

Original Article

A hospital based study on future approaches to combat cardiovascular diseases**Hamzullah Khan¹, Sultan Mahmood² FRCP** (Edin)¹ Final year MBBS, Khyber Medical College, 104-Qasim Hall, Khyber Medical College, University of Peshawar, Postal code: 25120, Peshawar, Pakistan. Tel: +923219020843 OR +923015912063, e-mail: hamza_kmc@yahoo.com² Professor of Medicine, Khyber Medical College, Peshawar, Pakistan**Abstract**

Objectives: To determine the opinions of the physicians posted in two tertiary care hospitals of Peshawar regarding future strategies to combat cardiovascular diseases (CVD).

Methods: Descriptive observational survey conducted in Khyber Teaching Hospital (KHT), Hayatabad Medical Complex (HMC) and Department of Community Medicine at Khyber Medical College (KMC) in Peshawar, Pakistan in the period from 20th June to 15th August 2006. A total of 60 clinical experts were selected, 48 from KHT/KMC and 12 from HMC. Medical specialists, general physicians and community experts were included. They were interviewed with a pre-designed questionnaire, prepared in accordance with the objectives of the study.

Results: According to the clinicians and general physicians' opinion the national approaches to combat cardiovascular diseases should be aimed at: tobacco control legislation and its empowerment (60%), national physical activity policy (70%), check on food quality (21.66%), research promotion in the field of CVD (36.66%), conducting workshops and seminars to educate people about CVD (30%) etc. Community approaches should be more specific towards promotion of healthy activities (71.66%), discouraging smoking (96.66%), and conducting local workshops to increase awareness (26.66%). Individual approaches to combat CVD is to screen their blood pressure, glucose and lipid profile regularly (85%), stop smoking (96.66%), decrease their weight with exercise (75%), take appropriate medicine in time if is patient or at risk (46.66%) and leadership and advocacy to increase awareness and decrease stigma (43.33%).

Conclusion: while establishing a strategy for combating CVD there is need to offer multiple approaches on national, community and individual levels.

Key words: future strategies, CVD, Peshawar.

Introduction

Unfortunately in most countries the response to CVD prevention and control is still based on the infectious disease paradigm. Consequently, the

global and national capacity to respond to CVD epidemic is woefully inadequate. The gap between the need for CVD prevention, control and capacity to meet then will go even wider unless urgent steps

are taken ⁽¹⁾. In Pakistan the National Action Plan for Non-Communicable Disease Prevention (NAP-NCD) incorporates prevention and control of cardiovascular diseases (CVD) as part of a comprehensive and integrated non-communicable Disease (NCD) prevention effort. In this program revision of the current policy on diet and nutrition to expand its focus on under-nutrition; the development of a physical activity policy; strategies to limit the production of, and access to, ghee as a medium for cooking and agricultural and fiscal policies that increase the demand for, and make healthy food more accessible ⁽²⁾.

Heart-file in Pakistan has started a program that focuses on cardiovascular disease prevention and health promotion, includes several initiatives that encompass building policy, reorienting health services, and developing community interventions that utilize the print and electronic media and outreach at the grass-root level to incorporate social marketing approaches ⁽³⁾.

In America, guidelines of the American Heart Association/American Stroke Association have shown new set of risk factors. It is aimed is to have a policy that covers all or nearly all risk factors to combat CVD. According to their report, non-modifiable risk factors include age, sex, low birth weight, race/ethnicity, and genetic factors. Modifiable risk factors include hypertension, exposure to cigarette smoke, diabetes, atrial fibrillation and certain other cardiac conditions, dyslipidemia, carotid artery stenosis, sickle cell disease, postmenopausal hormone therapy, poor diet, physical inactivity, and obesity and body fat distribution. Less well-documented or potentially modifiable risk factors include the metabolic syndrome, alcohol abuse, drug abuse, oral contraceptive use, sleep-disordered breathing, migraine headache, hyperhomocysteinemia, elevated lipoprotein (a), elevated lipoprotein-

associated phospholipase, hypercoagulability, inflammation, and infection ⁽⁴⁾.

Present study was designed as to determine the opinions of the physicians posted in two tertiary care hospitals of Peshawar regarding future strategies to combat cardiovascular diseases (CVD) in our country.

Methods

A descriptive observational study was conducted in Khyber Teaching Hospital (KHT), Postgraduate Medical Institute Hayatabad Medical Complex (PGMI, HMC) and Department of Community Medicine Khyber Medical College (KMC) Peshawar, from 20th June to 15th August 2006.

