

A comprehensive view of the promotion and prevention of Chronic Non-Communicable Diseases in older adults at the Clemencia Foundation and the Sofia Ratinoff Nursing Home

Una visión integral de la promoción y prevención de Enfermedades Crónicas No Transmisibles en adultos mayores de la Fundación Clemencia y el Asilo Sofia Ratinoff

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ABSTRACT

Health promotion and disease prevention in older adults are essential to improve their quality of life and reduce health care costs in this growing population. A diagnostic study in this area focuses on identifying specific health needs, assessing risk factors, and proposing effective interventions. The objective of this study is to characterize the current state of health promotion and NCD prevention in older adults at the Clemencia Foundation and the Sofia Ratinoff Asylum in the city of Guayaquil. This research is developed by students and teachers of the Emergency Medical career of the Instituto Superior Universitario Espiritu Santo, as part of the project "Promotion and control of NCDs in older adults". The study uses a combination of quantitative and qualitative methods, including surveys, interviews and statistical data analysis. The population studied includes older adults and health professionals from the Clemencia Foundation and the Sofia Ratinoff Asylum, providing a comprehensive view of their health conditions and needs. The results conclude

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that chronic diseases such as hypertension, diabetes and arthritis are common in older adults, as are respiratory and mental health problems. Risk factors identified include poor dietary habits, lack of physical activity, poor vital sign monitoring, and limited participation of older adults in health promotion programs.

Key words: older adults, promotion, prevention, Chronic Non-Communicable Diseases.

RESUMEN

La promoción de la salud y la prevención de enfermedades en los adultos mayores son fundamentales para mejorar su calidad de vida y reducir los costos de atención médica en esta población en crecimiento. Un estudio diagnóstico en este ámbito se centra en identificar las necesidades específicas de salud, evaluar los factores de riesgo y proponer intervenciones efectivas. El objetivo de este estudio es caracterizar el estado actual de la promoción de la salud y la prevención de ECNT en los adultos mayores de la Fundación Clemencia y el Asilo Sofía Ratinoff de la Ciudad de Guayaquil. Esta investigación es desarrollada por estudiantes y docentes de la carrera de Emergencia Médica del Instituto Superior Universitario Espíritu Santo, como parte del proyecto "Promoción y control de ECNT en los adultos mayores". El estudio utiliza una combinación de métodos cuantitativos y cualitativos, incluyendo encuestas, entrevistas y análisis de datos estadísticos. La población estudiada incluye a adultos mayores y profesionales de la salud de la Fundación Clemencia y el Asilo Sofía Ratinoff, proporcionando una visión integral de sus condiciones de salud y necesidades. Los resultados concluyen que las enfermedades crónicas como la hipertensión, diabetes y artritis son comunes en los adultos mayores, al igual que los problemas respiratorios y de salud mental. Los factores de riesgo identificados incluyen malos hábitos alimenticios, falta de actividad física, escaso control de los signos vitales y una limitada participación de los adultos mayores en programas de promoción de la salud.

Palabras clave: adultos mayores, promoción, prevención, Enfermedades Crónicas no Transmisibles

INTRODUCTION

The growing incidence and prevalence of Chronic Non-Communicable Diseases (NCDs) not only represent a significant social harm, especially in the poorest populations, but also constitute a major obstacle to human development. Attention and concerted action are essential to address this problem and its socioeconomic implications.

Data obtained from the (World Health Organization, 2023), indicate that:

- Non-communicable diseases (NCDs) kill 41 million people each year, which is equivalent to 74% of all deaths in the world.
- Seventy-seven percent of all deaths due to NCDs are concentrated in lower middle-income countries.
- Cardiovascular diseases account for the majority of NCD deaths (17.9 million people each year), followed by cancer (9.3 million), chronic respiratory diseases (4.1 million) and diabetes (2.0 million, including deaths from diabetic nephropathy).

To reduce the impact of NCDs on both individuals and society, a comprehensive approach is needed in which all sectors, including health, finance, transportation, education, agriculture, planning, and others, work together to reduce the risks associated with NCDs and promote interventions to prevent and control them (World Health Organization, 2023).

The adult population is disproportionately affected by NCDs. Lack of access to adequate health care, together with social determinants of health, housing and food security, exacerbate the vulnerability of this population to NCDs. The prevalence of risk factors such as smoking, poor diet, physical inactivity and harmful alcohol consumption is higher in these populations, thus increasing the incidence of NCDs.

