Impact of Nutrition, Physical Activity and Quality of Life in Older Adults in the Saudi Arabia 2023

Nouf Ajlan Talaq Alqurashi¹, Ehab Mustafa F Alyamany², Yousef Saleh Alserahi³, Mahdi Mohammed Alfahemy³, Fahad Ibraheem Abed Alobidy³, Amna Mahmoud Ibrahim Altakroni⁴, Mina Ghazi Zaher Almajnooni⁴, Muslehah Hmdan Alndawi⁴, Khalaud Naseeb Alhajry⁵, Hind Omar Abuali⁶, Waed Ibrahim Albotthi⁷, Fayez Hameed Alloqmani⁸, Ammar Abdulhaq Ahmed Alshaikh⁹, Arif Eid Alsubhi⁷, Mazen Muslim Muhammad AlMatrafi¹⁰

¹Family medicine consultant, Academy of family medicine-Makkah Ministry of health
²Physiotherapy Specialist, King Abdulaziz Hospital Makkah, Saudi Arabia.
³Physiotherapy technician, King Faisal hospital Makkah, Saudi Arabia.
⁴Nursing technician, Primary Care Center in Batha Quraysh, Saudi Arabia
⁵Nursing Technician, Primary Care Al Maruaj Center, Saudi Arabia

⁶Nursing Specialist, Executive Directory, Of Primary Health Care Center in Riyadh Second Health, Saudi

Arabia

⁷Nursing specialist, Kakia Sector, Saudi Arabia
⁸Nursing technician, Hindawiya Health Center, Makkah, Saudi Arabia.
⁹Epidemiological Technician, Aladl Primary Health Care Centre in Makkah, Saudi Arabia.
¹⁰Nursing Technician, Al-Adl Health Center, Makkah, Saudi Arabia.

Abstract:

Background

Nutrition and Physical activity is associated with health-related quality of life (HRQL) in clinical populations, but less is known whether this relationship exists in older men and women who are healthy, people aged 85 years and over are the fastest-growing group, and the proportion of these "oldest old" is expected to triple between now and year 2030. Continued good health of the elderly population is a major challenge to public health, malnutrition is a global health problem especially in extremes of age. Elderly people are a fast-growing group that is at greater risk of malnutrition due to high prevalence of comorbidities and limited resources available for them, elderly are more prone to negative effects of malnutrition on quality of life and health outcomes due to their vulnerable nature and this is often preventable. Physical activity has been consistently associated with enhanced quality of life (QOL) in older adults. However, the nature of this relationship is not fully understood that physical activity influences global QOL through self-efficacy, nutrition and health-status.

Aim of the study: To determine the Impact of nutrition, Physical Activity and Quality of Life in Older Adults in the Saudi Arabia 2023

Methods: cross-sectional descriptive study conducted at among Older Adults, age above the 50 years to participate in and contacted to participate in an 6-month follow-up. Individuals completed a battery of questionnaires assessing an activities of daily living, dependence on medicines and medical aids, energy and fatigue, mobility, pain and discomfort, sleep and rest, Work capacity, dependence on medicines and medical aids, our total of 300 eligible patients participated in this study

Results: most of the participants (31.0%) were in the age group 60-65 years, gender the majority of them were female (63.0%), level of education majority of participant are primary

education were (34.0%), the family income (SR) the majority of participant save/invest were (68.0%), physical activity the majority of participant low were (48.0%), regarding the social level the majority of participant high were(56.0%) follow by low were (24.0%) while middle were (20.0%).

Conclusion: Our findings support the role of self-efficacy in the relationship between nutrition, physical activity and QOL as well as an expanded QOL model including both health status indicators and global QOL. These findings further suggest future nutrition; physical activity promotion programs should include strategies to enhance self-efficacy, a modifiable factor for improving QOL in older adults .

Keywords: Impact, nutrition, physical, activity, Quality, Life, Older, Saudi Arabia.

