THE EFFECT OF HEALTH QUALITY OF LIFE FOR ELDERLY PEOPLE WITH COMMON CHRONIC DISEASES IN PATIENTS ATTENDING PRIMARY HEALTH CARE CENTERS AT SAUDI ARABIA 2022

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Abstract:

Background: Quality of life (QoL) is essential for maintaining a healthy, balanced lifestyle, especially among elderly people with common chronic diseases. Saudi Arabia (SA) launched a health sector transformation program as part of the nationwide Vision 2030 initiative to ensure the sustainable development of efficient healthcare services, aiming to improve health by increasing well-being and quality of life. More investigation into the current status of health of elderly people with chronic diseases services provided to elderly people and future needs to optimize services and improve quality of life is needed. This was narratively discussed by experts from different health of elderly people services in Saudi Arabia. Comprehensive health of elderly people services including orthopedic, occupational, cardiac, pulmonary, critical care, perioperative, hearing and speech, disorders, and vocational . Health Quality of Life for elderly people services in Saudi Arabia, as in other countries, are suboptimal for elderly people in health programs. To optimize the quality of life of elderly people with chronic diseases, health Quality of Life for elderly services should be tailored based on the unique requirements of each service and its serving patients.

Aim of the study: To assessment the effect of Health Quality of Life for elderly people with Common Chronic Diseases in Patients Attending Primary Health Care Centers at Saudi Arabia 2022.

Method: This cross-sectional study was carried out on 300 elderly people with age ≥ 60 years. Quality of life was assessed using Arabic translation of WHO Quality of Life-Brief (WHOQOL) questionnaire. Screening of cardiac diseases and depression was done using Framingham and PHQ-2 questionnaires, respectively.

Results: In our study showed that the majority of participants (51.0%) were within the age group 70-80 years regarding work more than half of the participants (68.0%) were not working while work were (32.0%), regarding the family caregiver the most of participant answer Yes were (82.0%) while No were (18.0%) ,

Conclusion: should be given the health quality of Life for elderly people care, and healthy lifestyle behaviors to enhance health-related quality of life in elderly people with chronic illness. elderly people-specific health services and interventions are needed to improve elderly people health with Chronic Diseases.

Keywords: Health Related, Quality, Life, elderly, common, chronic, diseases, Saudi Arabia

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Introduction:

Background:

Health quality of life (HQoL) is a major concern in elderly patients with chronic diseases, which influences the physical and psychological health of the elderly patients as well as their treatment [1]. Health quality of life is a term that has been used interchangeably with health and quality of life (QoL) but is considered to be confusing, and the existing tools have failed to measure the health quality of life [2]. the world's aging population, chronic illnesses such as cardiovascular diseases (CVD), hypertension, diabetes, cancer, chronic obstructive pulmonary disease (COPD), asthma, renal disease, and musculoskeletal ailments have been documented often[3].

The idea of health-related quality of life, abbreviated HQoL, is derived from the definition of health offered by the World Health Organization (WHO), which states that an individual is considered to be healthy when they are in a state of complete physical, mental, and social welfare and do not suffer from any diseases. [4] The World Health Organization (WHO) defines the quality of life as an individual's impressions of their place in life within the framework of the culture and value systems, in which they live, as well as the individual's objectives, expectations, standards, and worries [5]

The demographic makeup of Saudi Arabia has been slowly but steadily shifting, with an increasing number of older individuals making up a greater percentage of the population overall. [6]the current study focuses on the quality of life and adopts the World Health Organization's definition of quality of life (QoL): an elderly people perception of their position in life in the context of the culture and value systems in which they live and in relation , expectations, standards [7].

Lower quality of life was found to be associated with having multiple or comorbid conditions, increasing age, being female, not being married or cohabiting, not having a higher education, having a lower income or lower socioeconomic status, living in a rural area, smoking, not currently drinking alcohol, and not adhering to treatment, among other factors, according to reviews and specific studies [8].