Health promotion and prevention of chronic noncommunicable diseases in older adults is an imperative need to improve quality of life, reduce the economic and social burden of disease, and promote health equity. The objective of this research is to characterize the current state of health promotion and NCD prevention in older adults of the Clemencia Foundation and the Sofia Ratinoff Asylum in the city of Guayaquil.

Health promotion and prevention of chronic noncommunicable diseases (NCDs) in older adults is a crucial strategy to improve quality of life and reduce the burden on health systems and the economy.

In Ecuador, according to data provided by the National Institute of Statistics and Census of Ecuador (INEC) in 2022, chronic noncommunicable diseases were among the top ten causes of death in the country; ischemic heart disease is the leading cause of death in men with 7,224 deaths and women with 5,778, giving a total of 13,13,224 deaths. 778 giving a total of 13,002 deaths corresponding to (12.4%), these data reveal that ischemic heart disease, diabetes mellitus, hypertensive disease, cerebrovascular disease and

chronic diseases of the lower respiratory tract are among the top ten causes of death in the country (Azua, Macías, & Ortega, 2023).

Chronic noncommunicable diseases in older adults generate significant costs for health systems due to the need for continuous medical care, frequent hospitalizations, and prolonged treatments. In addition, functional disability and dependency resulting from these diseases affect families and communities, increasing the burden on caregivers and reducing economic productivity.

Health promotion and effective prevention can help mitigate these effects, allowing older adults to live longer with a better quality of life. According to the World Health Organization, health promotion "encompasses learning opportunities aimed at enhancing health literacy, includes improving the population's knowledge and developing personal skills that lead to higher levels of individual and collective health" cited by (Ecuador, Ministry of Public Health, 2019).

For (Aliaga, Cuba, & Meza, 2016), disease promotion and prevention activities should be addressed considering the macro-social, micro-social, interpersonal and individual scenario, and should be directed not only to the risk of getting sick, but to the alteration of the function that produces the disease, and other conditions that may deteriorate the health of the older adult, such as frailty, falls, and iatrogenic complications. They emphasize the importance of giving the elderly the necessary guidelines to exercise better control over their health and improve it, trying to maintain at all times their autonomy, their quality of life and, above all, always respecting their values and preferences.

Health promotion and NCD prevention should be accessible to all older adults, regardless of their socioeconomic level. Health inequalities are more pronounced in older adults, especially those with low incomes, who often have less access to health services and face greater barriers to adopting healthy lifestyles. Inclusive and equitable policies are needed to ensure that all older adults can benefit from preventive interventions.

MATERIALS AND METHODS

The research follows a polymodal methodology, combining qualitative and quantitative methods and techniques, which allows the authors not only to obtain a comprehensive diagnosis of the current situation, but also provides a solid basis for the development of effective and sustainable interventions in health promotion and disease prevention in older adults.

The study is exploratory in nature, seeking to discover new factors or relationships that have not been previously documented in this specific population. This includes identifying gaps in health services and areas not covered by current programs.

It is a field research, because data collection is carried out directly at the Clemencia Foundation and the Sofia Ratinoff Asylum, allowing an accurate contextualization and realistic understanding of the living and health conditions of older adults.

In addition, a hermeneutic methodology is followed, which focuses on the interpretation of qualitative data to understand the underlying meanings and lived experiences of older adults.

Among the theoretical methods, the analytical-synthetic and inductive-deductive methods were used; among the empirical methods, observation, survey and interview were used; as a mathematical-statistical method, the percentage analysis was used for the statistical processing of the surveys applied to the older adults.

The study population consisted of 22 older adults and three health professionals from the Clemencia Foundation and the Sofia Ratinoff Asylum in the city of Guayaquil. The Clemencia Foundation and the Sofia Ratinoff de Solimano Asylum are dedicated to the integral care of the elderly in a state of abandonment, indigence, disability, high grade Alzheimer's and low economic resources who live and sleep in the streets of the country; hence the importance of this study.

Interventions.

To diagnose the promotion and prevention of chronic noncommunicable diseases (NCDs) in older adults, it was necessary to determine indicators covering aspects of health, behavior, access to services, and patient satisfaction. The research instruments were developed on the basis of these indicators. The dimensions and indicators to be evaluated are:

Health Indicators.

- Levels of control of blood pressure, blood glucose, cholesterol and other key biomedical markers in older adults.
- Health complications: frequency of NCD-related complications, such as cardiovascular events, strokes, amputations due to diabetes, etc.
- Nutritional status: nutritional deficiencies, such as body mass index (BMI), vitamin and mineral levels, and other nutritional markers.

Prevention and Lifestyle Indicators.