Introduction

Increased longevity is associated with an increase in multiple chronic conditions that sometimes translate into functional disability and need for assistance (1). The extra years can be marked by declining health, reduced mobility, depression, isolation, and loneliness (2). World's elderly population is rapidly growing with estimates that the proportion of elderly population over 60 years will double from 11% to 22% in the first five decades of 21st century. (3) The absolute number of elderly is expected to triple from 605 million to 2 billion over this period(4) .Health and functioning of older adults are influenced by many factors other than biological senescence. Demographic, social, and environmental factors, including physical activity and dietary habits, play a major role. Fortunately, many of these societal factors are amenable to public health information and are willing to make behavioral changes to maintain their health and independence into advanced old age (6). Among the most important self-care behaviors are those that involve physical activity and diet, their contribution to health and quality of life .(7)

Longevity is desirable, but what matters is living with satisfactory Quality of Life (QoL) QoL is a broad multidimensional concept based on subjective measures of life, while HRQoL is a more specific aspect of QoL that is related to health (8) . Elderly are at greater risk for developing illnesses, that impair HRQoL(9) .However, the effectiveness of diet and exercise programs continues to be measured in terms of biomedical endpoints. Many of the existing quality-of-life indexes do not directly address the contribution of either physical activity or diet (10) One of possible potentially modifiable determinants of HRQoL is nutrition, because adequate nutrition can delay the age-related frailty and functional dependency by preserving muscle mass and immunity in elderly(12). Malnutrition is defined as state of deficiency, excess or imbalance of a wide range of nutrients, resulting in significant adverse effects on body structure, function and clinical outcome (13)

There are several factors that predispose elderly to malnutrition. This includes physiological, social and economic factors, often referred to as "nine D's" (dysphagia, dyspepsia, dementia, depression, diarrhea, poor dentition, disease, dysfunction and drugs) (14). Malnutrition has been shown to correlate with higher rates of mortality, longer length and increased cost of hospital stay in elderly (15). Malnourished elderly have two folds increased risk of long-term mortality, three times longer length of hospitalization(16), three times higher risk of infection, higher costs of hospital care, greater likelihood of hospital

readmission after discharge , and greater dependence in activities of daily living (ADLs) (17). Assessment of nutritional status in elderly could be done through dietary assessment (e.g. 24 hours recall, food frequency questionnaires or diet quality indices) (18) , clinical assessment for signs of malnutrition(19) , anthropometric measurements (e.g. Body Mass Index (BMI), mid-arm circumference, tricepital skin fold thickness and Biometric Impedance Analysis (BIA) (20) and biochemical markers of malnutrition (e.g. albumin, transferrin, retinol-binding proteins and thyroxin-binding pre-albumin) (21)

Literature Review

Very few studies have explored the interrelationships among dietary measures, physical activity variables, and quality-of-life indexes in older adults or the nature of the intervening variables. As documented below, such factors as perceived mastery and control, enjoyment of the diet, or satisfaction with exercise programs may be as important to quality of life as is reduced plasma cholesterol or increased grip strength.

Study, the prevalence of physical inactivity was found to be 66.6% for the overall Saudi Arabia population (60.1% for men and 72.9% for women) (22). However, it was found that 16.8% of the population engaged in a moderate level of physically active and 16.6% engaged in a high level of physical inactivity (23). The estimated population-attributable fractions (PAF) in Saudi Arabia were calculated using adjusted relative risks and were reported to be 11.4% for coronary heart disease, 14.1% for type 2 diabetes, 19.9% for breast cancer, 20.4% for colon cancer, and18.4% for all-cause mortality associated with physical inactivity (24)The estimated gains in life expectancy by eliminating physical inactivity are 1.51 years (25)

Study to spot the socio-demographic and style determinants for physical activity among urban and residential area older adults . The Persian type of International Physical Activity form utilized for evaluating physical activity level. The results of the study disclosed that 28.47% of the respondents were inactive, 27.96% were minimally active, and 43.55% had health-enhancing physical activity. Residents of residential area areas and normal-weight older adults (P < 0.001) were considerably a lot of doubtless to participate in an exceedingly high intense physical activity. Compared with girls, men had considerably higher odds of being physically active. As compared with residents of sub urban areas, residents of urban areas were considerably had lower odds of being physically active.(26)

According to the WHO's 2016 diabetes country profile, 58.5% of the adult Saudi population were found to be physically inactive (52.1% of men and 67.7% of women) (27).

