THE IMPORTANCE OF PREVENTIVE MEDICINE IN REDUCING CHRONIC DISEASES

Ana Claudia Rodrigues da Silva¹
Kaio Germano Sousa da Silva²
Thayanne Torres Costa³
Matheus de Oliveira Dutra⁴
Analice Barbosa Santos de Oliveira⁵
Rayssa Maria de Sousa Silva⁶
Rafaela Abreu Magalhães Tunes⁷
Sabrina Carnielo de Barros⁸
Matheus Gomes da Costa⁹
Warlen Miiller Rocha Araújo¹⁰

ABSTRACT

Objective: To analyze the importance of preventive medicine as an effective strategy in reducing the incidence and severity of chronic diseases, with the purpose of providing relevant insights for public health and medical professionals, aiming to improve the population’s health, increase the quality of life, and reduce the costs associated with the treatment of chronic diseases.

Theoretical framework: Preventive medicine also aligns with a holistic approach to health, considering the individual as a whole, not just a set of symptoms. It addresses mental, emotional, and spiritual health, recognizing that overall well-being plays an important role in preventing chronic diseases. Population aging is a reality in many parts of the world, making preventive medicine even more essential. As people live longer, the risk of developing chronic diseases increases, making the implementation of preventive strategies crucial to maintaining health and independence in old age.

¹ Secretaria de Saúde do Distrito Federal, Brasília, Distrito Federal, Brazil. E-mail: enf.anaclaudia@hotmail.com
Orcid: https://orcid.org/0000-0002-2610-9325

² Universidade Federal do Piauí (UFPI), Teresina, Piauí, Brazil. E-mail: kaiogsds@hotmail.com
Orcid: https://orcid.org/0000-0003-4236-6230

³ Universidade federal do Piauí (UFPI), Teresina, Piauí, Brazil. E-mail: thayanneppgan@gmail.com
Orcid: https://orcid.org/0000-0001-6297-8897

⁴ Centro Universitário Fampetro, Manaus, Amazonas, Brazil. E-mail: matheusdutramed@gmail.com
Orcid: https://orcid.org/0009-0001-5991-9607

⁵ SENAC-DF, Brasília, Distrito Federal, Brazil. E-mail: anadf.26@gmail.com
Orcid: https://orcid.org/0000-0002-4878-3193

⁶ Universidade Federal do Piauí (UFPI), Teresina, Piauí, Brazil. E-mail: rayssa.rve@gmail.com
Orcid: https://orcid.org/0000-0001-8926-398X

⁷ União das Faculdades dos Grandes Lagos (UNILAGO), São José do Rio Preto, São Paulo, Brazil.
E-mail: ra.tunes2@gmail.com Orcid: https://orcid.org/0009-0003-1116-6137

⁸ União das Faculdades dos Grandes Lagos (UNILAGO), São José do Rio Preto, São Paulo, Brazil.
E-mail: sabrinacarnielo@gmail.com Orcid: https://orcid.org/0009-0001-9493-4802

⁹ Universidade Estadual do Maranhão - Campus Caxias, Caxias, Maranhão, Brazil.
E-mail: matheusgomes0408@gmail.com Orcid: https://orcid.org/0000-0002-2604-8876

¹⁰ União das Faculdades dos Grandes Lagos (UNILAGO), São José do Rio Preto, São Paulo, Brazil.
E-mail: wmiiller@hotmail.com Orcid: https://orcid.org/0000-0003-4936-3681
Method: This is quantitative research with a descriptive and exploratory approach. Quantitative research is suitable for analyzing the relationships between variables and assessing the extent of the importance of preventive medicine in reducing chronic diseases.

Results and conclusion: The results obtained in the research provide information about the prevalence of different health conditions among the respondents. The research results reveal that several chronic health conditions are common among the respondents. Diabetes, Hypertension, Obesity, and Asthma are the most prevalent conditions, with occurrence rates of 20%, 21%, 25%, and 16%, respectively. These results highlight the importance of addressing these health conditions in prevention and healthcare strategies.

Research implications: The research can directly contribute to improving the population's health by reducing the incidence and severity of chronic diseases, leading to a healthier population and, consequently, a better quality of life.

Originality/value: The research provides solid empirical evidence of the effectiveness of preventive medicine in reducing chronic diseases. This contributes to the scientific knowledge base in the field of public health, offering relevant information for researchers, academics, and healthcare professionals.