Chronic diseases can interrupt individual's normal activities and function, causing frustration and loss of hope in life [9]. In a cross-sectional study conducted in the US, the health quality of life was assessed among 21,133 participants [10], the participants were asked to indicate the presence or absence of 24 chronic diseases and to indicate any limitations in daily living, the health quality of life was assessed in Five domains that included physical function, fatigue, pain, emotional distress, and social function. Out of the study sample, 19% reported none of the chronic diseases, 20% reported one chronic disease, and 61% reported two or more chronic diseases [11].

On the other hand, chronic illnesses such as cardiovascular disease, cancer, and diabetes, as well as chronic respiratory ailments such as asthma and chronic obstructive pulmonary disease, continue to be the main causes of mortality and disability across the globe [12] . Around 41 million people every year pass away as a result of chronic disease, which accounts for 71% of all fatalities worldwide; more than 85% of premature deaths occur in low- and middle-income countries [13]. These diseases are linked to a decline in elderly patients' Quality of Life (QoL), in addition to major repercussions on their families and communities socioeconomic status. In addition, these illnesses are linked to a decline in the elderly patients' quality of life, in addition to major repercussions for the socioeconomic system [14] . Aging is related to progressive decline in physical, cognitive, and psychosocial functioning. Because of fast increase in up quality of life and medical aid, the life span redoubled well and ageing was about jointly of the highest public ill health we tend to faced. [15] , growing healthcare burden on social and economic burden on both patients and their caregivers was developed [16]

Literature review:

In 2018, Saudi Arabia's elderly population made up just 3% of the total, but that percentage is expected to almost double by 2050, reaching over 20%. [17]. One recent research found that the prevalence of hypertension, diabetes, heart disease, asthma, ulcers, and cancer in Saudi Arabia were correspondingly 71.3%, 27.3%, 16.4%, 9.7%, 8.9%, and 2.0%. [18]

Saudi Arabia has been experiencing a slow however steady amendment in its human ecology with a bigger proportion of old individuals (i.e. 65+ years) within the distribution, because of a number of factors like decreasing fertility and infant-mortality rates additionally because the availability of free, modern healthcare for its citizens. [19]. Old individuals were solely three of the Saudi population in 2010; in distinction, they're going to be nearly twentieth by 2050.[20]. According to the Saudi Arabia, aged people increased to 7% in near future [21] According to the findings of another research, the vast majority of patients suffering from chronic conditions had a low quality of life as

it related to their overall health [22]. Yang et al, 2019. Reported that education has a positive and direct effect on prior knowledge and health literacy [23] . One research study showed that men had limited health literacy. However, the authors explained that as result of the men who participated in their study had low education.[24]

Another study found that the participants with chronic diseases reported poorer QoL across all domains compared to the participants who reported none of the chronic diseases. In addition, the presence of two or more chronic diseases was associated with worse QoL compared with the presence of one chronic disease [25]. This study included a large sample size. In addition, the QoL was assessed among the participants who reported the absence and presence of 24 chronic diseases.

In Saudi Arabia the prevalence of chronic diseases was increasing, i.e., 31-34.5% elderly patients (age ≥ 55) suffered from one or two chronic diseases, respectively, hypertension being the most common chronic condition[26], 25% were either hypertensive or diabetic and some studies reported that 49.9% of elderly people are suffering from mild, moderate or severe depression [27].

A meta-analysis that investigated quality of life of Iranian patients showed that patients with Chronic Diseases have a moderate quality of life [28] In Bahraini study, it was reported an average knowledge of teachers[29] In a study from Turkey about knowledge and attitude of teachers toward Chronic Diseases complications, it was found that the teachers had adequate knowledge of Chronic Diseases complications [30] Mehdizadeh et al , 2019 report that the results showed the patients who were older than 40 years had lower scores in all HRQoL scales, compared with those who were forty years old or less. These findings are consistent with other studies which found that age is negatively correlated with HRQoL [31]. The findings could be interpreted accordingly, such that diabetes complications are prevalent among older diabetics, and they are determinants of poor HRQoL [32] Another study was Tabuk University showed that 55% of the students were unaware of diabetes risk factors. This study included 200 subjects; among them, 103 were males and 97 were females. Their ages ranged from 18 to 24 years, and 16.5% of them were diabetic patients [33]

