

PREVENTIVE MEASURES FOR CARDIOVASCULAR DISEASES

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Abstract: Cardiovascular diseases (CVDs), including coronary artery disease, hypertension, heart failure, and stroke, remain a leading cause of morbidity and mortality globally. The World Health Organization (WHO) reports that CVDs are responsible for nearly 18 million deaths annually. Most CVDs are linked to behavioral risk factors such as poor diet, physical inactivity, tobacco use, and harmful alcohol consumption[1,2,3]. Public health education and community-level awareness campaigns are essential for preventing the onset of these conditions. This study aimed to evaluate the impact of awareness activities and assess the population's knowledge, attitudes, and practices (KAP) related to cardiovascular health through a structured survey.

Key words: heart diseases, hert attack, headache, coronary artery disease, heart failure, arrhythmias, stroke.

INTRODUCTION

Cardiovascular diseases (CVDs) remain the leading cause of death globally, accounting for approximately 17.9 million deaths each year, according to the World Health Organization. CVDs include conditions such as coronary artery disease, heart failure, arrhythmias, and stroke. Despite advances in medical treatment, prevention remains the most effective and economical strategy to combat this global health issue. Risk factors such as hypertension[4,5,6], smoking, obesity, diabetes, unhealthy diet, and physical inactivity are largely modifiable, and implementing preventive measures can significantly reduce CVD-related morbidity and mortality. This study aims to explore the current preventive strategies for cardiovascular diseases and highlight their effectiveness based on existing data.

MATERIAL AND METHODS

A cross-sectional study was conducted between January and April 2025 in three urban districts. The study consisted of two key components: 1) a public health promotion campaign focused on CVD prevention[7,8], and 2) a questionnaire-based survey. Educational sessions, pamphlets, social media posts, and local health fairs were organized to disseminate information about heart-healthy lifestyles.

The survey instrument was a structured questionnaire comprising 25 items, divided into sections on demographics, cardiovascular risk factor awareness, lifestyle practices, and preventive behaviors. A total of **500 respondents**, aged 18 and above, were selected through[9,10] stratified random sampling. Data were analyzed using descriptive statistics and chi-square tests to assess associations between knowledge levels and behavioral practices.

RESULTS

Out of 500 distributed questionnaires, 472 were completed (response rate: 94.4%). The majority of participants (58%) were female, and the mean age was 37.5 years. Following the awareness campaign:

- **76%** of respondents correctly identified hypertension as a major CVD risk factor (vs. 49% before),
- **62%** reported reducing salt intake,
- **53%** increased daily physical activity,

- **29%** of smokers attempted to quit.

Moreover, **83%** of participants expressed willingness to undergo regular blood pressure and cholesterol checks. A statistically significant association ($p < 0.05$) was found between high awareness scores and positive lifestyle changes such as healthy eating and regular exercise

DISCUSSION

The study demonstrates the positive impact of targeted community-based awareness campaigns on improving cardiovascular health literacy and promoting preventive behaviors. The results highlight that educational outreach — when combined with practical interventions — can significantly influence public understanding and health-related actions. However, barriers such as access to healthy food and safe exercise spaces remain challenges in lower-income neighborhoods.

The successful response to the survey and public interest in the campaign suggest that continued education, supported by healthcare professionals and local authorities, is crucial. Further studies are recommended to evaluate the long-term effects of such programs and explore scalable models for national implementation.

CONCLUSION

This study confirms that community-based awareness initiatives significantly improve public knowledge and preventive behaviors related to cardiovascular diseases. The health promotion campaign led to measurable increases in awareness of risk factors, adoption of healthier lifestyles, and willingness to engage in preventive check-ups. The results demonstrate that even short-term, well-structured interventions can positively influence health behavior at the population level. Furthermore, the survey provided valuable insight into current knowledge gaps and attitudes within the community, supporting the need for continued educational outreach and public engagement.

Recommendations for the prevention of cardiovascular diseases

1. **Adopt a Heart-Healthy Diet**
 - Increase intake of fruits, vegetables, whole grains, lean proteins, and healthy fats (e.g., olive oil, nuts).
 - Limit consumption of saturated fats, trans fats, salt, and added sugars.
 - Reduce processed and fast food intake.
2. **Engage in Regular Physical Activity**
 - Aim for at least 150 minutes of moderate-intensity aerobic exercise (e.g., brisk walking, cycling) or 75 minutes of vigorous activity (e.g., running) per week.
 - Include muscle-strengthening activities twice a week.
3. **Avoid Tobacco Use**
 - Quit smoking and avoid exposure to secondhand smoke.
 - Seek professional support or nicotine replacement therapy if needed.
4. **Limit Alcohol Consumption**
 - Follow national guidelines (generally no more than one drink per day for women, two for men).
 - Avoid binge drinking.
5. **Maintain a Healthy Body Weight**
 - Aim for a Body Mass Index (BMI) between 18.5–24.9.
 - Balance calorie intake with physical activity to prevent obesity.
6. **Control Blood Pressure, Cholesterol, and Blood Sugar**
 - Monitor your health regularly and follow medical advice.
 - Take prescribed medications as directed.
7. **Manage Stress Effectively**
 - Practice relaxation techniques such as meditation, deep breathing, or yoga.
 - Ensure adequate sleep and emotional support.

8. Go for Regular Health Screenings
 - Schedule periodic check-ups to detect risk factors early.
 - Monitor key indicators: blood pressure, cholesterol, glucose, and weight.
9. Increase Public Awareness and Education
 - Encourage health promotion campaigns in schools, workplaces, and communities.
 - Use social media and healthcare platforms to spread reliable information.
10. Create Heart-Friendly Environments
 - Advocate for healthy urban planning (parks, bike lanes, access to fresh food).
 - Support workplace wellness programs and school-based health education.

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