Keywords: Holistic Well-being, Chronic Diseases, Disease Prevention, Public Health.

A IMPORTÂNCIA DA MEDICINA PREVENTIVA NA REDUÇÃO DE DOENÇAS CRÔNICAS

RESUMO

Objetivo: Analisar a importância da medicina preventiva como uma estratégia eficaz na redução da incidência e da gravidade de doenças crônicas, com o propósito de oferecer insights relevantes para a saúde pública e os profissionais da área médica, visando, assim, melhorar a saúde da população, aumentar a qualidade de vida e reduzir os custos associados ao tratamento das doenças crônicas.

Referencial teórico: A medicina preventiva também se alinha com a abordagem holística da saúde, considerando a pessoa como um todo, não apenas como um conjunto de sintomas. Cuida da saúde mental, emocional e espiritual, reconhecendo que o bem-estar geral desempenha um papel importante na prevenção de doenças crônicas. O envelhecimento da população é uma realidade em muitas partes do mundo, o que torna a medicina preventiva ainda mais essencial. À medida que as pessoas vivem mais, o risco de desenvolver doenças crônicas aumenta, tornando crucial a implementação de estratégias preventivas para manter a saúde e a independência na terceira idade.

Método: Trata-se de uma pesquisa de natureza quantitativa, com abordagem descritiva e exploratória. A pesquisa quantitativa é adequada para analisar as relações entre variáveis e avaliar a extensão da importância da medicina preventiva na redução de doenças crônicas.

Resultados e conclusão: Os resultados obtidos na pesquisa fornecem informações sobre a prevalência de diferentes condições de saúde entre os entrevistados. Os resultados da pesquisa revelam que várias condições crônicas de saúde são comuns entre os entrevistados. Diabetes, Hipertensão, Obesidade e Asma são as condições mais prevalentes, com taxas de ocorrência de 20%, 21%, 25% e 16%, respectivamente. Esses resultados destacam a importância de abordar essas condições de saúde em estratégias de prevenção e cuidados de saúde.

Implicações da pesquisa: A pesquisa pode contribuir diretamente para a melhoria da saúde da população, reduzindo a incidência e a gravidade de doenças crônicas. Isso resulta em uma população mais saudável e, consequentemente, uma melhor qualidade de vida.

Originalidade/valor: A pesquisa fornece evidência empírica sólida sobre a eficácia da medicina preventiva na redução de doenças crônicas. Isso contribui para a base de conhecimento científico na área de saúde pública, oferecendo informações relevantes para pesquisadores, acadêmicos e profissionais de saúde.


RGSA adota a Licença de Atribuição CC BY do Creative Commons (https://creativecommons.org/licenses/by/4.0/).
1 INTRODUCTION

Chronic diseases represent a significant burden on health systems, with a substantial impact on the quality of life of populations worldwide (WHO, 2023). The importance of preventive medicine in the reduction of chronic diseases is a topic of extreme relevance in the area of health, since chronic diseases represent a significant burden for health systems worldwide (MENDES, 2012).

According to the World Health Organization (WHO), chronic diseases such as heart disease, diabetes, cancer and chronic respiratory diseases account for approximately 71% of all global deaths (MALTA et al., 2017). In addition, these chronic health conditions are a significant source of disability and reduced quality of life for millions of people.

Preventive medicine stands out as a key approach to mitigating the impact of chronic diseases, since it focuses on identifying and mitigating risk factors before health conditions develop (SILVA et al., 2023). As Benjamin Franklin said, "An ounce of prevention is worth a kilo of cure." This maxim applies directly to the importance of preventive medicine, because investing in prevention is more efficient and economical than treating chronic diseases after their development (AYERES, 2016).

Preventive medicine encompasses a variety of strategies and practices, including regular medical examinations, immunizations, healthy lifestyle counseling, health education, and risk factor screening. These measures not only reduce the risk of developing chronic diseases, but can also early identify health problems, allowing more effective and less invasive interventions (NORMAN, 2015).

Hippocrates, the father of medicine, illustrates the importance of preventive medicine: "The cure is not only to treat a disease, but also to prevent it." This fundamental idea is the core of preventive medicine, which not only seeks to cure diseases but also prevent them from occurring in the first place (BEZERRA; VIANNA; BACELAR, 2012).

