

Public Awareness of Cardiovascular Risk Factors and Appraisal of Major Cardiovascular Health Care Programmes in Punjab



Geography

KEYWORDS: Cardiovascular diseases, awareness, health care programmes, cardiovascular risk factors

Anandvir Kaur Saini

Ph.D. Research Scholar, Department of Geography, Panjab University, Chandigarh

ABSTRACT

Cardiovascular diseases are the most common cause of death in Punjab. The present research paper explores the general awareness level of rural Punjabi population on the cardiovascular risk factors and also appraises the major cardiovascular health care programmes of the state. The results show that the awareness of risk factors of cardiovascular diseases in was of average level in rural areas. The most frequently stated risk factors were hypertension and diabetes. Keeping in view the high rate of cardiovascular mortality, the government should undertake vigorous efforts to curtail the behavioural risk factors in order to control the rising menace of cardiovascular deaths.

Introduction

Cardiovascular diseases are the most common cause of death in Punjab. Approximately half of the deaths in Punjab are caused due to cardiovascular disorders (Sample Registration Survey, 1998). The incidence of cardiovascular diseases has been increasing rapidly in the state over the last few decades. The population of the state is being exposed to greater risk of cardiovascular diseases due to the intake of rich diet, high cholesterol level and sedentary lifestyle (The Tribune, 1st May 2006). In 1985, the total number of outdoor patients suffering from cardiovascular diseases in government medical institutions of Punjab was 2.14 lakhs. The figure rose to approximately 3 lakhs in 1995 and then altogether doubled to 6 lakhs in 2005 (Directorate of Health and Family Welfare, Punjab). In 2007, the total number of registered deaths from all causes among indoor patients in various government medical institutions in the state was 10,017. The highest proportion (21%) of these deaths occurred due to diseases of the circulatory system. The combined incidence of cardiovascular morbidity and mortality (number of outdoor patients, indoor patients and deaths caused among indoor patients) in 2007 shows that the traditional Bist Doab region of the state has much higher incidence rate (33 cases per thousand of population) along with Majha (35 cases per thousand of population), than the Malwa region (26 cases per thousand of population).

Many studies have found that the general awareness of major causes and risk factors of cardiovascular diseases is very low. This low level of awareness has been noticed in developed as well as developing societies. Bush et al. (2008) found that women in the U.S.A. have low levels of knowledge about cardiovascular diseases. Similarly, in United Kingdom the rate of public awareness of the impact of lifestyle on heart diseases is low (Sanderson, 2009). As a result of the targeted campaigns aimed at spreading cardiovascular knowledge, the rate of public awareness of cardiovascular diseases as the leading cause of death among U.S. women has increased from 3% in 1997 to 54% in 2009 (Mosca, 2011). Wander et al. (1994) conducted an epidemiological study of heart diseases in a rural area of Ludhiana district and found that the knowledge among general masses about risk factors leading to the development of cardiovascular diseases is poor. The present research paper explores the awareness level of rural Punjabi population on the cardiovascular risk factors, by conducting a field survey of state's Bist Doab region. The study also appraises the major cardiovascular health care programmes of the state.

Data and Methods

The data for this paper was collected through an interview schedule survey. A sample size of 1.5% was selected out of the total 6796 cardiovascular deaths registered in 2009 in rural Bist Doab. The sampling design was divided in two stages. At the first stage around 20 villages were selected using proportionate sampling from all the major statistically significant hot spot clusters

of villages recording high cardiovascular mortality, discussed elsewhere (Saini, 2013). Bigger the hot spot, higher was the number of villages chosen in the sample. At the second stage snow-ball sampling was used to choose five deaths from each selected village with the help of concerned village officials. In this way, a total of 100 deceased persons were selected in the sample who had died from cardiovascular diseases. The interview schedule was administered on the family members of the deceased. An open-ended question was asked to the residents of the chosen households on what were the possible causes of development of cardiovascular diseases responsible for death of their family member.

Awareness of Cardiovascular Risk Factors

The most frequent responses of the household members of the deceased persons were hypertension or high blood pressure (20%) and diabetes or high blood sugar level (14%). The other causes stated were body weakness (6%), stress (4%), physical inactivity or overweight (4%), heavy alcohol consumption (3%), tobacco smoking (3%), hypotension or low blood pressure (2%), intense summer heat (2%), high cholesterol (1%), hole in heart (1%) and old age (1%).

