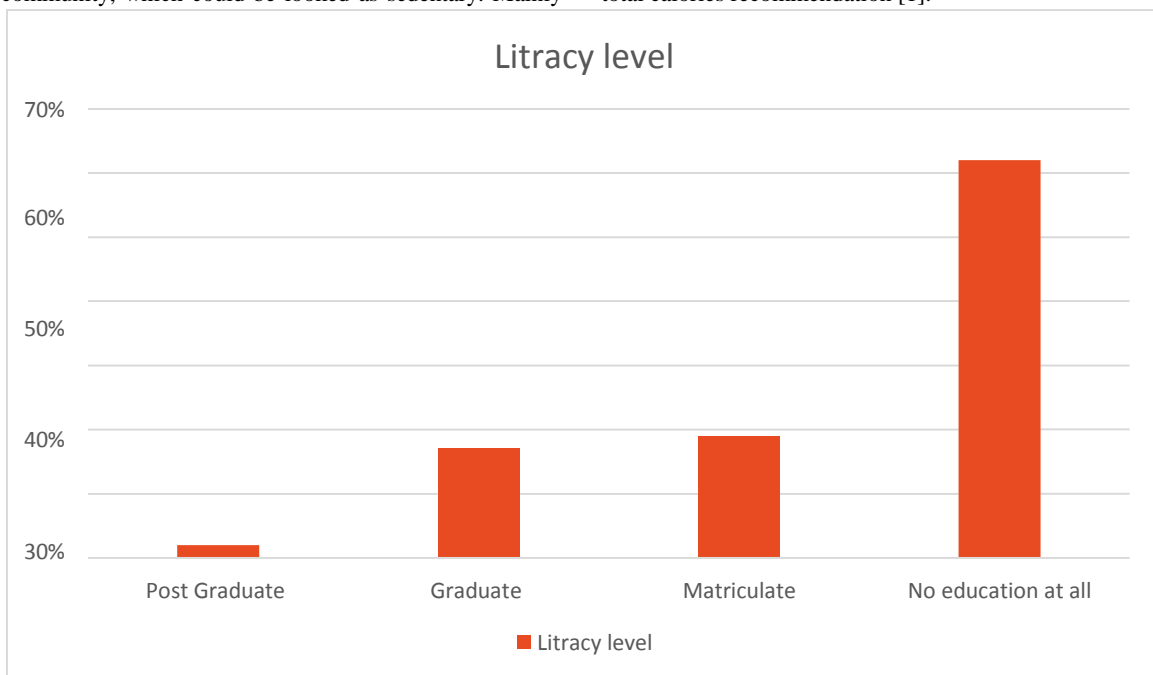


Chart Number 4: level of Literacy

This study demonstrates, in mixed urban population, the occurrence of cardiovascular health risk factors are evaluated with the questionnaire are 37% to 49%, which is very high. The similar situation was noted for high blood pressure which was 37% for women of this specific community. The growing trend of cardiovascular health risk factors in the developing countries is widely reported [1, 4, 5]. Indian urban population's life-style similar to ours have also shown increasing cardiovascular health risk factors [6,7]. Expansion and migration to cities from village life is a phenomenon in developing countries, which is result of the industrial development and emergent rural urban mixed communities such as population of Maleer area of Karachi. These area are vulnerable to emerging danger of cardiovascular health risk factors. The growing risk of cardiovascular disease and its risk factors has been result of altering life- styles, acceptance of sedentary urban living, and entire new patterns of diet, for example, high consumption of meat, oils and Ghee. All this along with advanced level of stress of city life [7,8], as this research showed 48% of the female population was suffering from numerous type of mental stress. In India occurrence rate of cardiovascular health risk factors has obviously enlarged over the previous ten years, numerous reports endorse that this flow is related to industrial development [6, 9]. The cardiovascular health risk factors in the developing countries are suggestively high in urban area as compared to rural mixed population [7, 9]. If not educated, the cardiovascular health risk factors would develop into uncontrollable extents and shall become a health related disaster.

Conclusion

The increased cardiovascular health risk factors in this mixed urban population are a significance of the low literacy level which is leading to no Knowledge to cardiovascular health risk factors and Heart related disease. Pakistan is not in different situation when compared to other developing countries such as India, Bangladesh and Sri Lanka. In urban mixed population, women's contribution in planned sports is nearly absent, they were restricted to house activities, bottlenecks are present in the houses, and most of the households were contained children. Physical action is limited to shopping in markets and mounting stairs. This research reports the essential needs for enlightening the impact of education and its role in physically active life-styles. By providing educational and physical activity infrastructure, we can reduce the risk of cardiovascular health risk factors. For example, Schools, colleges, universities, parks and gyms etc. The city should be planned in such a manner so that sufficient structures of parks, gyms and school play grounds are dispersed in the society with common accesses. The teaching in regards to cardiovascular health risk factors or cardiovascular disease and its eagerness should be given in a manner so that all women can get right of entry. To conclude, this study has revealed that the impact of literacy in general and especially on prevalence of cardiovascular health risk factors in urban mixed population has enlarged over the past decade. Education about

cardiovascular health risk factors and safety guidelines need to be advanced for whole nation. And, large data collection about cardiovascular health risk factors need to be produced, grave hard-work should be made or otherwise this nation would suffer with the bigger problems of cardiovascular disease and health.

Replication of the Study

Many other features related to this study needs to be elucidated in the future

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