Ragab et al (2021) reported that study showed that more than half of studied elderly had severe symptoms of constipation at pretest there is no symptoms in posttest.(28) This is in line with the findings of Esra, et al (2023), who discovered that training on lifestyle adjustment led to a reduction in the intensity of constipation symptoms.(29) Highly statistically significant improvement in the intensity of constipation symptoms after a post-educational intervention on lifestyle adjustment, as measured by the Patient Assessment of Constipation Symptoms (PAC-SYM) (28)

Also the findings are consistent with those of who discovered a positive effect of educational programmed on the elderly's awareness of pre prevention and control of constipation. In line

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with who discovered that the intervention was helpful in enhancing their knowledge and shifting their attitudes to a more positive state, resulting in changes in their eating habits.(26) Mohamed et al (2020) reported that American Heart Association (AHA) recommends "at least one hundred fifty minutes per week of moderate intensity aerobic activity or seventy five minutes of vigorous activity for optimum health. Clinical observe tips establish a considerable therapeutic role for physical activity in coronary cardiovascular disease, peripheral vascular wellness, hypertension, obesity, elevated cholesterol, osteoporosis, pulmonary disease, claudication, chronic obstructive, and osteoarthritis (30).

Al Zahibet al and colleagues (2020) applied a cross-sectional national survey to determine the degree of physical activity and its socio-demographic correlates within the Saudi population. The Global Physical Activity form (GPAQ) version of 2.0 was utilized for knowledge assortment. The prevalence of physical inactivity was 66.6%. It absolutely was higher in females than males (72.9% versus 60.1%). The prevalence of time off physical inactivity was 87.9%. Also, it absolutely was higher in females than males (90.2% versus 85.6%). The central and northern regions reportable the very best prevalence of no physical activity at work, leisure and transportation. (28)

Rationale

Regular nutrition, Physical Activity impacts all the HRQoL domains, improving physical and mental health. Physical inactivity is growing in Saudi Arabia, affecting mainly females and older individuals. Considering the hypothesis that higher physical activity and nutrition would be associated with better HRQoL, a focus on constructing more local sports facilities and ensuring concession packages, especially for the older individuals at the gyms, would have benefits .Sedentary life style and consequent obesity prevail in both developed and developing nations; gender- and age-independently. Physical inactivity in a population in a life style transition–like Saudi Arabia–causes metabolic syndrome with its immediate and long-term complications . Healthcare workers are in a better position for role modeling and counseling of appropriate health behaviors. Personal physical activity and body built among physicians influences to some degree their exercise counseling. Despite this public health importance of physical activity, there are few studies investigating its profile among general population .

Aim of the study:

To determine the Impact of nutrition, Physical Activity and Quality of Life in Older Adults in the Saudi Arabia 2023.

Objective:

Determine the Impact of nutrition, Physical Activity and Quality of Life in Older Adults in the Saudi Arabia 2023

Methodology:

Study design:

This study is descriptive cross-sectional study was conducted among Older Adults, age above the 50 years to participate in and contacted to participate in an 6-month follow-up. **Study Area**

The current study has been conducted at Saudi Arabia the study randomly sampled. They has been collected throe the Saudi healthcare system and more specifically in according to the inclusion, exclusion criteria shown below. The study population consisted of the patients who came for services to the primary healthcare center, Saudi Arabia from June 2023 to November 2023, on 300 patients (111 males, 189 females). The ages ranged from $<50-\ge70$ years, the sample size is (300) patients selected randomly, necessary permission was obtained for the data collection. This was a Cross-sectional descriptive study, a predesigned questionnaire was used that consisted of close-ended questions and specific questions on Socio demographic background (Age, gender, nationality, were married, marital status, occupation, education and income) characteristics. The questionnaire is divided impact of nutrition in Quality of Life, health-related quality of life measures in subjects who have lower and higher levels of physical activity, role of the physical activity.

Study Population

The study has been conducted regarding to determine the Impact of nutrition, Physical Activity and Quality of Life in Older Adults in the Saudi Arabia 2023, during the June 2023 to November 2023 the period of study in 2023, the sample size is (300) patients selected randomly.

Selection criteria:

Inclusion criteria

- Men and women who were 50 years of age and older were included in this study.
- Resident in Saudi Arabia.
- All nationalities
- Both males and females.
- Patients willing to give written consent to participate

Exclusion criteria :

• Participants with a history of overt cardiovascular disease (i.e., myocardial infarction, stroke, congestive heart failure, lower extremity revascularization, and peripheral arterial disease confirmed by an ankle/brachial index < 0.90) or chronic obstructive pulmonary disease were excluded because of the possible confounding influences that cardiovascular diseases may have on both physical activity and HRQL.