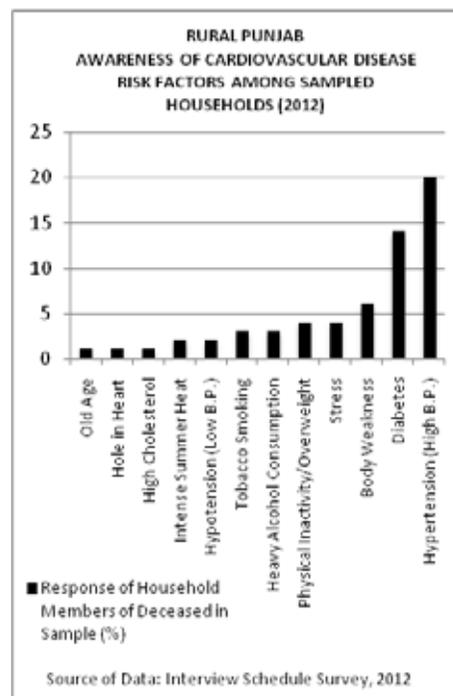


Fig 1 - Awareness of Cardiovascular Disease Risk Factors in Sampled Households

The results show that the general awareness of risk factors of cardiovascular diseases in households of deceased persons was of average level. The most frequently stated risk factors were hypertension and diabetes. Keeping in view the high rate of cardiovascular mortality, the government should undertake vigorous efforts to curtail the behavioural risk factors in order to control the rising menace of cardiovascular deaths.

Major Programmes on Cardiovascular Health Care

There are some important government programmes which focus on cardiovascular health care of the people and the most significant of them is the National Programme for prevention and control of Cancer, Diabetes, Cardiovascular diseases and Stroke (NPCDCS). This programme was launched by Ministry of Health and Family Welfare in selected districts of various states of India. This programme has two components, one focussing on cancer and the other on cardiovascular diseases, stroke and diabetes. In Punjab, district Bathinda was chosen in 2010-11 for implementation of this programme and the districts of Mansa and Hoshiarpur were included in 2011-12. Through this programme, the Central government provides technical and financial support to the state to control these diseases. This programme is embedded in the framework of National Rural Health Mission operating in the state and accordingly, the activities have been planned at the state districts, community health centre and sub-centre level. In context of the cardiovascular diseases, the guiding health model of the NPCDCS programme consists of three parallel courses of action, consisting of primary prevention, secondary management and tertiary care (Fig 2). The Non-Communicable Diseases cell at various levels of National Rural Health Mission ensures implementation and supervision of the programme activities related to health promotion, early diagnosis, treatment and referral and also facilitates partnership with laboratories in the private sector for early diagnosis of the diseases. The whole programme is aimed at constructing a wider knowledge base at community level in conjunction with the ongoing interventions of National Rural Health Mission, National Tobacco Control Programme and other such health care programmes of the government. The World Health Organization's India office also plays an important role in promoting and supporting the NPCDCS programme. The government of India is planning to scale up this programme to cover all the districts of the country.

The Punjab government is also running the School Health Programme under which the health of school students is closely monitored in government schools. The early detection, diagnosis and treatment of congenital cardiovascular disorders (like hole in heart) is an important component of this programme. The ailing students are provided with health care services free of cost in government hospitals. The diagnosis and treatment of cardiovascular diseases is done at Postgraduate Institute of Medical Education and Research (PGIMER), Chandigarh and the whole cost is borne by the government. However, keeping in view the heavy rush of patients at PGIMER, in 2012 Punjab government tied up with renowned private hospitals of the state, which include Christian Medical College, Dayanand Medical College and Mohan Dai Oswal Charitable Hospital in Ludhiana and Fortis, Silver Oaks and Ivy Hospital in Mohali for treatment of the students. The state government has also directed the three state medical colleges at Patiala, Amritsar and Faridkot to perform preliminary check-ups of the identified school children and refer their cases for further treatment to the above-mentioned private hospitals. Previously, the preliminary check-ups were carried out at PGIMER, which was in fact a very long process, leading to huge backlog and prolonged waiting periods. Till 2012, out of the total 1493 detected cases of hole in heart, 1021 children have been treated.

Conclusion

The paper reflects that rural population in Punjab possesses average knowledge of cardiovascular risk factors. However, there is an imperative need to take initiatives to spread awareness among the masses, particularly at the gram panchayat level. Improving knowledge about cardiovascular diseases will help the patients as well as the doctors in better assessment of the cardiovascular risk factors and effective implementation of the preventive policies and measures.

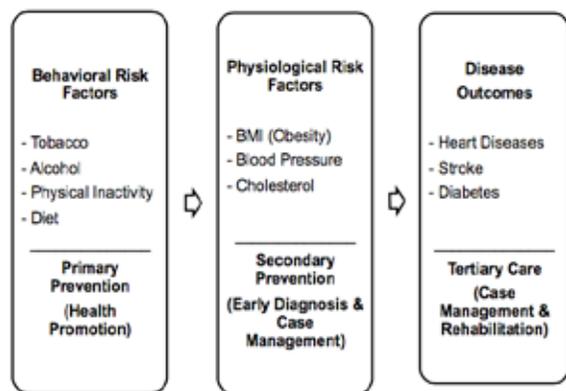


Fig 2 - Risk Factors and Level of Cardiovascular Diseases Prevention and Management

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