Rationale

The research explores health quality of Life among elderly people in Saudi Arabia. Factors like health services, lifestyle, and chronic diseases affecting seniors are examined. However, there is a gap in culturally relevant research, particularly in Arabic-speaking countries. This study aims to understand elderly people regarding healthy lifestyles for effective functional preservation in aging Quality of life is an important measure to understand the effect of chronic diseases on elderly people daily living. Yet, the research on Quality of life among elderly patients with chronic diseases in Saudi Arabia is scarce, elderly patients with chronic diseases have diminished quality of life; they need immediate intervention and various effective strategies to cope with their disease. The main purpose of this integrative review is to highlight the effect of the status of Quality of life on elderly people with chronic diseases in light of previous studies , this study investigated the association between multiple chronic diseases on elderly people and Health-Related Quality of Life (HRQoL), assessing the combination of chronic diseases highly correlated with this outcome

Aim of study:

To assessment the effect of Health Quality of Life for elderly people with Common Chronic Diseases in Patients attending Primary Health Care Centers at Saudi Arabia 2022..

Objectives:

To assessment the effect of Health Quality of Life for elderly people with Common Chronic Diseases in Patients attending Primary Health Care Centers at Saudi Arabia 2022.

Materials and Methods:

Research Design

This cross-sectional study was conducted on 300 elderly subjects who had one of chronic diseases such as DM, HTN, CVD, Hypercholesterolemia and depression. Their age were ≥ 60 years and randomly selected from October 2022 to November 2022 from patients attending Primary Health Care Centers in Saudi Arabia 2022

Setting:

The current study conducted in geriatric patients attending Primary Health Care Centers in Saudi Arabia 2022

Data collection

Sampling technique: We adopted systematic random sampling technique using a lottery method, which based on selecting one patient from the first five elderly patients entering the PHC every day, the rest of the respondents were selected using systematic sampling technique with a sampling interval of three. The receptionist were trained/and informed to send every third elderly

patient to the researcher for interview and assessment before going to the desired clinic.

Sample size

Sample size 300 elderly subjects. Randomly selected from October 2022 to November 2022 from outpatient sick geriatric patients attending Primary Health Care Centers in Saudi Arabia 2022 **.** Sample size was calculated form the equation, (300) elderly patients were required to participate in this study. Patients who had one of the above mentioned diseases were included in study. Exclusion criteria including individuals visiting emergency care for secondary objectives, cardiac patients excluded from Framingham assessment tool and depressive patients excluded from PHQ-2, as these two are just the screening tool, and other cognitive disorders that had no ability to answer the questions and took part in the interview.

Quality of life in elderly population, health-related functioning in all domains of health, was determined by Arabic translation of Persian self-reported version of WHO of Life-Brief (WHOQOL) questionnaire, which was consisted of 26 questions. The first section was two questions about the Overall Quality of Life (OQOL) and Overall Health Status (OHS). The next 24 questions constituted four domains of health including physical (7 items), psychological (6 items), social (3 items) and environmental (8 items). Scoring and calculation of each of the four domains in the questionnaire was performed as mentioned previously (WHOQOL User Manual, 1998; Khaje-Bishak et al., 2014). The values of QoL scores were categorized as ≤ 45= poor or bad QoL; score < 45–65= moderate QoL and > 65= relatively high QoL .

All patients, except CVD patients, were subjected to Framingham assessment screening questionnaire to estimate person's 10-years risk for developing chronic cardiac disease (CHD). It mainly based on calculating patient's age, total cholesterol concentration, high-density lipoprotein cholesterol concentration, SBP, DM and smoking. Three levels of risk were defined: <10% (low rik), 10% to 20% (intermediate risk) and >20% (high risk) and were considered within a broader framework of risk assessment of CHD presence as well as its involved factors

Patients Health Questionaire-2 (PHQ-2) was also used for screening of depression in all patients except those who already had depression. PHQ-2 scores ranged from 0 to 6, patients with scores ≥ 3 were considered susceptible for depressive disorders and must be fatherly evaluated with the higher PHQ-9 version .