- Pediatric patients.
- Patients with severe cognitive impairment such as dementia or delirium.
- Patients unwilling to give written consent to participate.

Sample size

Descriptive and bivariate Chi-square analyses (X2, P-value) were performed in SPSS, version 24.0 . In order to examine the physical function physical activity, self-efficacy, health status indicators, and quality of life . The sample size has been calculated by applying Raosoft sample size calculator based on (The margin of error: 5%, Confidence level: 95%,

and the response distribution was considered to be 20%) accordingly the Sample size is (300) in Saudi Arabia in 2023 (male and female) after official communication, and adding 10 more to decrease margin of error. After adding 5% oversampling, the minimum calculated sample has been 300. Computer generated simple random sampling technique was used to select the study participants.

Sampling technique:

Systematic random sampling technique is adopted. After that, by using random number generator, then simple random sampling technique has been applied to select the participant. Also, convenience sampling technique will be utilized to select the participants in the study. By using systematic sampling random as dividing the required sample size; (300).

Data collection tool

The data was collected through a questionnaire that was developed by the researchers after reviewing the related literature. It was translated into simple Arabic language to suit the understanding level of the entire study subjects. Self-administrated questionnaire was used. The questionnaire contains four sections. First section: containing items related to demographic data as age, sex, marital status, and occupation, The second section questions to assess nutrition in Quality of Life , The third section consisted of questions of measures physical function, part fourth role of the physical activity.

Data collection technique:

Researcher has been visiting the PHC Saudi Arabia in 2023. Each sector consists of a group of Primary Health Care Centers, after getting the approval from the ministries of health , the researcher has been obtained permission from participants. After the arrival of the participants has been explained the purpose of the study to all participants attending

Data entry and analysis:

The data were coded and introduced to the Statistical Package of Social Sciences (SPSS, version 24). The data were analyzed to present the findings in descriptive and inferential statistics. The descriptive statistics include frequencies and percentages for categorical variables and standard deviations were used to summarize numerical data. The significant associations between demographic and background variables were detected at < 0.05 significance level.

Pilot study:

A pilot study has been conducted in the same sector due to the similarity to the target group using the same questionnaire to test the methodology of the study. As a feedback, the questionnaire has been clear and no defect has been detected in the methodology

Ethical considerations:

Permission from the directorate of health, verbal consents from all participants in the questionnaire were obtained. All information was kept confidential, and results will be submitted to the department as feedback. The researcher described the aim and objectives of the study for the residents. No names were required to assure confidentiality of data, and all information was kept confidential only for this study's purposes.

Budget: Self-funded

Result

Table 1— Distribution of Socio-Demographic Characteristics participant of elderly in
the study (n=300)

	Ν	%
Age		
<50	54	18
60-65	93	31
65-70	66	22
≥70	87	29
Gender		
Male	111	37
Female	189	63
Marital status		
Married	126	42
Divorced	54	18
Widowed	120	40
Level of Education:		
Primary education	102	34
Preparatory education	84	28
Secondary (general & technical)	60	20
University graduate	54	18
Past Occupation:		
Non-working/ housewife	102	34
Employee	165	55
Technical	33	11
Family income:		
Just meet routine expenses	96	32
Able to save/invest	204	68
Physical activity		
Low	144	48
Moderate	66	22
High	90	30
Social Level		
Low	72	24
Middle	60	20
High	168	56

Table 1 shows that most of the participants (31.0%) were in the age group 60-65 years follow by the (29.0%) were in the \geq 70 years while 65-70 years were (22.0%), regarding the gender the majority of them were female (63.0%) while male were (37.0%), regarding marital status the majority of participant are marital were (42.0%) while widowed were(40.0%) while divorced were (40.0%), regarding level of education the majority of

participant are primary education were (34.0%) followed by preparatory education were (28.0%) while secondary (general & technical) were (20.0%) but university graduate were (18.%), regarding past occupation the majority of participant are employee were (55.0%) while Non-working/ housewife were(34.0%) but technical were (11.0%), regarding the family income (SR) the majority of participant save/invest were (68.0%) follow by just meet routine expenses were (32.0%), regarding physical activity the majority of participant low were (48.0%) while high were(30.0%) while moderate were (22.0%), regarding the social level the majority of participant high were(56.0%) follow by low were (24.0%) while middle were (20.0%)

