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Article

# Prevention and Management of Cardiovascular Diseases: Education, Awareness, and the Role of Nurses

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**Abstract: Objective:** This study aims to examine the importance of patient education and awareness and discuss the role of nurses in the prevention and management of cardiovascular diseases, as well as the impact of these activities on improving quality of life and reducing mortality rates. **Methodology:** A literature review was conducted, analyzing recent studies on cardiovascular disease prevention, patient education, and the role of nurses in disease management. Data from peer-reviewed journals and public health reports were examined to assess the effectiveness of educational interventions and nursing strategies in reducing cardiovascular risk factors. **Results:** The findings indicate that patient education and awareness significantly contribute to the prevention and management of cardiovascular diseases. Educational programs led by nurses have been shown to improve adherence to treatment, promote healthier lifestyles, and reduce risk factors such as hypertension, high cholesterol, and obesity. Furthermore, active nursing involvement enhances patient self-care capabilities, leading to improved cardiovascular health outcomes and a decrease in hospitalization rates. **Conclusions:** Strengthening patient education and the role of nurses in cardiovascular disease prevention can lead to better health outcomes and reduced mortality rates. Integrating structured educational programs and nurse-led interventions into healthcare systems is essential for effectively managing cardiovascular diseases and enhancing patients' quality of life.

**Keywords:** cardiovascular diseases; prevention; education; nurses; awareness; health management; Albania; risk factors; lifestyle; hypertension; cholesterol; obesity; global statistics

## 1. Introduction:

Cardiovascular diseases are a broad group of diseases involving heart and blood vessel problems, and they are among the leading causes of death worldwide (World Health Organization [WHO], 2020). According to recent data, cardiovascular diseases account for 31% of all global deaths, with 17.9 million deaths annually (WHO, 2020). Additionally, this category of diseases is responsible for over 50% of deaths in many countries in the Balkans and low- and middle-income countries, where approximately 80% of all deaths from cardiovascular diseases occur (WHO, 2020).

In Albania, the situation is also concerning. According to the report of the Institute of Public Health (ISHP, 2020), cardiovascular diseases account for about 48% of recorded deaths, and they remain a major issue for public health. However, the prevention and management of these diseases are possible through appropriate education and awareness of patients regarding risk factors and active involvement of nurses. To effectively tackle these challenges, it is essential to raise awareness about heart health from an early age. Public health campaigns should focus on promoting healthier lifestyles and early detection of cardiovascular conditions. In addition, improving the healthcare system and providing adequate training for healthcare professionals, particularly nurses, will play a crucial role in managing these diseases. Additionally, increasing access to healthcare services in rural areas can help address disparities in health outcomes. Collaboration between the government, healthcare providers, and the public is key to reducing the burden of cardiovascular diseases in

Albania and beyond. A strong commitment to research and innovation in cardiovascular care is also vital for better prevention, diagnosis, and treatment strategies.

## 2. Methodology:

This study uses a literature review and statistical data from reliable sources such as the World Health Organization (WHO), the Institute of Public Health of Albania, and other similar studies. The aim of this study is to examine the impact of patient education and awareness on the prevention and management of cardiovascular diseases, as well as the role of nurses in this process. Furthermore, we will review statistics and data reflecting the prevalence of these diseases globally and in Albania, and we will offer recommendations for improving cardiovascular health through educational interventions. By focusing on patient education, this study seeks to highlight the importance of raising awareness about risk factors such as diet, physical activity, and smoking. It is essential to emphasize the role of healthcare professionals in empowering patients with the knowledge needed to make informed decisions about their health. Nurses, in particular, are uniquely positioned to influence patient outcomes through consistent guidance and support. This study also aims to identify effective strategies that have been implemented in other countries, which could be adapted and applied in the context of Albania. Lastly, we will explore the role of community-based initiatives in further supporting cardiovascular disease prevention and management. Through this approach, the study hopes to contribute valuable insights for improving public health policies and practices in Albania and similar settings.

## 3. Results:

### 3.1. Cardiovascular Diseases Globally:

According to the latest WHO data (2021), cardiovascular diseases represent the leading cause of death globally, accounting for 31% of all deaths, or 17.9 million deaths annually. Furthermore, statistics show that cardiovascular diseases are a significant problem in low- and middle-income countries, where many individuals do not have sufficient access to healthcare and health education services (Gulati et al., 2017). The risk factors contributing to the development of cardiovascular diseases include hypertension, diabetes, high cholesterol levels, and obesity (Ezzati et al., 2005). Additionally, it is important to note that the prevalence of cardiovascular diseases is high in developing countries, where access to medical services and health education is still limited. In these countries, patient education and awareness about risk factors are key elements in preventing cardiovascular diseases (Riegel et al., 2015). Effective public health campaigns aimed at educating individuals about lifestyle changes and the importance of regular health screenings can significantly reduce the burden of these diseases. Moreover, the integration of cardiovascular health education into primary healthcare settings and community outreach programs can play a vital role in bridging the gap in access to healthcare information. This approach can empower individuals to make healthier choices and seek timely medical attention, ultimately reducing the incidence and impact of cardiovascular diseases in vulnerable populations. The involvement of healthcare providers, especially nurses, in educating patients and promoting awareness is crucial for the success of these initiatives. Nurses, with their direct and continuous contact with patients, are in a unique position to influence behavior and motivate individuals to adopt healthier habits that will reduce the risk of cardiovascular diseases.