Pilot study/pretesting

An exploratory sample was drawn and the stability of each was calculated reliability target value were 0.8 pilot study conducted on 10% of sample size; and modification made according to the pilot results**.**

Ethical considerations:

- Research committee approval.
- Written permission from Ethical Review Committee
- Individual verbal consent from all participants before data collection.
- Acknowledgments of all supervisors, advisors, helpers, facilitators and participants. Relevance & expectations
- All collected data has be kept confidential.

Statistical analysis:

Results were expressed as mean ± SD or number (%). Test of normality, Kolmogorov-Smirnov, was used to measure the distribution of data. Accordingly, data are normally distributed, Pearson correlation by SPSS V24**.**

Budget: Self-funded

Result

Table (1) Distribution of Participants demographical and clinical characteristics (n=200)

	N	%
Age		
60-70	48	24
70-80	102	51
>80	50	25
Gender		
Male	78	39
Female	122	61
Marital Status		
Married	44	22
Not married	156	78
Work		
Working	64	32
Not working	136	68
Education		
Low educated	64	32
Highly educated	136	68
Monthly income		
5000 SR or less	102	51
More than 5000 SR	98	49
Family caregiver		
Yes	164	82
No	36	18
Habits		
Smoker	20	10
Ex-smoker	64	32

Regular exerciser	60	30
Non-active	56	28
Chronic diseases		
No evidence of chronic diseases	50	25
One chronic disease	70	35
Two or more	80	40

Table (1) showed that the majority of participants (51.0%) were within the age group 70-80 years followed by >80 were (25.0%) while 60-70 years were (24.0%), regarding the gender the majority of participants females were (61.0%) while Male were (39.0%), regarding the marital status the majority of participants were not married (78.0 %), while the married were (22.0%), regarding work more than half of the participants (68.0%) were not working while work were (32.0%), regarding the education the majority of our participants highly education were (68.0%) while low educated were (32.0%) , regarding the monthly income the majority of participant 5000SRwere (51.0%) while more than 5000 SR were (49.0%) , regarding the family caregiver the most of participant answer Yes were (82.0%) while No were (18.0%) , regarding the habits the majority of participant were Ex-smoker were (32.0%) while regular exerciser were (30.0%) but the Non- active were (28.0%) while smoker were (10.0%) , regarding the chronic diseases the most of participant two or more were (40.0%) while one chronic disease were (35.0%) but no evidence of chronic diseases were (25.0%) .

Table (2): Distribution of Framingham risk and WHOQOL-BREF four domains classified according to incidence of QOL

Variables			Chi-square	
	N	%	X^2	P-value
Framingham risk				
Low risk	18	9	64.1	<0.001*
Intermediate risk	110	55		
High risk	72	36		
PHQ-2				
Negative	60	30	31.2	<0.001*
Positive	140	70		
QOL				
Poor	58	29	47.3	<0.001*
Average	110	55		
Good	32	16		

In table 2 regarding distribution of Framingham risk and WHOQOL-BREF four domains classified according to incidence of QOL show, regarding the Framingham risk the majority of the participants intermediate risk with constitutes of (55.0%) followed by high risk with constitutes of (36.0%) but the low risk were (9.0%) while a significant were P-value=0.001and X^2=64.1, regarding the PHQ-2 in our study the majority of the participants Positive were(70.0%) while the negative were (30.0%) while a significant were P-value=0.001and X^2=31.2, regarding the QOL the majority of the participants average were(55.0%) while poor were (29.0%) but the good were (16.0%) while a significant were P-value=0.001and X^2=47.3 .