Social Level	Ν	%			
Living with:					
- Alone	93	31			
- With their family	207	69			
Location					
Gym/Walking tracks	156	52			
Malls	66	22			
Hospital visitors	78	26			
Body mass index (BMI)					
Normal	126	42			
Overweight	111	37			
Obese	63	21			

Table 2 Distribution of Socio-Demographic Characteristics participant

Table 2 shows regarding the living with that most of the participants with their family were (69.0%) follow by alone were (31.0%), regarding the location the majority of them were Gym/Walking tracks were (52.0%) while hospital visitors were (26.0%) while malls were (22.0%), regarding body mass index (BMI) the majority of participant normal were (42.0%) followed by overweight were (37.0%) while obese were (21.0%).

Table 3: Distribution	of the impact	of nutrition in	Quality of Life	in the participant
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	Ν	%
1. Food help to improve the Quali	ty of Life	in Older
Adults		
Green fruit or vegetable	102	34
Fenugreek, herbs and soup	72	24
Brown bread	60	20
Oats, Nuts	93	31
Honey	126	42
Cocked vegetables	96	32
Water	120	40
I don't know	45	15

2. Food it helps to not improved the	Quality of	of Life in
Older Adults		
Caffeine drinks	153	51
Milk products	45	15
Fried food and crackers	66	22
Rice or pasta	39	13
White Bread	54	18
I don't know	63	21

Table 3 shows distribution of the impact of nutrition in Quality of Life in the participant regarding food help to improve the Quality of Life in Older Adults that most of the participants Honey were (42.0%) follow by water were (40.0%) while Green fruit or vegetable were (34.0%) but Oats, Nuts were (31.0%) but the Cocked vegetables were (32.0%) while I don't know were (15.0%) regarding food it helps to not improved the Quality of Life in Older Adults the majority Caffeine drinks were (51.0%) while Fried food and crackers were (22.0%) while I don't know were (15.0%) followed by White Bread were (18.0%) while Milk products were (15.0%)

Table 4: Distribution of the health-related quality of life measures in subjects who have
lower and higher levels of physical activity

Physical Function	Higher Physical Activity group		Lower Physical Activity group		Chi-square	
	No	%	No	%	\mathbf{X}^2	P-value
Dependence on medicines and medical aids	219	73	81	27	63.480	<0.001*
Energy and fatigue	198	66	102	34	30.720	< 0.001*
Mobility	147	49	153	51	0.120	0.729
Pain and discomfort	207	69	93	31	43.320	< 0.001*
Sleep and rest	186	62	114	38	17.280	< 0.001*
Work capacity	219	73	81	27	63.480	< 0.001*

Table 4 Regarding distribution of the health-related quality of life measures in subjects who have lower and higher levels of physical activity in the study show regarding dependence on medicines and medical aids a significant relation between the physical function and dependence on medicines and medical aids while P-value <0.001 and X² 63.480 the majority of participant in higher Physical Activity group were (73.0%) followed by Lower Physical Activity group were (27.0%), regarding the Energy and fatigue a significant relation between the physical function and Energy and fatigue while P-value <0.001 and X² 30.720 the most of participant in higher Physical Activity group were (66.0%) followed by Lower Physical Activity group were (34.0%), regarding mobility no significant relation between the physical function and mobility while P-value <0.729 and X² 0.120 the majority

of participant in lower Physical Activity group were (51.0%) followed by high Physical Activity group were (49.0%), regarding the pain and discomfort a significant relation between the physical function and Pain and discomfort while P-value <0.001 and X^2 43.320 the most of participant in higher Physical Activity group were (69.0%) followed by lower Physical Activity group were (31.0%), regarding Sleep and rest a significant relation between the physical function and Sleep and rest while P-value <0.001 and X^2 17.280 the majority of participant in higher Physical Activity group were (62.0%) followed by Lower Physical Activity group were (38.0%), regarding the work capacity a significant relation between the physical function and work capacity while P-value <0.001 and X^2 63.480 the most of participant in higher Physical Activity group were (73.0%) followed by Lower Physical Activity group were (27.0%),