- Physical activity: percentage of older adults who engage in regular physical activity, including types and frequency of exercise.
- Dietary habits: assessment of diet, including consumption of fruits, vegetables, processed foods, sugar and salt.
- Smoking and alcohol consumption: prevalence of smoking and alcohol consumption among older adults, and participation in cessation programs.
- Medication adherence: level of adherence of older adults to their prescribed medication regimens.

Health promotion indicator.

- Participation in health promotion programs: participation in educational programs, workshops, and health promotion activities.
- Program coverage: percentage of older adults covered by NCD promotion and prevention programs.
- Program effectiveness: evaluation of the impact of interventions in reducing the prevalence and complications of NCDs.

Satisfaction and Quality of Life indicators.

- Patient satisfaction: level of satisfaction of older adults with the health services and health promotion programs received.
- Quality of life: measurement of older adults' perception of their quality of life.
- Emotional well-being: mental health indicators, such as levels of depression, anxiety and emotional satisfaction.
- Autonomy and functionality: assessment of older adults' ability to perform activities of daily living (ADLs) and their level of independence.

RESULTS

The question on the frequency of vital sign monitoring in the older adult population reveals important data on health care in this population (see Figure 1). Forty-five percent of the older adult population surveyed indicate that they regularly monitor their vital signs; this data suggests that almost half of older adults receive regular monitoring of their vital signs, which is critical for early detection of health problems and management of chronic diseases. Regular monitoring allows for adjustment of treatments and preventive measures, which is crucial in the care of older adults.

The most troubling finding, however, is that approximately one-third of older adults (32%) report not receiving any vital sign monitoring; lack of monitoring can lead to late diagnosis of medical conditions, increased complications and, ultimately, a deterioration in quality of life.

According to the respondents, the vital signs they check most often are temperature (45%) and blood pressure levels (36%); with very low values are respiration and pulse; they argue that they usually do so when they are sick.

Body temperature is a critical vital sign that can indicate the presence of infection or inflammation. The fact that almost half of the surveyed older adults receive regular temperature monitoring is positive, as it allows early detection of common diseases, such as respiratory or urinary tract infections, which are prevalent in this population.

Blood pressure is another crucial vital sign, especially in older adults, given the high risk of hypertension and cardiovascular disease in this population. Regular blood pressure monitoring can prevent serious adverse events such as heart attacks and strokes. However, the percentage obtained in this question is relatively low.

On the other hand, the data indicate that respiration and pulse are the vital signs that

are least monitored; this is of concern because these signs can provide essential information about lung function and heart health.

The older adults surveyed indicate suffering from chronic diseases such as high blood pressure (50%), digestive diseases (41%), diabetes (36%), osteoporosis (27%), heart disease (23%).

Other common health problems of older adults, according to the results of this question, are respiratory problems such as common flu, pneumonias and bronchopneumonias (See Figure 3). Respiratory health problems pose a significant threat to older adults. The survey reveals that these problems are common, underscoring the need to improve prevention, detection and treatment strategies.

According to the results obtained, only two older adults, representing 9% of the population, have malnutrition (see Figure 3), mainly related to low levels of some vitamins and minerals.

With regard to the prevention and lifestyle indicator, the results obtained are as follows: Physical activity is an essential component for maintaining health and well-being at all ages, especially in older adults. The survey results provide a clear picture of the frequency and type of physical activity performed by older adults, revealing trends and areas of concern that need to be addressed. Only 18% of older adults report always being physically active, 36% regularly, and 46% report never being physically; the most common activities are walking and dancing.

The survey highlights an important concern, a large number of older adults do not participate in physical activity on a regular basis, which is detrimental to their health and well-being. Walking and dancing, although popular activities among those who exercise, are not enough to counteract certain health problems.

Regarding eating habits, 51% consider them to be good, 32% indicate that they sometimes practice good eating habits and 14% agree that they never do so; however, 42% report liking fast foods and carbonated beverages. These data underscore the complexity of eating habits among older adults and the need for promotional strategies to promote healthy eating.

Similarly, older adults indicate that they only consume prescribed medications because they are given to them at the foundation. The provision of medications by the foundation can help prevent self-medication and inappropriate use of medications. This is crucial, as self-medication can lead to adverse effects, dangerous drug interactions, and ineffectiveness of treatment.

Health promotion indicator.

Older adults report never having participated in health promotion programs. The lack of participation of older adults in health promotion programs is a matter of concern that has several implications for their well-being and quality of life. Analyzing the reasons and consequences of this lack of participation, as well as proposing possible solutions, is crucial to improve the health of this population.