Figure (1): Distribution of Framingham risk and WHOQOL-BREF four domains classified according to incidence of QOL

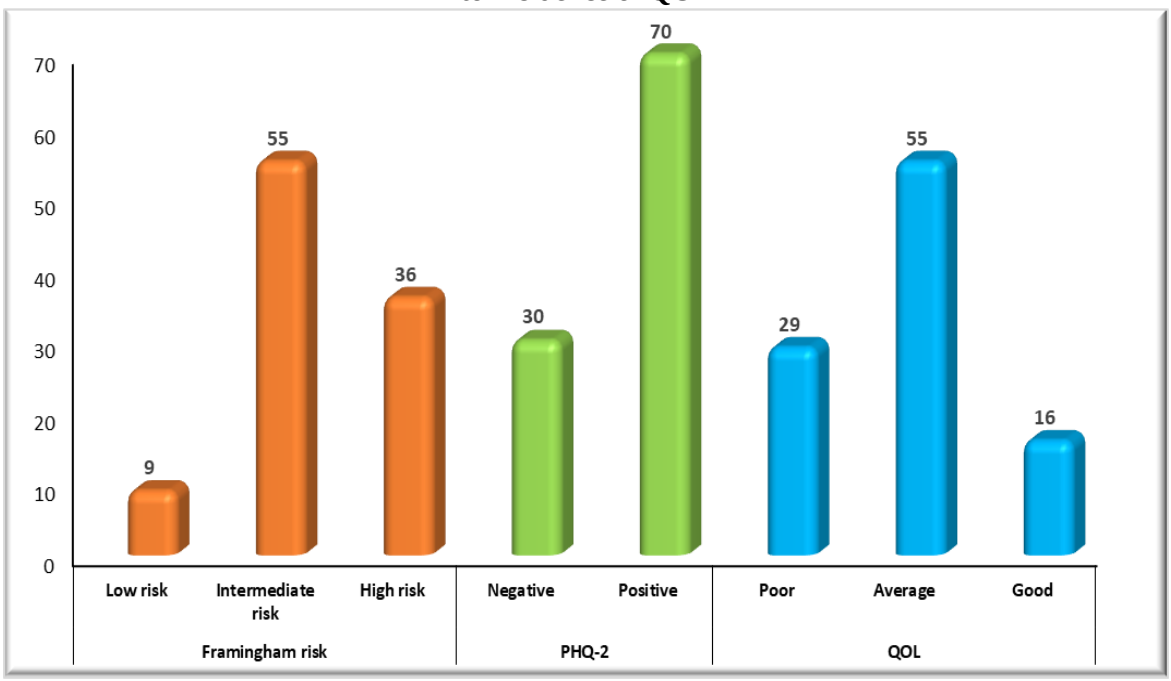


Table (3): Distribution the correlation between the Framingham risk and PHQ-2

		PHQ-2				Total	
		Negative		Positive			
		N	%	N	%	N	%
Framingham risk	Low risk	12	20.0	6	4.3	18	6.0
	Intermediate risk	44	73.3	66	47.1	110	36.7
	High risk	4	6.7	68	48.6	72	24.0
Total		60	100.0	140	100.0	200	66.7
Chi-square	X^2	37.249					
	P-value	<0.001*					

In table 3 regarding distribution the correlation between the Framingham risk and PHQ-2 show, regarding the Framingham risk the most of participant classified as intermediate risk with Negative were (73.3%) followed by low risk in negative were (20.0%) but the high risk were (6.7%) while total were (100.0%)in negative regarding the Positive the most of participant were high risk were (48.6%) while total were (6.0%) while intermediate were (47.1%) while total 36.7%) but the low risk (4.3%) while total were (24.0%) while a significant were P-value=0.001and X^2=37.249 .