Variables	Yes	No I construction No I construction No I construction I construction No I constructi		s No I don' know		don't	Chi-square	
	No	%	No	%	No	%	\mathbf{X}^2	P-value
Role emotional	96	32	171	57	33	11	95.460	< 0.001*
Energy fatigue	228	76	63	21	9	3	260.340	< 0.001*
Emotional well being	111	37	132	44	57	19	29.940	< 0.001*
Social functioning	171	57	93	31	36	12	91.860	< 0.001*
Bodily pain	195	65	30	10	75	25	145.500	< 0.001*
General Health	225	75	36	12	39	13	234.420	< 0.001*
Physicalcomponentsummary (PCS))	111	37	162	54	27	9	92.940	<0.001*
Mentalcomponentsummary (MCS)	36	12	225	75	39	13	234.420	<0.001*

Table 5: Distribution the role of the physical activity in the health-related quality .

Table 5 Regarding Distribution the role of the physical activity in the health-related quality the study show regarding role emotional a significant relation while P-value <0.001 and X^2 95.460 the majority of participant in No were (57.0%) followed by Yes were (32.0%) while I don't know were (11.0%), regarding the Energy fatigue a significant relation while Pvalue <0.001 and X^2 260.340 the most of participant in Yes were (76.0%) followed by No were (21.0%) while I don't know were (3.0%), regarding the Emotional wellbeing a significant relation while P-value < 0.001 and X² 29.940 the most of participant in No were (44.0%) followed by Yes were (37.0%) while I don't know were (19.0%), regarding the Social functioning a significant relation while P-value <0.001 and X² 91.860 the most of participant in Yes were (57.0%) followed by No were (31.0%) while I don't know were (12.0%), regarding the Bodily pain a significant relation while P-value <0.001 and X^2 145.500 the most of participant in Yes were (65.0%) followed by I don't know were (25.0%), while No were (10.0%), regarding the General Health a significant relation while P-value <0.001 and X² 234.420 the most of participant in Yes were (75.0%) followed by I don't know were (13.0%), while No were (12.0%), regarding the Physical component summary (PCS) a significant relation while P-value < 0.001 and X² 92.940 the most of participant in No were

(54.0%) followed by Yes were (37.0%) while I don't know were (9.0%), regarding the Mental component summary (MCS) a significant relation while P-value <0.001 and X^2 234.420 the most of participant in No were (75.0%) followed by I don't know were (13.0%), while Yes were (12.0%).

Discussion

If health-related quality of life and not longevity is the key goal for health promotion, then it is captured only partly by the existing mortality and morbidity indexes (32), similar our aim of study to determine the Impact of nutrition, Physical Activity and Quality of Life in Older Adults in the Saudi Arabia 2023. Researchers now urge that government agencies and health care providers begin collecting quality-of-life data on the populations they serve (32). In the present study shows that most of the participants (31.0%) were in the age group 60-65 years, the gender the majority of them were female (63.0%) while male were (37.0%), marital status the majority of participant are marital were (42.0%) regarding level of education the majority of participant are employee were (55.0%) while Non-working/ housewife were (34.0%) regarding the family income (SR) the majority of participant save/invest were (68.0%) regarding physical activity the majority of participant low were (48.0%) while high were(30.0%) while moderate were (22.0%) (See table 1,2)

Adding life to years, not years to life, is the current agenda for productive and successful aging (33). Policies and programs on aging are increasingly focused on identifying ways to improve quality of life and health status, nutrition, Physical Activity and Quality of Life rather than just extending life span (32). In the Healthy People report, the chief goal of health promotion was to increase the span of healthy life (33). The focus was on mortality and morbidity data and symptom checklists as the principal measures of ill health (22)

In contrast, the new emphasis in the Healthy People report is on quality of life, nutrition, Physical Activity overall well-being (27). Helping people to increase life expectancy and improve their quality of life is the primary goal of the Healthy People report. The authors of this special issue of the Journals of Gerontology: Biological Sciences and Medical Sciences are united in the belief that optimal nutrition and physical activity make a significant contribution to the overall quality of life at any age and especially for older adults.(20)The key research challenge lies in deciding which aspects of improved fitness, nutrition, and diet contribute the most to quality-of life measures. We have attempted to provide a comprehensive review of research on exercise, nutrition, diet, and health in elderly adults . (19). Studies on diet, nutrition, and fitness have largely addressed biomedical outcomes, pointing to substantial benefits in physical functioning, remission of disease symptoms, and improved health. This special issue goes a step further in assessing the effect of improved nutrition and physical activity on the global quality of life and its four principal domains. (34) Although links between diet and exercise and chronic disease risks have been well documented, more needs to be known about motivations for behavioural change and perceived benefits as assessed using quality-of-life measures. No single segment of our society can benefit more from regularly performed exercise and improved diet than elderly adults (21)