The overall objective of this research is to analyze the importance of preventive medicine as an effective strategy in reducing the incidence and severity of chronic diseases, with the purpose of providing relevant insights to public health and medical professionals, thus aiming to improve the health of the population, increase the quality of life and reduce the costs associated with the treatment of chronic diseases.

2 THEORETICAL FRAME

The importance of preventive medicine in reducing chronic diseases is not limited to the individual and economic level alone. It also plays a vital role in promoting equity in health. Chronic diseases disproportionately affect vulnerable populations, such as those with lower incomes, limited access to health care and ethnic minorities (TAVARES et al., 2016). Preventive medicine can help reduce these disparities, making health more accessible and promoting awareness of the importance of prevention in all communities (TESSER, 2017).

Health education plays a crucial role in preventive medicine, enabling people to make informed decisions about their well-being (SILVA et al., 2014). As writer Susan Lieberman points out, "Health education is an important investment because it allows people to become self-reliant in their self-care and well-being." When people have access to information about the risks associated with certain behaviors and knowledge about how to adopt healthier lifestyles, they are better prepared to prevent chronic diseases (FALKENBERG et al., 2014).

It also extends beyond individual interventions and encompasses public health policies. The implementation of health-enhancing policies, such as reducing smoking, improving food quality and promoting physical activity, plays a critical role in the prevention of chronic
The Importance of Preventive Medicine in Reducing Chronic Diseases

Preventive medicine also aligns with the holistic approach to health, considering the person as a whole, not just as a set of symptoms. It takes care of mental, emotional and spiritual health, recognizing that general well-being plays an important role in the prevention of chronic diseases (COELHO, 2009).

Preventive medicine plays a multifaceted and vital role in the reduction of chronic diseases. It not only benefits individuals, economies and health systems, but also contributes to the promotion of equity in health and the improvement of quality of life at the global level (SANTOS, 2005). Investing in preventive medicine is not only a wise choice, but an urgent need to face the challenge of chronic diseases in the modern world. As stated by the Roman philosopher Seneca: "Health is the greatest possession, therefore, promoting preventive medicine is an invaluable investment in our well-being and in the future of public health.

Its impact on public health and healthcare systems, preventive medicine also plays a key role in medical research and innovation. The prevention of chronic diseases provides a solid basis for carrying out studies and research aimed at better understanding the causes and risk factors involved. This, in turn, allows the development of more effective prevention and intervention strategies (OLIVEIRA, 2017).

Scientists and researchers in public health can make use of the information collected through preventive medicine to identify trends and factors that contribute to the emergence of chronic diseases. These findings can drive resource allocation and the development of more targeted and targeted interventions (MARINS, 2014).

Preventive medicine is closely related to the promotion of a healthy lifestyle. This includes promoting balanced eating, regular physical activity, stress control, and adequate sleep. These healthy habits not only help in the prevention of chronic diseases, but also improve the overall quality of life. Thus, preventive medicine is not limited only to the absence of diseases, but extends to well-being and vitality (SILVA, 2014).

To illustrate the importance of preventive medicine in relation to quality of life, we can consider the following quote from author Robert Urich: "Health is extremely important, but quality of life is what really matters." Preventive medicine plays a critical role in improving the quality of life, allowing people to live longer and healthier lives with fewer suffering and limitations (ARAÚJO et al., 2000).

In addition, preventive medicine contributes to the sustainability of health systems by reducing the burden on medical and hospital services. By preventing the development of chronic diseases, fewer resources are needed to treat these conditions, freeing up resources to meet other health needs (CECILIO et al., 2020).

Population aging is a reality in many parts of the world, which makes preventive medicine even more essential. As people live longer, the risk of developing chronic diseases increases, making it crucial to implement preventive strategies to maintain health and independence in old age. This not only improves the quality of life of older people, but also relieves the pressure on health systems (KALACHE, 1987).

Preventive medicine is also intrinsically linked to the promotion of mental health. The prevention of chronic diseases is not limited to the body alone, but extends to emotional well-being (PEREIRA et al., 2012). Stress management, the promotion of healthy social relationships and access to mental health services are essential elements of preventive medicine (HIRSCHLE et al., 2020). Mental health plays an important role in the prevention of chronic diseases, since chronic stress and depression, for example, are related to the development of physical health conditions (MESSIAS et al., 2020).
3 METHOD

This is research of a quantitative nature, with a descriptive and exploratory approach. Quantitative research is adequate to analyze the relationships between variables and to evaluate the extent of the importance of preventive medicine in the reduction of chronic diseases. The research is a field study (MARCONI; LAKATOS, 2011).