Figure(2): Distribution the correlation between the Framingham risk and PHQ-2

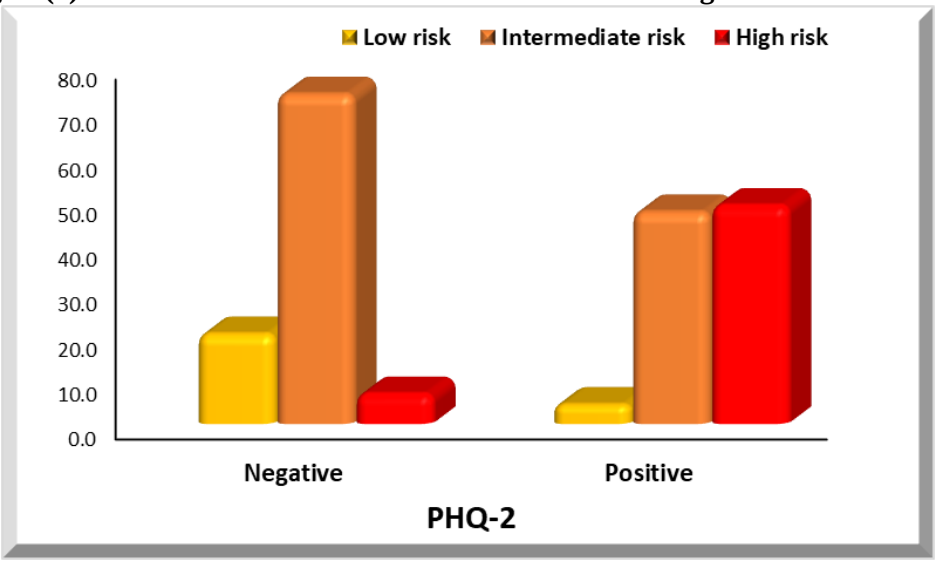


Table (4): Distribution the correlation between the QOL and PHQ-2

		PHQ-2				Total	
		Negative		Positive			
		N	%	N	%	N	%
QOL	Poor	5	8.3	53	37.9	58	29.0
	Average	28	46.7	82	58.6	110	55.0
	Good	27	45.0	5	3.6	32	16.0
Total		60	100.0	140	100.0	200	100.0
Chi-square	X^2	58.76					
	P-value	<0.001*					

In our study in table 4 show, the majority of the participants those who in the QOL classified as average in the negative were (46.7%) followed by good were (45.0%) but the poor were (8.3%) , regarding the positive the most of participant in average were (58.0%)while poor were (37.9%) but good were (3.6%) while a significant relation were P-value=0.001and X^2=58.76