In our study shows distribution of the impact of nutrition in Quality of Life in the participant regarding food help to improve the Quality of Life in Older Adults that most of the participants Honey were (42.0%) follow by water were (40.0%) while Green fruit or vegetable were (34.0%) but Oats, Nuts were (31.0%) but the Cocked vegetables were (32.0%) while I don't know were (15.0%) regarding food it helps to not improved the Quality of Life in Older Adults the majority Caffeine drinks were (51.0%) while Fried food and crackers were (22.0%) while I don't know were (15.0%) followed by White Bread were (18.0%) (while Milk products were (15.0%) (See table 3)

Physical activity improved HRQL measures regardless of age, activity status, or health of participants (30). However, the relationship between physical activity and quality of life largely depended on what outcome was of greatest concern to the elderly individual. The effect of fitness on HRQL was less dramatic when the person was already functioning above the norm. Furthermore, there was a much closer link between performance dysfunction and HRQL than between fitness and HRQL. (12) In other words, disability and dysfunction were far more salient and far more detrimental to quality- of-life measures than were reductions in the general level of fitness. Similar my study show distribution of the health-related quality of life measures in subjects who have lower and higher levels of physical activity in the study dependence on medicines and medical aids a significant relation between the physical function and dependence on medicines and medical aids while P-value <0.001 and X2 63.480 the majority of participant in higher Physical Activity group were (73.0%) followed by Lower Physical Activity group were (27.0%), regarding the Energy and fatigue a significant relation between the physical function and Energy and fatigue while P-value <0.001 and X2 30.720 the most of participant in higher Physical Activity group were (66.0%) followed by Lower Physical Activity group were (34.0%), regarding mobility no significant relation between the physical function and mobility while P-value <0.729 and X2 0.120 the majority of participant in lower Physical Activity group were (51.0%) followed by high Physical Activity group were (49.0%) (See table 4)

Increasing physical activity is a viable strategy for improving both health and quality of life of older adults (33), role of the physical activity in the health-related quality. Stewart and King (34) proposed two outcome categories functioning and well-being to measure the effect of physical activity on the overall quality of life. Functioning included physical ability and dexterity, cognition, and activities of daily living; well-being included not only symptoms and bodily states but also emotional wellbeing, self-concept, and global perceptions related to health and overall life satisfaction (35). The basic question was whether outcome measures would best be served by symptom- driven HRQL measures or whether quality of life was more of a psychological construct that included conscious cognitive judgment of satisfaction with one's life (36)

In our study reported that distribution the role of the physical activity in the health-related quality the study show regarding role emotional a significant relation while P-value <0.001 and X2 95.460 the majority of participant in No were (57.0%) followed by Yes were (32.0%) while I don't know were (11.0%), regarding the Energy fatigue a significant relation while P-value <0.001 and X2 260.340 the most of participant in Yes were (76.0%) followed by No were (21.0%) while I don't know were (3.0%), regarding the Emotional wellbeing a significant relation while P-value <0.001 and X2 29.940 the most of participant in No were

(44.0%) followed by Yes were (37.0%) while I don't know were (19.0%), regarding the Social functioning a significant relation while P-value <0.001 and X2 91.860 the most of participant in Yes were (57.0%) followed by No were (31.0%) while I don't know were (12.0%) (See table 5)

Conclusion

The key research challenge lies in deciding which aspects of improved fitness, nutrition, and diet contribute the most to quality of life measures, provide a comprehensive review of research on exercise, nutrition, diet, and health in elderly adults. Healthy older adults who regularly participated in good nutrition program and physical activity of at least moderate intensity for more than one hour per week had higher HRQL measures in both physical tha those who were less physically active. Therefore, incorporating more physical activity and nutrition program into the lifestyles of sedentary or slightly active older individuals may improve their HRQL, although links between diet and exercise and chronic disease risks have been well documented, more needs to be known about motivations for behavioral change and perceived benefits as assessed using quality-of-life measures. No single segment of our society can benefit more from regularly performed exercise and improved diet than elderly adults.

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