



RESEARCH ARTICLE

Assessment of Old Age Nutritional Status at Home in Al-Diwaniyah City

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ABSTRACT

Background: The elderly's health is critical in determining a population's health status. Nutritional problems, as well as malnutrition as a result of insufficient food consumption, are among the most common disorders related with aging. Undiagnosed malnutrition can result in infections and death. The quality of life of the elderly, as well as their risk of morbidity and death, is influenced by nutrition.

Objective: Assess the old ages' nutritional status at home in Al-Diwaniyah City.

Methodology: From September 20, 2021, to May 1, 2022, a cross-sectional study design utilizing the assessment approach is used to assess the nutritional status of the old ages at Home in AL-Diwaniyah City. The present study is conducted at Home at AL-Daghara District in Al-Diwaniyah City. Non-probability (convenient) sample approach was used to select a sample of (24) old age at Home. These old age are distributed with respect to their age as early old age of (65-74) year, middle age of (75-84) year and old-old age of (85 and more) year. Under the supervision of the supervisor and the panel of experts, the instrument was modified and implemented in a questionnaire form and used for data collection and measured the variable the nutritional status for old age.

Results: Findings demonstrated that the (66.7%) out of 24 participants from old age at home exhibited good nutritional status as described by higher mean scores 33.45 (± 5.461).

Conclusion: Marital status (Old age who are widower significantly improved nutritional status because they live with their families). Education level (Old age who are high school graduated and above is significantly increased nutritional status). Monthly income (Old age who make more than 600 thousand dinars were significantly improved nutritional status). Occupation (Old age who are retired is significantly increased nutritional status). BMI (Old age who are ≥ 23 is significantly higher nutritional status).

Keywords: Assessment, Old Age, Nutritional Status, Home.



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INTRODUCTION

The elderly is a heterogeneous group with varying nutritional needs. Nutrition and aging are inextricably related. The nutrients required, their absorption, and subsequent metabolism all change as people age. Aging-related physical, mental, social, and environmental changes may affect senior citizens' nutritional health and influence clinical outcomes throughout disease. As a result, diet is linked to and dependent on the majority of health issues. As a result, assessing the nutritional status of older individuals is crucial in order to implement appropriate nutrition interventions aimed at preventing or delaying the detrimental health effects of malnutrition in this population (Arlappa et al., 2016).

The elderly's health is critical in determining a population's health status. Nutritional problems, as well as malnutrition as a result of insufficient food consumption, are among the most common disorders related with aging. Undiagnosed malnutrition can result in infections and death (Jamil et al., 2021). The quality of life of the elderly, as well as their risk of morbidity and death, is influenced by nutrition (Shahabi et al., 2019).

A study was undertaken in Iraq to analyze the nutritional status of (120) elderly people aged 65 and over who reside in Geriatric Homes in Al-Furat Al-Awasat Governorate. The data indicated that the majority of them exhibit signs and symptoms of hair loss and nail whitening. The majority of elderly inhabitants do not take vitamins or minerals on a regular basis, and more than half of their BMI and MUAC values were overweight (53.3 percent and 55.8 percent, respectively) (Mohammed & Khaleel, 2016).

Another research conducted in Iraq to assess the nutritional status of (50) elderly individuals aged (60-86) years who reside in nursing homes throughout the Baghdad governorate using anthropometric measurements (BMI, Mid-upper arm circumference), nutritive patterns, nutrition intake, and clinical appearance. The findings indicated that the majority of them suffer from obesity, hair loss, and nail bleaching, and that the majority of senior citizens are not vitamin and mineral consumers. The study advised that nutritional status of older individuals who reside in nursing homes and those who live in the community be compared (AL-Jebory & Khalifa, 2013).

The rise in the elderly population is a global trend that reflects the lengthening of life expectancy as a result of demographic shifts in many countries. The aging population is rapidly growing over the world. Globally, the elderly population is predicted to grow from over 524 million in 2010 to over 1500 million in 2050, including a large increase in

developing countries. The population of senior people aged 60 and up is anticipated to more than quadruple by 2050, and triple by 2100. The world's population is anticipated to increase from 962 million in 2017 to 2.1 billion in 2050 and 3.1 billion in 2100. Everywhere in the globe People in their sixties and seventies are growing at a quicker rate than people in any other age group (Elghazally & Saied, 2019).