However, 77% of the surveyed older adults consider that health education for older adults should be a priority for every Health System. Health promotion helps to prevent

chronic diseases through education on healthy habits, promotion of regular exercise, and proper nutrition.

Satisfaction and Quality of Life Indicators.

The results related to the satisfaction and quality of life of the older adults are as follows: 9% are very satisfied, 36% feel satisfied with the services offered by the foundation, the rest of the respondents feel little or not at all satisfied. This is of concern, as a lack of satisfaction may correlate with a low quality of life and poor overall well-being, and may manifest itself in physical and mental health problems, less participation in social and recreational activities, and a higher incidence of feelings of isolation and depression.

The results of the survey on the emotional state of older adults reveal a worrisome situation, with a high percentage of this population experiencing suboptimal levels of emotional well-being.

Half of the older adults surveyed (50%) report a fair emotional state, suggesting that although they are not in a state of critical well-being, but neither do they enjoy full emotional well-being. The emotional state of 27% of the population is good, and 23% of older adults have a poor emotional state; alarmingly, this group is likely dealing with high levels of depression and anxiety, which can have a significant impact on their quality of life and overall well-being.

The ability of older adults to perform activities of daily living (ADLs) autonomously and independently is a crucial indicator of their overall quality of life and well-being. The survey results show that only 23% of older adults report performing all of their activities independently, indicating a significant concern; lack of regular exercise can lead to decreased muscle strength and mobility, making it more difficult for older adults to perform ADLs independently.

Results of the interview conducted with the Foundation's Health Professionals.

Regarding the prevalence of NCDs in the Foundation's older adults, the interviewees indicated that they are hypertension, diabetes, digestive and cardiac diseases. However, they state that older adults often have multiple comorbidities that require individualized attention to ensure that all health problems are treated effectively and consistently.

They are also aware of the diversity of health problems that affect older adults and in particular respiratory problems; therefore, they are always on the lookout for respiratory or other less common symptoms, take vital signs frequently, and ask specific questions to identify any health problems.

The information obtained indicates that there is a significant disparity between the response of the Foundation's health professionals and the older adults who indicated in the survey that vital signs are checked mainly when they are sick. This is a critical issue that warrants further analysis; and may be due to a reactive approach, rather than a preventive one, which limits opportunities for early detection and proactive management of health problems.

Regarding the importance of physical activity in this population, the interviewees consider that it is an essential component for maintaining the health and well-being of older adults; however, they admit that, due to their condition, the frequency and type

of physical activity is very limited. This information highlights an important concern, because physical inactivity contributes to a higher incidence of chronic diseases, increases the risk of falls and fractures, and can accelerate the aging process and loss of independence.

The interviewees accept the fact that they do not have health promotion programs, but affirm that they do carry out activities with older adults in celebration of the World Day against Cancer, Hypertension, the fight against Depression, among others.

The lack of health promotion programs can have a negative impact on the quality of life of older adults, due to the lack of addressing the problems associated with NCDs that prevail among this population in the Foundation; and to unaddressed emotional problems such as depression, anxiety, and social isolation.

Both the older adults and the professionals interviewed are aware that health promotion helps prevent chronic diseases, through education about healthy habits, promotion of regular exercise, and proper nutrition.

Participating in these programs can significantly improve the quality of life of older adults by providing tools and knowledge to better manage their health and well-being.

On the ability of older adults to perform activities of daily living autonomously and independently, interviewees believe that the vast majority of older adults in the Foundation have some autonomy. According to interviewees, the inability to perform ADLs independently is related to physical health problems, chronic diseases, muscle weakness, and cognitive impairment.

DISCUSSION

There is a significant disparity in access to health monitoring among older adults; the approach taken is not preventive, failing to take advantage of early intervention opportunities that can prevent disease progression and reduce the need for more intensive treatment.

The chronic non-communicable diseases (NCDs) that are most prevalent in older adults include arterial hypertension, diabetes mellitus, digestive, cardiovascular, chronic respiratory and osteoarticular diseases such as arthritis.

The Foundation develops health promotion actions, but in many cases they do not respond to the specific needs of older adults and do not consider the physical, cognitive and emotional limitations of this population, which is why older adults feel that their participation in this type of program is very limited.

Health promotion and disease prevention in older adults are essential components to improve quality of life and reduce health care costs in this growing population.

For the Foundation, improving the quality of service, offering enriching activities, and ensuring effective communication and participation of older adults in decision making are crucial steps to increase satisfaction and improve the quality of life of this population.

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