Inclusion criteria were medical specialists, general physicians and community experts posted in KHT, PGMI, HMC and Department of Community Medicine KMC Peshawar. Exclusion criteria were experts in all specialties other than general medicine and cardiology.

A questionnaire, prepared in accordance with the objectives of the study. Questionnaire contained few questions from the physicians regarding the national, community and individual approaches to prevent CVD. These questionnaires were distributed among the physicians. A total of 60 experts returned the completed questionnaires, 48 from KHT/KMC and 12 from HMC.

Finally the filled returned questionnaires were collected and provided information's were statistically analyzed.

Results

A total of 60 clinical experts were selected, 48 from KHT/KMC and 12 from HMC. Medical specialists, general physicians and community experts were included.

1. *National approaches towards cardiovascular disease prevention*: According to the clinicians and general physicians opinion the national approaches to combat cardiovascular diseases

should be aimed at: tobacco control legislation and its empowerment (60%), national physical activity policy (70%), check on food quality (21.66%), research promotion in the field of CVD (36.66%) etc. (Table 1)

2. *Individual attempts to prevent cardiovascular disease prevention:* Individual approaches to

combat CVD are to screen their blood pressure, glucose and lipid profile regularly (85%), stop smoking (96.66%), decrease their weight with exercise (75%), take appropriate medicine in time if is patient or at risk (46.66%) and leadership and advocacy to increase awareness and decrease stigma (43.33%).(Table 2)

Table 1: National/Community level approaches towards cardiovascular disease prevention: comments of the physicians

National/Community level approaches towards cardiovascular disease prevention	Number of the respondents Total=60	Percentage of total (%)
Tobacco control legislation	58	96.6%
National nutritional policy to reduce fat and salt intake & to promote fruits and vegetables intake.	36	60%
National physical activity policy for promotion of physical activities of the citizens.	42	70%
Check on food quality.	13	21.66%
Research activities promotion in medical institutes.	22	36.66%
Provision of drugs used for CVD treatment on affordable and accessible bases to citizen.	47	78.33V
CVD institutes (like NICVD) establishments in main cities.	26	43.33%
Conducting conferences and workshops to educate people about CVD	18	30%
Walks should be arranged by government to increase awareness	10	16.66%

Table 2: Individual attempts to prevent cardiovascular diseases: comments of the physicians

Individual attempts to prevent cardiovascular disease	Number of the respondents Total=60	Percentage of total (%)
Screen their blood pressure, sugar level, and lipid profile regularly	51	85%
Care of their weight & exercise etc	46	75%
Smoking should be stopped, if one is smoker	58	96.66%
Medication should be used for hypertension, diabetes and myocardial infarction.	40	66.66%
Leadership and advocacy to combat CVD.	26	43.33%
Raise awareness and reduce stigma of CVD.	20	33.33%

Discussion

World health organization further reinforces the national approaches to combat cardiovascular diseases that Framework Convention on Tobacco Control (FCTC) is ratified in the country. Tobacco control legislation are enacted and enforced. Multi-sartorial actions are required to reduce fat intake, reduce salt and promote fruit and vegetable consumption. Include stakeholders in the policy formulation and service planning. Capacity for health research is built within countries by encouraging research studies on CVD⁽⁵⁾. According to the comments of the physicians; community

approaches should be more specific towards promotion of healthy activities, discouraging smoking and conducting local workshops to increase awareness. Our study correlates with World Health Organization report 2002⁽⁶⁾. Individual attempts to prevent CVD also carries its role and should be therefore addressed. In a study on risk factors for cardiovascular disease in school children at Karachi showed that 29% of the children were physically inactive, 31% were taking unhealthy diet daily, 21% were overweight and 6% were smokers. Family history of cardiac disease,

hypertension and diabetes were positive in 4%, 23% and 16% of the children respectively ⁽⁷⁾.

Risk factors of CVD show great variations in various regions of the world. Therefore strategies towards the prevention programs should be more specific. Hypertension and stroke occur in Asians. In Australia, New Zealand and Japan, lower social class is a risk factor for hypertension and stroke ⁽⁸⁾. We would need epidemiological research studies and trials to make long term effective policies to prevent and control the increasing burden of cardiovascular disease. What is so far observed is not satisfactory. In our country only twelve research publications on cardiovascular diseases were reported in 1999-2001 while it is 12502 in USA, 2667 in UK and 294 in India ⁽⁹⁾.

Conclusion

While establishing a strategy for combating CVD there is need to offer multiple approaches on national, community and individual levels. Prevention programs should be started based on cross-sectional surveys and case studies. Majority of the people have modifiable risk factors for cardiovascular disease that are easily preventable. Prevention efforts are required early in life, using strategies for behavioral modification and health promotion.

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