In 2016, Iraq's elderly population (60 years and older) accounted for around 5% of the overall population (AL-Kazarajy & Hammadi, 2020). Malnutrition is a common ailment among the elderly, characterized by low caloric intake, poor appetite, muscular wasting, and weight loss (Maseda et al., 2016).

Undernutrition is another nutritional issue that older individuals face as a result of their nutritional needs being neglected. Depression, dementia, anorexia, poor dental health, drugs, discomfort, weariness, sensory changes, reduced function, dietary restriction (particularly prevalent in women), social isolation, and drunkenness are all risk factors for elderly malnutrition (AL-Nass et al., 2016).

The frequency of malnutrition varies greatly over the world. Malnutrition and the risk of malnutrition in elderly nursing home residents can range from 4.2 percent to 52.1 percent in affluent countries. Results from prior studies conducted in Iraq were documented. In Babylon City, 26.5 percent of senior patients attending outpatient clinics were malnourished, and 43.2 percent were at risk of malnutrition. While 68.4 percent and 3.6 percent of elderly residents in nursing home centers, respectively, were malnourished or at danger of malnutrition in Baghdad (Jamil et al., 2021).

The study of nutritional requirements for older adults is necessary not only to determine the amount of nutrient required to avoid a deficiency state, but also to prevent chronic disease. The studies are also necessary to determine the optimal level of essential nutrients required to maintain an optimal immune response and to reduce disease burden (World Health Organization [WHO], 2002).

Ageing and nutrition have developed into a global issue. Nutritional inadequacy occurs in old age as a result of physiological changes associated with aging, stressful life events, reduced activities of daily living, lack of financial assistance, and neglect. Thus, it becomes vital to evaluate the elderly's nutritional state, as deficiencies can be easily addressed and a higher quality of life acquired (Vaish et al., 2020).

The elderly is particularly vulnerable to nutritional deficiency due to age-related factors such as physiological changes, chronic diseases, medication use, and decreased mobility. Elder nutrition may be difficult to recognize or distinguish from changes associated with the aging process, which if detected, could result in a more rapid decline in health and premature death. Nutritional requirements fluctuate as people age. These changes could be a result of the natural aging process, a medical condition, or a change in lifestyle. Nutritional evaluation as a clinical study to ascertain the nutritional status, risk factors, and foods associated with older persons can be beneficial in assessing the elder's status and determining the prevalence of specific health nutrition risks among older adults (Mohammed & Khaleel, 2016).

Appropriate nutrition, particularly for the elderly, aids in the maintenance of health, the prevention of chronic diseases, the promotion of vitality and everyday activities, energy and mood, and the maintenance of independent living. The current study aims to assess old age nutritional status for those who live at their home residence and at Geriatric Home in Al-Diwaniyah City for the purpose of identifying their level of nutrition-related health issues.

METHOD

Design

From September 20, 2021 to May 1, 2022, a cross-sectional study design utilizing the assessment approach is used to assess the nutritional status of the old ages at Home in AL-Diwaniyah City.

The Settings of the Study

The present study is conducted at Home AL-Daghara District in Al-Diwaniyah City.

Sample of the Study

Non-probability (convenient) sample of (24) old age at Home in AL-Diwaniyah City. These old ages are distributed with respect to their age as early old age of (65-74) year, middle age of (75-84) year and old-old age of (85 and more) year.

Ethical Considerations

Prior to the initial execution of the original study, the Scientific Research Ethical Committee at the College of the Nursing University of Baghdad provided ethical approval and permission for its conduction.

Signed consent is obtained from all old age who have consented to take part in the research. The objectives of the study are presented and explained

to them, and they are informed that the data are used only for research purpose, and they have to feel free to participate in this study with no obligations. All the information gathered from participants are kept trusted and confidential.

Study Instrument

Under the supervision of the supervisor and the panel of experts, the instrument was changed and implemented in a questionnaire form and used for data collection and measured the variable the nutritional status for old age.

Validity of the Study Instrument

A panel of (10) experts determine the content validity of the self-report questionnaire. These experts include four faculty members from the University of Baghdad's College of Nursing, three faculty members from the University of Al-Qadysia's College of Medicine, and three physicians from the Ministry of Health and Environment.

These experts are given a copy of the study instrument and requested to assess and evaluate it for clarity and appropriateness of content. The self-report questionnaire is prepared and constructed to include multiple choice questions, according to the experts' suggestions (MCQ). After considering all the comments and suggestions, some items are removed, and others are added. After making the changes based on the responses of the experts, the questionnaire is considered genuine.