Figure (3): Distribution the correlation between the QOL and PHQ-2

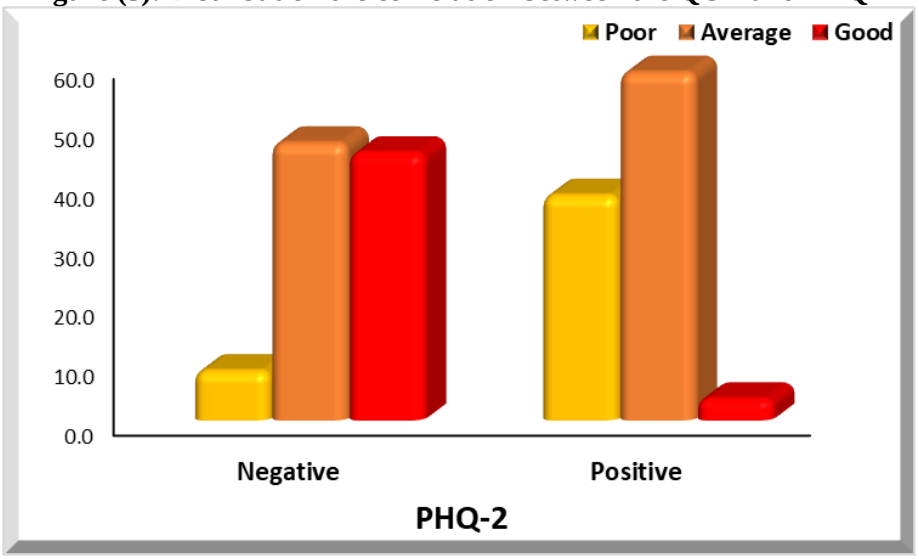
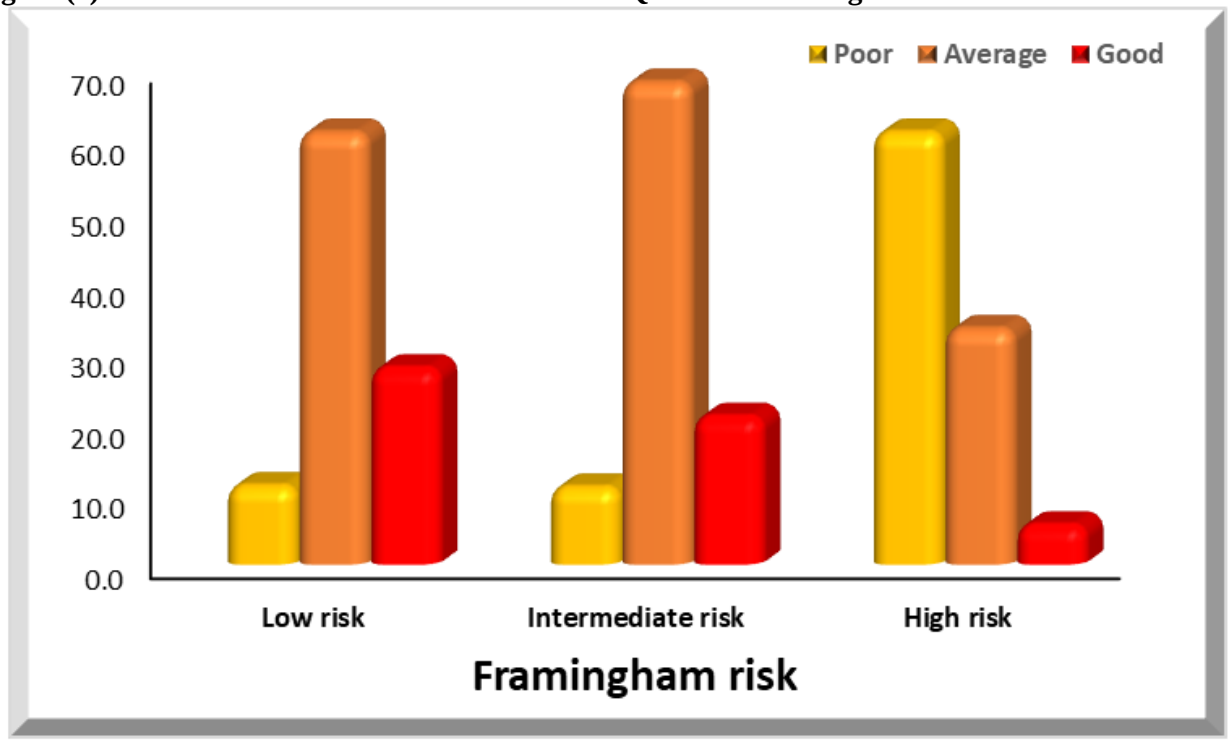


Table (5): Distribution the correlation between the QOL and Framingham risk

		Framingham risk						Total	
		Low risk		Intermediate risk		High risk			
		N	%	N	%	N	%	N	%
QOL	Poor	2	11.1	12	10.9	44	61.1	58	29.0
	Average	11	61.1	75	68.2	24	33.3	110	55.0
	Good	5	27.8	23	20.9	4	5.6	32	16.0
Total		18	100.0	110	100.0	72	100.0	200	100.0
Chi-square	X^2	57.87							
	P-value	<0.001*							

In our study in table 5 show, the majority of the participants those who in the QOL classified as average in the Low risk were (61.1%) and also average in Intermediate risk were (68.2%) while poor in high risk were (61.1%) while a significant relation were P-value=0.001and X^2=57.87 .

Figure (4): Distribution the correlation between the QOL and Framingham risk



Discussion

In addition to improving Health Quality of Life for elderly people and engagement as people age, maintaining a healthy lifestyle can lower the chance of developing chronic diseases and lower the recovery time, health quality of Life for elderly is typically thought to be a manner of life that lowers the risk of developing diseases and prevents early deaths[18].