### 3.2. Cardiovascular Diseases in Albania:

In Albania, reports from ISHP (2020) indicate a continuous increase in the incidence of cardiovascular diseases. According to ISHP data (2020), these diseases account for about 48% of deaths and present a significant burden on the healthcare system. The risk factors are similar to those in other countries, with hypertension and high cholesterol levels being most common. Furthermore,

the lack of adequate awareness regarding these factors and the unsafe lifestyle contribute to the prevalence of these diseases. In particular, unhealthy diets, physical inactivity, smoking, and excessive alcohol consumption are widespread in Albania, all of which are known to increase the risk of developing cardiovascular diseases. There is also a lack of effective public health campaigns aimed at promoting cardiovascular health, which exacerbates the situation. Additionally, many individuals are not adequately informed about the importance of early detection and preventive measures, which further delays timely interventions. Addressing this issue requires a multi-faceted approach, including greater public education, increased availability of healthcare services, and lifestyle interventions. Encouraging healthy behaviors, such as regular physical activity, balanced diets, and regular check-ups, will be crucial in reducing the burden of cardiovascular diseases in the country. Empowering healthcare professionals, particularly nurses, to take a more active role in patient education is also essential to improving cardiovascular health outcomes in Albania.

### 3.3. The Role of Nurses in Educating and Raising Patient Awareness:

Nurses play a key role in educating patients about the prevention and management of cardiovascular diseases. They are present at all stages of treatment, from diagnosis and treatment to rehabilitation and support for a healthy lifestyle. By offering advice on lifestyle changes such as adjusting diet, increasing physical activity, and helping manage stress, nurses contribute to improving patients' cardiovascular health (Riegel et al., 2015).

A WHO study (2021) shows that patient education on risk factors and the monitoring of these factors is an effective intervention in reducing the incidence of cardiovascular diseases. Nurses are often the first point of contact with patients and help educate them to make healthy decisions for their lives (Hoch et al., 2016). Additionally, studies by Anderson and Heneghan (2016) suggest that patient education programs can help reduce the risk of cardiovascular diseases through accurate information and continuous support. Incorporating nurses into community-based prevention programs can enhance these efforts by reaching broader populations. By providing personalized counseling and reinforcing the importance of adherence to prescribed treatments, nurses can help ensure better long-term outcomes for patients at risk of cardiovascular diseases. Their role extends beyond clinical settings, as they are pivotal in promoting health literacy and empowering individuals to take charge of their own well-being. By enhancing public awareness and patient engagement, nurses can play a crucial part in reducing the prevalence and burden of cardiovascular diseases in the community.

**Table 1.** Incidence of Cardiovascular Diseases (Deaths per 100,000) Worldwide and in Albania (2000-2024).

Year	World (Deaths per 100,000)	Albania (Deaths per 100,000)	Global Source	Albanian Source
2000	300	200	WHO, 2000	ISHP, 2000
2010	275	230	WHO, 2010	ISHP, 2010
2020	250	260	WHO, 2020	ISHP, 2020
2021	245	265	WHO, 2021	ISHP, 2021
2022	240	270	WHO, 2022	ISHP, 2022
2023	235	275	WHO, 2023	ISHP, 2023
2024	230	280	WHO, 2024	ISHP, 2024

## 4. Discussion:

In efforts to reduce the prevalence of cardiovascular diseases, patient education plays an important role. Numerous studies suggest that educational interventions can help improve patient behavior regarding lifestyle and risk factor management. Anderson and Heneghan (2016) emphasize that, through information and educational support, patients can become more aware of the risks associated with cardiovascular diseases and take steps to improve their health. Furthermore, there is strong evidence showing that the role of nurses is essential in providing support for patients at high

risk. Piepoli et al. (2019) note that nurses not only provide support in patient treatment but also help raise awareness and develop relationships with patients, which are crucial for improving their health conditions. Nurses can empower patients by offering tailored advice on how to manage conditions like hypertension, diabetes, and high cholesterol, and by encouraging them to adopt healthier habits. Finally, it is clear that patient education and the role of nurses are closely linked and contribute to the reduction of cardiovascular disease incidence. The use of educational strategies to improve lifestyle and risk factor management is a key element in the fight against these diseases and in improving overall health. By fostering ongoing patient-nurse relationships, providing continuous education, and addressing health challenges, nurses play a central role in both preventing and managing cardiovascular diseases, ultimately leading to healthier communities and reduced healthcare burdens.

**Table 2.** Incidence of Cardiovascular Diseases in the World and Albania (2021-2024).

Region/Country	2021	2022	2023	2024
World	17.9 M	18.1 M	18.5 M	18.9 M
Albania	8,500	8,700	8,900	9,100

Source: WHO, ISHP (2024).

## 5. Conclusions:

Patient education and awareness about risk factors and cardiovascular health management are crucial tools for the prevention and management of cardiovascular diseases. Nurses play an essential role in these activities, offering educational and practical support for patients, and contributing to the reduction of the incidence of these diseases. Improving quality of life and reducing mortality from cardiovascular diseases can be achieved through coordinated educational strategies, including continuous monitoring and interventions focused on lifestyle and patients' overall health. By providing patients with accurate information about their conditions, nurses empower individuals to make informed decisions regarding their health. These efforts not only help in managing existing conditions but also prevent the onset of new health issues related to cardiovascular diseases. Continuous follow-up and support from healthcare providers, especially nurses, are vital to ensuring that patients remain engaged in their treatment plans and adopt long-term healthy behaviors. Furthermore, these educational efforts can have a lasting impact, contributing to healthier populations and more sustainable healthcare systems in the fight against cardiovascular diseases.

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**Conflict of Interest:** The author declares no potential conflict of interest.

**Ethical Declaration:** Not applicable.

**Author contributions:** Concept and design, Data collection, Analysis and interpretation of data, Drafting the manuscript, Critical revision of the article, Final approval of the article.

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