

Prevalence and determinants of self-reported chronic disease diagnoses among elderly persons in South Africa

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Background

Chronic diseases tend to affect the quality of life for elderly persons worldwide, especially in resource-constrained developing countries. The increasing life expectancy and decreasing fertility rates have resulted in ageing populations globally. Ageing is identified as a risk factor for the emergence of multiple chronic diseases. In spite of the projected impact of population ageing, which will increase the burden of diseases related to chronic and multiple chronic conditions, there has been limited research on this matter in South Africa, especially on elderly persons aged 60 years and older, and on the implications for health systems (Daviaud *et al.*, 2019: 174). A report by the United Nations states that the proportion of elderly people was 9% in developing countries and 22% in developed countries (UNDP, 2015). The elderly population of Nigeria aged 60 and older was estimated to be 9.4 million people in 2020. The numbers of the elderly population increased by 740 000 people between 2018 to 2022 (Statista Research Department., 2022). As compared to South Africa, the elderly population aged 60 and older was estimated to be 5,43 million, which saw an increase of 2.1% between 2002 and 2020 (Statistics South Africa., 2020).

South Africa as well as other Sub-Saharan African countries are undergoing epidemiological transition, whereby they are experiencing a decline in the prevalence of many infectious diseases and seeing an increase of deaths caused by non-communicable diseases (Maiyaki, & Garbati, 2014:1). Moreover, non-communicable diseases all together resulted in 74% of deaths globally in the same year. (World Health Organization., 2020). The health of elderly persons is a universal population health concern. Non-communicable diseases and other health issues have reduced the quality of life for elderly persons. Deaths due to non-communicable diseases rise dramatically at older ages for both males and females due to the increasing incidence of neoplasms, cardiovascular

diseases and ischaemic heart diseases. In the case of elderly persons (aged 60 - 64) for males, 72.1% of deaths were due to NCDs and just above 79% for female elderly persons (Statistics South Africa., 2021:34 - 36).

Main Objective

The main objective of the study is to examine the prevalence and determinants of selected chronic diseases among elderly persons in South Africa.

Specific objective

The study aims to answer the following specific objectives:

- To examine the prevalence of selected chronic diseases among elderly persons in South Africa.
- To investigate the socio-demographic factors associated with the selected chronic diseases.

Data Source

The study used data from the 2019 General Household Survey (GHS). According to Statistics South Africa (2019), the GHS was introduced in 2002 and it replaced the 1992 October Household Survey (OHS). The General Household Survey serves as a tool that traces the progress of development in South Africa. All private households in all nine provinces of South Africa are the target population of this survey. The survey looks at the level of development and quality of services in several key service sectors such as social security, health, education, housing, disability, household income, and access to food (Statistics South Africa, 2019). A total of 21 908 households were successfully interviewed during face-to-face interviews (Statistics South Africa, 2019). The survey utilized a multi-stage sample design based on a stratified design with probability proportional to size selection at the first stage of primary sampling units (PSUs); at the second stage, it utilized a sampling of dwelling units (DUs) with systematic sampling and allocated the samples to the provinces (Statistics South Africa, 2019). According to Statistics South Africa (2019), the national response rate for the survey is 88.6%.

Method of Analysis

Data analysis was done in three stages including univariate, bivariate, and multivariate. Descriptive statistics was the first part of the analysis and was used to describe the study population. Frequency tables and percentages were utilised to describe the study population. At the bivariate analysis level, a chi-square test (χ^2) was utilized to explore the association between chronic diseases and functional limitations for each of the selected background characteristics. At this level, selected chronic diseases were studied. At the multivariate level, the study used logistic regression to analyse

the relationship between having the outcome variable and the selected background characteristics. Multivariate logistic regression was employed due to the binary nature of the dependent variable. Data were analysed using Stata version 16 (StataCorp, 2019).

Results

The study found out that 50.2% of elderly persons reported being diagnosed with the selected chronic conditions. The majority (63.8%) of elderly persons reported that they were diagnosed with hypertension, followed by 24.6% diagnosed with arthritis and 6.5% diagnosed with diabetes. Only 1.7% of elderly persons reported that they were diagnosed with cancer, and 3.3% with stroke. The study findings showed that there was an association between the selected chronic conditions and the following factors: age, sex, population group, marital status, educational level, disability status, household composition, and province. These factors were statistically significant at $p < 0.000$. The age group (70-74) had the highest prevalence (57.6%) of being diagnosed with chronic conditions followed by those aged 80 years and older with a prevalence of 55.5%. In addition, the findings showed that females had the highest prevalence, (55.7%), of being diagnosed with chronic conditions compared to males. The Black population group had the highest prevalence of being diagnosed with chronic conditions (54.9%), while the White population group had the lowest prevalence of being diagnosed with chronic conditions (40.5%). Never-married persons had a higher prevalence of being diagnosed with chronic conditions (49.0%), while those who were previously married had the lowest prevalence of 5.9%.

In terms of educational level, persons whose highest level of educational attainment was primary education had the highest prevalence of being diagnosed with chronic conditions (54.4%), while those with higher education had the lowest prevalence of 41.1%. Furthermore, persons with a lot of difficulty in any of the six disability domains had the highest prevalence of being diagnosed with selected chronic conditions (57%), while those with no difficulty had the lowest prevalence of being diagnosed with selected chronic conditions (45.7%). Looking at the household composition, persons from female-headed extended households had the highest prevalence (58.8%) of being diagnosed with selected chronic conditions, while those from complex households had the second-lowest prevalence of being diagnosed with chronic conditions (45%). In terms of geographical indicators, persons from traditional areas had the highest prevalence (52.0%) of being diagnosed with selected chronic conditions, while those from urban areas had the lowest prevalence of being diagnosed with chronic conditions, at 49.2%. Persons from KwaZulu-Natal had the highest prevalence (57.3%) of being diagnosed with selected chronic conditions, while those from Limpopo province had the lowest prevalence of being diagnosed with chronic conditions at 37.1%.

Moreover, the findings show that persons aged 70-74 years were 1.65 [95% CI: 1.39–1.97] times more likely Females were 1.78 times [95% CI: 1.54–2.06] more likely to be diagnosed with selected chronic conditions compared to males. In terms of the population group, white elderly persons were 0.39 [95% CI: 0.30–0.49] times less likely to be diagnosed with selected chronic conditions compared to the Black population group. In addition, persons who were previously married were 1.75 [95% CI: 1.27–2.42] times more likely to be diagnosed with selected chronic conditions compared to those who were cohabiting. Persons whose highest educational level was primary education were 1.19 [95% CI: 1.00–1.40] times more likely to be diagnosed with selected chronic conditions compared to those with no education. Persons whose disability status was ‘a lot of difficulty’ were 1.32 [95% CI: 1.09–1.59] times more likely to be diagnosed with selected chronic conditions compared to persons whose disability status was ‘no difficulty’. Being diagnosed with chronic conditions increased with the wealth status. Persons from poor households were 0.73 [95% CI: 0.59–0.89] times less likely to be diagnosed with selected chronic conditions compared to those from rich households. The findings further showed that household composition was an important predictor of being diagnosed with the selected chronic conditions. Persons who resided in lone female-headed households were 0.52 [95% CI: 0.38–0.73] times less likely to be diagnosed with selected chronic conditions compared to those from male-headed nuclear households. In terms of the province, persons who resided in Western Cape were 2.01 [95% CI: 1.45–2.80] times more like to be diagnosed with selected chronic conditions compared to those from Limpopo province.

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