The sample was composed of 140 participants residing in municipalities of East Maranhão, these being: Afonso Cunha (4° 7' 59" S; 43°19' 25" O), Buriti de Inacia Vaz (3° 56' 31" S 42°55' 30"), Coelho Neto (4° 15' 20" S 43° 0' 53" O) and Duque Bacelar (4° 8' 56" S 42° 56' 57" O). Where we interviewed the population of interest in a random manner, where an initial conversation was held, to point out the objectives and character of the research. In addition, we present the term of free and informed consent - TCLE where they were asked for permission as to the registration of the information necessary for the elaboration of this research. The ETS will be in accordance with Resolution 466/12 of the National Health Council/Ministry of Health).

To carry out the data collection, we prepared a structured questionnaire, using Google Forms. The questionnaire contained questions related to participants' perception of preventive medicine, their health practices and experiences with chronic diseases. The questionnaire was validated by specialists in the area of health of the State University of Maranhão, besides Doctors and Nurses of the aforementioned municipalities.

After the elaboration of the questionnaire a training campaign of the interviewers was carried out to ensure consistency in the application of the questionnaire. Afterwards, the participants were invited to answer the questionnaire on-line by means of a link made available on social networks, in local health units and by other means of communication.

The data collected will be analyzed quantitatively using statistical techniques. Statistical tests will be used to assess the associations between variables, and descriptive statistical analyzes will be used to present the results in a clear and concise manner. It also used tools like: Mine-Tab, Excel and R-Studio to analyze the results.

4 RESULTS AND DISCUSSIONS

In all, 140 people residing in municipalities in East Maranhão were interviewed. The (Graph 1) presents the sample percentage of interviewees by sex. The results obtained show a discrepancy in the distribution between the sexes in the sample. Where specifically, 60% of respondents were female, while 40% were male, as illustrated in the (Graph 01). This difference in the representation of the sexes in the sample may have implications in the analysis of the results and in the interpretation of the data.
The Importance of Preventive Medicine in Reducing Chronic Diseases

It is important to comment that this difference may be relevant, since previous studies have suggested that the prevalence of chronic diseases may vary between men and women. For example, in some conditions, such as heart disease, men may have higher incidence rates, while in others, such as autoimmune disorders, women may be more affected. Therefore, the unequal distribution between the sexes in the sample may influence the perception of preventive medicine policies and their effectiveness in reducing chronic diseases, depending on how these diseases affect each group.

In view of the result we can highlight some aspects that can justify the discrepancy between genders being these:

**Variability in the Prevalence of Chronic Diseases:** The prevalence of chronic diseases can vary substantially between men and women. This is a widely recognized fact in the medical and epidemiological literature. The existence of these differences underscores the need for gender-sensitive approaches in preventive medicine, since strategies may need to be adapted to meet the specific needs of each group (COUTO et al., 2010).

**Examples of Gender Differences in Chronic Diseases:** Chronic diseases can affect men and women differently. For example, heart disease tends to affect men more, while autoimmune disorders, such as lupus and rheumatoid arthritis, are more common in women. These examples demonstrate that preventive medicine must take these differences into account to be effective (GARCIA, 2022).

**The Impact on the Perception of Preventive Medicine Policies:** The unequal distribution of gender in the sample can influence the perception of preventive medicine policies. Depending on how chronic diseases affect each gender group, prevention policies may be more or less relevant for men and women. This underlines the importance of addressing the perception of preventive medicine policies in a differentiated way, considering the gender context (GIOVANELLA et al., 2012).

**Need for Gender-Sensitive Policies:** Preventive medicine policies must be gender-sensitive, i.e. tailored to meet the specific needs of men and women. This may involve awareness strategies and targeted interventions that consider gender differences in incidence and response to chronic diseases (PINHEIRO et al., 2002).

At the same time, we asked the interviewees if they recognized the important role of preventive medicine in the health of the population, thus aiming to evaluate the awareness and understanding of those involved in relation to the practices of prevention of chronic diseases. And we obtained the following data contained in the (Graph 2)
The analysis of the results referring to the recognition of the role of preventive medicine in the health of the population, based on the data of Chart 2, is of great importance for understanding the awareness and understanding of the practices of prevention of chronic diseases among the interviewees.

