ORIGINAL ARTICLE

Determination of the Incidence and Prevalence Rates of Chronic Diseases among Old age at Al-Russafa District in Baghdad City

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ABSTRACT

Objectives: To evaluate the incidence and prevalence rates of chronic diseases among old age at Al-Russafa District in Baghdad City.

Methodology: A descriptive design, using the evaluation approach, is employed to determine of the incidence and prevalence rates of chronic diseases among old age at al-Russafa District in Baghdad City from October10th 2021 to April 2nd 2022. A non-probability, convenient sample of (672214) old age, is selected for the purpose of the study. All subjects have signed consent form to present their agreement for participation in the study. The confidentiality of the data is also safeguard and they will be securely maintained during and after conducting the study. A questionnaire is constructed for the purpose of the study through review of related literature. It is consisted of (3) main parts; old age demographic characteristics, old age chronic diseases and the incidence and the prevalence of old age chronic diseases. Content validity is determined for the study instrument through panel of experts and internal consistency reliability is obtained for the study instrument through split-half technique and the computation of Cronbach alpha correlation coefficient in a pilot study. Data are gathered through the use of the study instrument as mean of data collection and analyzed through the application of descriptive statistical data analysis and inferential statistical data analysis approaches.

Results: The study results depict that old age chronic diseases are accounted for cardiovascular and chronic respiratory diseases at Al-Russafa District in Baghdad City. Males old age have been prominently at greater risk to the incidence and the prevalence of such diseases more than females at Al-Russafa District in Baghdad City.

Conclusion: The study concludes that high incidence rates are accounted for chronic respiratory diseases, cardiovascular diseases, arterial hypertension, kidney diseases, diabetes mellitus and arthritis at Al-Russafa District in Baghdad City and high prevalence rates are accounted for chronic respiratory diseases, cardiovascular diseases, arterial hypertension, kidney diseases and diabetes mellitus at Al-Russafa District in Baghdad City.

Recommendations: The study recommends that screening and early detection programs should be planned and implemented on regular base for the finding of such subpopulation-based health problems. Further and nation-wide research can be conducted on large scale sample size and different settings.

Keywords: Determination, Incidence Rate, Prevalence Rate, Chronic Diseases, Old age

INTRODUCTION

Chronic diseases in old age can have an impact on people's quality of life, as evidenced by the fact that each of the top ten chronic diseases, such as high blood pressure (58 percent), high cholesterol (47 percent), arthritis (31 percent), coronary heart disease (29 percent), diabetes (27 percent), and chronic kidney disease (CKD), affects 18 percent of seniors. (1). According to the Centers for Disease Control and Prevention (CDC), preventative actions can avert much of the illness, disability, and even mortality associated with chronic disease. The CDC recommends living a healthy lifestyle that includes eating well, exercising regularly, and avoiding tobacco, as well as scheduling frequent early detection and testing such as breast, prostate, and cervical cancer screenings, diabetes and cholesterol tests, and bone density scans (2). Chronic diseases are conditions that last for a long time and have a long-term impact. People's quality of life may be affected by their social and economic implications. Chronic illnesses are becoming more prevalent, and they are a top issue for health-care reform. Multi-morbidity refers to the existence of two or more chronic illnesses in a person at the same time (3). By 2030, the worldwide population of adults aged 60 and more will have increased by 56%, and by 2050, it is expected to have more than doubled. In 2050, the number of individuals aged 65 and up is expected to nearly (1.5) billion, with the majority of the growth occurring in emerging countries. In order to meet the preventive healthcare and medical demands of the aged population, these demographic shifts necessitate a shift in global focus (4).

METHODOLOGY

A descriptive design, using the evaluation approach, is employed to determine the prevalence and the incidence rates of old age chronic diseases at Al-Russafa District in Baghdad City from October10th 2021 to April 2nd 2022. A non-probability, convenient sample of (672214) old age, is selected for the purpose of the study. All subjects have signed consent form to present their agreement for participation in the study. The confidentiality of the data is also safeguard and they will be securely maintained during and after conducting the study. A questionnaire is constructed for the purpose of the study through review of related literature. It is consisted of (3) main parts; old age demographic characteristics, old age chronic diseases and the incidence and the prevalence of old age chronic diseases. Content validity is determined for the study instrument through panel of experts and internal consistency reliability is obtained for the study instrument through split-half technique and the computation of Cronbach alpha correlation coefficient in a pilot study. Data are gathered through the use of the study instrument as mean of data collection and analyzed through the application of descriptive statistical data analysis and inferential statistical data analysis approaches.

RESULTS

Table 1: Incidence Rate of Old Age Chronic Diseases in Al-Russafa District

a. 2016

Year	Type of Chronic Diseases	Incidence Rate	
		Male	Female
2016	Diabetes Mellitus	(1.62%)	(1.43%)
	Insulin dependent diabetes	(0.04%)	(0.04%)
	Cardiovascular	(3.96%)	(3.89%)
	Arterial hypertension	(3.01%)	(2.96%)
	Chronic Respiratory	(3.03%)	(2.98%)
	Kidney Diseases	(3.05%)	(2.81%)
	Depression	(0.008%)	(0.003)
	Arthritis	(1.11%)	(0.84%)

Results, out of this table, show that the incidence rate is accounted for cardiovascular diseases and male old age are at greater exposure to such diseases in 2016 at Al-Russafa District.