According to our research results, that the majority of participants (51.0%) were within the age group 70-80 years, the gender the majority of participants females were (61.0%) , regarding work more than half of the participants (68.0%) were not working, the monthly income the majority of participant 5000SRwere (51.0%), the habits the majority of participant were Ex-smoker were (32.0%), the chronic diseases the most of participant two or more were (40.0%) (See table 1). According to Saudi Arabia Social Media Statistics 2022, the utilization of social networking sites is lower among persons over the age of 70, which may help to explain this considering that the questionnaire was distributed through social media platforms [12].

Due to massive decline in all physical and clinical signs of elderly people they need a special attention and care services to maintain their QoL levels and health status. Studying QoL in elderly is important not only for them but also for their caregivers and provides useful information for health provider in order to effectively and efficiently serve the elderly population. At the same time, chronic diseases often require prolonged periods of treatment and place a significant demand on state-funded health care services . [26] Elderly population need especially care services to maintain high level of quality of life and health status.[27]

in our study show distribution of Framingham risk and WHOQOL-BREF four domains classified according to incidence of QOL , regarding the Framingham risk the majority of the participants intermediate risk with constitutes of (55.0%) while a significant were P-value=0.001and X2=64.1, regarding the PHQ-2 in our study the majority of the participants Positive were(70.0%) while the negative were (30.0%) while a significant were P-value=0.001and X2=31.2, regarding the QOL the majority of the participants average were(55.0%) while poor were (29.0%) but the good were (16.0%) while a significant were P-value=0.001and X2=47.3 .(See table 2,3). Another result mean values show, the majority of the participants those who in the QOL classified as average in the negative were (46.7%) followed by good were (45.0%) but the poor were (8.3%) , regarding the positive the most of participant in average were (58.0%)while poor were (37.9%) but good were (3.6%) while a significant relation were P-value=0.001and X2=58.76 (See table 4.5). Many studies reported that there was negative association between increased depression severity and poorer QoL in elderly patients and this association was found to be stable over time [29]. In another study, QoL in elderly people suffered from one of these chronic diseases, DM, HTN, CVD, Hypercholesterolemia and depression was assessed. [30]

These outcomes correspond with findings from various national and international studies. In Iran, In view of chronic diseases and physical conditions more often observed in older people, they may perceive their health to be worse than younger people. A study published indicated that health perception decreased with a decreased level of income [34]. The income level is not used as frequently as an indicator of education or employment status; however, it can provide information on access to goods and services such as the quality of training and health care [12]. Elderly people are also targeted by the national health program for ensuring a healthy environment and opportunities to live healthy lives. This analysis supports the theory that there is a lack of awareness towards healthy lifestyles for older people. This study has underscored the different associations of socio demographic background, attitudes, practices, and knowledge with well-being in old age. In Saudi Arabia, there are few studies on aging [22]. Therefore, it is necessary to undertake further research in particular studies focusing on the perspective of healthy aging from a Saudi Arabian elderly population. [35]

Conclusion

Study findings underscore the importance of effect of Health Quality of Life for elderly people with common chronic diseases. The risk of having chronic diseases rises as the proportion of elderly people increases. Chronic diseases cause medical, social and psychological problems that limit the activities of elderly people in the community. Chronic conditions are not only highly prevalent in the population, but they cluster in elderly people. The lack of baseline information on the prevalence of chronic disease in this elderly .The proportion of the population aged 60 and over, is also growing each year. By the year 2025, the world will host 1.2 billion people aged 60 and over and rising to 1.9 billion in 2050. In Saudi Arabia, elderly account for 3.5% of the total population. Therefore, it seems that a multidisciplinary approach might be

more effective than focusing on single health conditions to improve HQoL and promote healthy ageing. Further longitudinal studies will be necessary to elucidate the real impact of different clusters of chronic conditions on the different domains of HQoL.

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