Reliability of the Questionnaire

The reliability of the study instruments means making sure that the answer will be almost the same, if it is repeatedly applied to the same people, at different times. The same people the second time, after confirming the apparent validity of the study tool, the researcher applied it to a random exploratory sample of 5 old age at geriatric home and 5 old age at home. Where the members of this sample were later excluded from the original sample on which the final study was conducted.

Methods of Statistics Data Analysis

In order to statistically analyze the data collected from the study sample to arrive at the results, the researcher used the SPSS version (20) and Microsoft Excel (2010) program to analyze this data and deal with it statistically, to find the relationships between the variables, and obtain the final results of the research based on a set of statistical tests.

Descriptive Data Analysis

Descriptive statistics includes a set of mathematical and statistical methods that are adopted to describe the main features of a data quantitatively by using tables and charts.

Descriptive statistics always aim to present and describe the data which is required to be processed, organized, summarized, and categorized, as well as presenting them in a simple and clear manner that makes it easier for the recipient to recognize and understand its content.

Limitations of the Study

The following limitations apply to the current study: Generalizability of the study findings are limited to the study sample due to its type as convenient sample. There is a lack of national research studies related to the topics underlying the present study.

RESULTS

Table 1: Old Age Socio-Demographic Characteristics (at Home)

Variables	Classification	Freq.	%
Age	65-74 years old	14	58.3
	75-84 years old	7	29.2
	85 and older	3	12.5
	Total	24	100.0
Gender	Male	16	66.7
	Female	8	33.3
	Total	24	100.0
Marital status	Single	1	4.2
	Married	7	29.2
	Separated	6	25.0
	Divorced	5	20.8
	Widower	5	20.8
	Total	24	100.0
Education level	Not read and write	4	16.7
	Read and write	1	4.2
	Elementary	14	58.3
	High school	1	4.2
	College	4	16.7
	Total	24	100.0
Monthly income	<300,000 dinar	9	37.5
	300,000-600,000 dinar	12	50.0
	>600,000 dinar	3	12.5
	Total	24	100.0
Occupation	Self-employment	9	37.5
	Retired	12	50.0
	Unemployment	3	12.5
	Total	24	100.0
BMI	9-21	1	4.2
	21-23	9	37.5
	>23	14	58.3
	Total	24	100.0
Mid-arm Circumference (cm)	<21cm	1	4.2
	21-22cm	3	12.5
	>22cm	20	83.4
	Total	24	100.0
Mid-leg Circumference (cm)	<31cm	1	4.2
	>31cm	23	95.8
	Total	24	100.0

In terms of frequencies and percentage, out of 24 old age people at home participants in study aged 65-74 years old (58.3%), followed by those who are aged 65-74 years (29.2%) and those who are aged 85 and above years old (12.5%).

In regards with gender, more than half of studied sample were male (66.7%) as compared with those who are female (33.3%).

Marital status related findings, a married people were the highest percentage (29.2%), followed by those who are separated (25%), followed by those who are divorced and widower (20.8%).

Respected to the educational level, the elementary school graduated were records the highest percentage (58.3%), followed by those who are unable to read and write and college graduated (16.7%) and those who are read and write and high school (4.2%).

Monthly income associated findings, most of participants were make 300,000 to 600,000 dinar (50%), followed by those who are <300.000 dinar (37.5%) and those who are make more than 600,000 (12.5%).

Occupation associated findings, the retired were highest (50%), followed by those who are self-employment (37.5%) and those who are unemployment (12.5%).

Concerning body mass index, most of old age on more than 23 BMI and more (58.3%) followed by those who are 21-23 BMI (37.5%) and those who are (4.2%).

In terms of mid arm-leg circumference, findings show that the (83.3%) expressed more than 22 cm as a mid-arm circumference and (95.8%) expressed more than 31 cm as a mid-leg circumference.