Table 2: b. 2017

Year	Type of Chronic Diseases	Incidence Rate	
		Male	Female
2017	Diabetes Mellitus	(2.09%)	(1.97%)
	Insulin dependent diabetes	(0.08%)	(0.07%)
	Cardiovascular	(3.92%)	(3.78%)
	Arterial hypertension	(3.22%)	(3.14%)
	Chronic Respiratory	(2.27%)	(2.02%)
	Kidney Diseases	(3.15%)	(2.86%)
	Depression	(0.02%)	(0.05%)
	Arthritis	(1.02%)	(0.92%)

Results, out of this table, show that the incidence rate is accounted for cardiovascular diseases and male old age are at greater exposure to such diseases in 2017 at Al-Russafa District.

Table 3: c. 2018

Year	Type of Chronic Diseases	Incidence Rate	
		Male	Female
2018	Diabetes Mellitus	(2.27%)	(1.97%)
	Insulin dependent diabetes	(0.09%)	(0.08%)
	Cardiovascular	(3.75%)	(3.34%)
	Arterial hypertension	(3.02%)	(2.65%)
	Chronic Respiratory	(1.84%)	(1.80%)
	Kidney Diseases	(2.58%)	(2.64%)
	Depression	(0.09%)	(0.07%)
	Arthritis	(1.01%)	(0.92%)

Results, out of this table, show that the incidence rate is accounted for cardiovascular diseases and male old age are at greater exposure to such diseases in 2018 at Al-Russafa District.

Table 4: d. 2019

Year	Type of Chronic Diseases	Incidence Rate	
		Male	Female
2019	Diabetes Mellitus	(2.72%)	(2.39%)
	Insulin dependent diabetes	(0.03%)	(0.01%)
	Cardiovascular	(3.23%)	(3.07%)
	Arterial hypertension	(2.65%)	(2.60%)
	Chronic Respiratory	(2.02%)	(1.79%)
	Kidney Diseases	(2.97%)	(2.10%)
	Depression	(0.08%)	(0.14%)
	Arthritis	(0.64%)	(0.49%)

Results, out of this table, show that the incidence rate is accounted for cardiovascular diseases and male old age are at greater exposure to such diseases in 2019 at Al-Russafa District.

Table 5: e. 2020

Year	Type of Chronic Diseases	Incidence Rate	
		Male	Female
2020	Diabetes Mellitus	(2.64%)	(2.27%)
	Insulin dependent diabetes	(0.14%)	(0.10%)
	Cardiovascular	(2.91%)	(2.52%)
	Arterial hypertension	(2.46%)	(2.16%)
	Chronic Respiratory	(12.52%)	(10.16%)
	Kidney Diseases	(2.90%)	(2.64%)
	Depression	(0.06%)	(0.13%)
	Arthritis	(0.62%)	(0.41%)

Table 2: Prevalence Rate of Old Age Chronic Diseases in Al-Russafa District

Year	Type of Chronic Diseases	Prevalence Rate	
		Male	Female
2016-2020	Diabetes Mellitus	(2.27%)	(1.99%)
	Insulin dependent diabetes	(0.07%)	(0.06%)
	Cardiovascular	(3.56%)	(3.32%)
	Arterial hypertension	(2.85%)	(2.70%)
	Chronic Respiratory	(4.56%)	(3.91%)
	Kidney Diseases	(2.96%)	(2.81%)
	Depression	(0.05%)	(0.08%)
	Arthritis	(0.87%)	(0.69%)

Results, out of this table, show that the incidence rate is accounted for cardiovascular diseases and male old age are at greater exposure to such diseases in 2020 at Al-Russafa District.

Results, out of this table, depict that the prevalence rate of the old age chronic diseases is accounted for chronic respiratory diseases and the greater proportion is accounted for males.

DISCUSSION OF THE RESULTS
Part I: Discussion of the Incidence Rate of Old Age Chronic Diseases at
Al-Russafa District in Baghdad City 2016-2020

Analysis of the incidence rate of old age chronic diseases at Al-Russafa District in Baghdad City signposts that most chronic diseases with high incidence rates are chronic respiratory diseases, cardiovascular diseases, arterial hypertension, kidney diseases, diabetes mellitus and arthritis in 2016-2020. It has been documented in the literature that the incidence of CVD, including CHD, HF, and stroke or intra-cerebral hemorrhage, increases from (4-10) per 1,000 person-years in (65-75) year per 1,000 person-years in adults aged (85-94) years (5).

Part II: Discussion of the Prevalence Rate of Old Age Chronic Diseases
at Al-Russafa District in Baghdad City 2016-2020

Analysis of the prevalence rate of old age chronic diseases at Al-Russafa District in Baghdad City indicates that most chronic diseases with high prevalence rates are chronic respiratory diseases, cardiovascular diseases, arterial hypertension, kidney diseases and diabetes mellitus in 2016-2020. It has been reported, in the literature, that the prevalence of CVD, including hypertension, CHD, HF, and stroke, increases from about (40%) in men and women (60-79) years of age, and to (79%-86%) among those aged (80) years or older (5).

CONCLUSION AND RECOMMENDATIONS
The study concludes that high incidence rates are accounted for chronic respiratory diseases, cardiovascular diseases, arterial hypertension, kidney diseases, diabetes mellitus and arthritis at Al-Russafa Districts in Baghdad City and high prevalence rates are accounted for chronic respiratory diseases, cardiovascular diseases, arterial hypertension, kidney diseases and diabetes mellitus at both Al-Russafa Districts in Baghdad City.

The study recommends that screening and early detection programs should be planned and implemented on regular base for the finding of such subpopulation-based health problems. Further and nation-wide research can be conducted on large scale sample size and different settings.

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