The data indicates that the majority of the interviewees, 71%, do not recognize the role of preventive medicine in the health of the population. This is a significant result and deserves attention, as preventive medicine plays a crucial role in preventing chronic diseases and promoting public health.

The high percentage of respondents who do not recognize the role of preventive medicine suggests the need for more effective health education programs. Public awareness of the benefits of chronic disease prevention and the importance of preventive medicine should be a priority (BECKER, 2020; SANTOS, 2019).

The percentage of respondents (23%) who did not know how to answer the question may indicate a possible lack of understanding about the concept of preventive medicine. This highlights the importance of making information on disease prevention more accessible and understandable to the general public. Although it is a minority (7%), it is encouraging to see that a group recognizes the role of preventive medicine in the health of the population. This suggests that there is a core of conscious people who can be advocates of preventive medicine and help disseminate information.

It may be useful to analyze whether awareness of preventive medicine varies based on demographic factors such as gender and age. This would help direct health education strategies to specific groups that may have less knowledge about the subject. Lack of awareness about preventive medicine can have a direct impact on the adoption of preventive practices. If people do not recognize the importance of prevention, they may be less likely to adopt healthy habits and seek preventive services (BUSS, 2000).

The interviewees were then asked whether they had any chronic diseases, which needed medical follow-up. The following results were obtained from (Graph 3).
The Importance of Preventive Medicine in Reducing Chronic Diseases

The results obtained in the survey provide information about the prevalence of different health conditions among the interviewees. The results of the survey reveal that several chronic health conditions are common among the interviewees. Diabetes, Hypertension, Obesity, and Asthma are the most prevalent conditions, with occurrence rates of 20%, 21%, 25%, and 16%, respectively. These results highlight the importance of addressing these health conditions in prevention and healthcare strategies.

The rates of occurrence of conditions vary significantly. Obesity has the highest rate, followed by hypertension and diabetes. This may reflect global trends of increasing these conditions, which are often related to lifestyle habits such as diet and physical activity (MENDONÇA et al., 2004).

Cancer, stroke, Alzheimer's and asthma have relatively lower rates of occurrence in the sample. It is important to note that these conditions, although less common, can have significant impacts on quality of life and require specific attention and care.

The results reinforce the importance of preventive medicine and public awareness about the prevention of chronic diseases, especially those with higher rates of occurrence. Preventing and controlling these conditions can contribute significantly to improving the health of the population (HARIYONO et al., 2023).

Although the results provide an overview of the prevalence of conditions, it is important to remember that the approach to each condition is unique. Some conditions, such as diabetes and hypertension, can be managed through lifestyle changes, medication, and regular medical follow-up, while others, such as cancer, may require more specific treatments.

The data also highlights the challenges faced by public health systems in dealing with a variety of chronic conditions. Allocating resources and implementing effective health policies are essential to address these challenges in a comprehensive manner.

5 FINAL CONSIDERATIONS

The results show that preventive approaches such as vaccination, health education, disease screening and lifestyle interventions play a key role in the prevention of chronic diseases such as diabetes, cardiovascular disease and cancer. In addition, preventive medicine
The Importance of Preventive Medicine in Reducing Chronic Diseases

contributes to reducing the costs associated with treating these conditions, relieving the pressure on health systems.

The results indicate that there is a significant lack of awareness about the role of preventive medicine in the health of the population. This highlights the need for ongoing health education and awareness-raising efforts to promote the importance of preventive medicine in preventing chronic diseases and promoting public health. Understanding these results can be key to the development of effective health policies and chronic disease prevention strategies.

The results provide valuable information on the prevalence of health conditions in the sample. This data is crucial to guide public health policies, preventive medicine strategies, and health care plans to address these chronic conditions and improve the population’s quality of life.

The research results offer valuable insights into the gender distribution in the sample, awareness about preventive medicine and the prevalence of chronic health conditions. This information can be used to guide public health strategies, health education programs, and health care plans to address chronic diseases and promote a healthier population.

REFERENCES


The Importance of Preventive Medicine in Reducing Chronic Diseases


The Importance of Preventive Medicine in Reducing Chronic Diseases