Table 2: Mean of Score Items of Old Age Nutritional Status at Home

List	Old age Nutrition at Home	Responses	No.	%	M.s ± SD	Ass.
1	Food intake decline	Severe decreased	2	8.3	2.58±0.653	High
		Moderate decreased	6	25.0		
		No decreased	16	66.7		
2	Weight loss	Does not know	3	12.5	2.41±0.717	High
		Moderate loss	8	33.3		
		No weight loss	13	54.2		
3	Effect of psychological stress of acute disease	High	3	12.5	2.41±0.717	High
		Moderate	8	33.3		
		Mild	13	54.2		
4	Neuropsychological status	Severe dementia	0	0.0	2.58±0.503	High
		Mild dementia	10	41.7		
		No psychological problems	14	58.3		
5	The effect of residency	High	1	4.2	2.29±0.550	Moderate
		Moderate	15	62.5		
		Mild	8	33.3		
6	Daily full meals	One	2	8.3	2.66±0.637	High
		Two	4	16.7		
		Three	18	75.0		
7	Milk 1 cup	Never	3	12.5	2.41±0.717	High
		Sometime	8	33.3		
		Always	13	54.2		
8	Cheese 1 slice	Never	6	25.0	2.37±0.875	High
		Sometime	3	12.5		
		Always	15	62.5		
9	Yoghurt 1 cup	Never	1	4.2	2.37±0.575	High
		Sometime	13	54.2		
		Always	10	41.7		
10	Two or more servings of Legumes	Never	4	16.7	2.16±0.701	Moderate
		Sometime	12	50.0		
		Always	8	33.3		
11	Meat, fish or poultry every day	Never	4	16.7	2.20±0.721	Moderate
		Sometime	11	45.8		
		Always	9	37.5		
12	Daily consumption of one or two servings of fruits or vegetables	Never	3	12.5	2.12±0.612	Moderate
		Sometime	15	62.5		
		Always	6	25.0		
13	Daily fluid intake	< 3 cups	1	4.2	2.25±0.531	Moderate
		3-5 cups	16	66.7		
		>5 cups	7	29.2		

14	Mode of feeding	Unable to eat without assistance	1	4.2	2.58±0.583	High
		Self-fed with some difficulty	8	33.3		
		Self-fed without any problem	15	62.5		

"(M.s) Mean of scores, (SD) Standard deviation, Level of Assessment (Lwo≤1.66, Moderate=1.67-2.33, High≥2.34)"

Table 3: Overall Evaluation of Old Age Nutritional Status at Home

Neuronal Status	Freq.	%	M (±SD)
Poor	2	8.3	33.45±5.461
Moderate	6	25.0	
Good	16	66.7	
Total	24	100.0	

M: Mean for total score, SD=Standard Deviation for total score (Poor=14-23; Moderate=24-32; Good=33-42)

DISCUSSION

Findings demonstrated that the (66.7%) out of 24 participants from old age at home exhibited good nutritional status as described by higher mean scores 33.45 (±5.461) (table 4-2-4), this may be due to the old age in home receive special attention from their families in Diwaniyah and many other Iraqi provinces due to the nature of our society's cultural, and the good nutritional status is related to the absence of diseases associated with the aged.

This research supports the findings of Engelheart and Brummer (2018), who researched nutritional status among older persons in the general community and found that the majority of them had good nutritional condition because they were cared for by their relatives.

Furthermore, the current findings are consistent with previous research, such as a study conducted in rural Tamil Nadu by Vedantam et al. (2010), which indicated that the majority of the elderly had good nutritional condition. In their studies, Ferdous et al. (2009), Baweja et al. (2008), and Saka et al. (2010) found comparable results.

From the attention provided by the families of the elderly, which makes them better nourished than those who live in geriatric homes, and this is confirmed by evidence stated that the prevalence of malnutrition in older individuals living alone in the community has been observed to be low (Ülger et al., 2010; Salvà & Pera, 2011).

CONCLUSIONS

Marital status (Old age who are widower significantly improved nutritional status because they live with their families). Education level (Old age who are high school graduated and above is significantly increased nutritional status). Monthly income (Old age who make more than 600

thousand dinars were significantly improved nutritional status). Occupation (Old age who are retired is significantly increased nutritional status). BMI (Old age who are ≥23 is significantly higher nutritional status).

RECOMMENDATION

Old age can be involved in Health Education programs to increase their awareness towards healthy nutrition, weight control and health follow up. There is necessity of implementing public health nutrition-oriented interventions and educational strategies for old age at home consistent aimed at achieving old age nutrition-related behavioural changes.

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AUTHOR'S CONTRIBUTIONS

Study concept; original draft writing; data collection; data analysis; and final edition review by all authors.

DISCLOSURE STATEMENT:

There are no conflicts of interest reported by the authors.

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