



The Impact of Nutritional Status on Health-Related Quality of Life Among Elderly in Rural Areas

Thesis

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Presented by

Ahmed Sabry Sedky Mohammed

M.B., B.Ch

Faculty of medicine, Mansoura University

Supervised by

Prof. Dr. Sarah Ahmed Hamza

Professor of Geriatrics and Gerontology

Faculty of Medicine, Ain Shams University

Prof. Dr. Samia Ahmed Abdul-Rahman

Assistant Professor of Geriatrics and Gerontology

Faculty of Medicine, Ain Shams University

Dr. Asmaa Mohamed Nabel Essa

Lecturer of Geriatrics and Gerontology

Faculty of Medicine, Ain Shams University

*Faculty of Medicine
Ain Shams University*

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الطبيب/ أحمد صبري صدقي محمد

بكالوريوس الطب و الجراحة

كلية الطب-جامعة المنصورة

تحت إشراف

أد/ سارة أحمد حمزة

أستاذ طب و صحة المسنين وعلوم الاعمار

كلية الطب- جامعة عين شمس

أد/ سامية أحمد عبد الرحمن

أستاذ مساعد طب و صحة المسنين وعلوم الاعمار

كلية الطب- جامعة عين شمس

د/ أسماء محمد نبيل عيسى

مدرس طب و صحة المسنين وعلوم الاعمار

كلية الطب- جامعة عين شمس

كلية الطب

جامعة عين شمس

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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

قَالَ

سُبْحَانَكَ لَا عِلْمَ لَنَا
إِلَّا مَا عَلَّمْتَنَا إِنَّكَ أَنْتَ
الْعَلِيمُ الْعَظِيمُ

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List of Abbreviations

ADL	: Activities of Daily Living
ALS	: Amyotrophic Lateral Sclerosis
ASPEN	: American Society of Parenteral and Enteral Nutrition
BC	: Before Christ
BIA	: Biometric Impedance Analysis
BMI	: Body Mass Index
CDC	: Center for Disease Control and prevention
COPD	: Chronic Obstructive Pulmonary Disease
CRP	: C-Reactive Protein
CT	: Computed Tomography
DQI	: Diet Quality Index
DQI-A	: Diet Quality Index-Arabic format
DRI	: Dietary Reference Intake
DRM	: Disease Related Malnutrition
DXA	: Dual energy X-ray Absorptiometry
ESPEN	: European Society of Parenteral and Enteral Nutrition
FFM	: Fat Free Mass
FFMI	: Fat Free Mass Index
GDS	: Geriatric Depression Scale
GIT	: Gastro-Intestinal Tract
GQLQ	: Geriatric Quality of Life Questionnaire
HDI	: Healthy Diet Indicator
HEI	: Healthy Eating Index
HRQoL	: Health-Related Quality of Life
HTN	: Hypertension
IADL	: Instrumental Activities of Daily Living
ICU	: Intensive Care Unit
IU	: International Units
m²	: Square meter
MDS	: Mediterranean Diet Score
MMSE	: Mini-Mental State Examination
MNA	: Mini-Nutritional Assessment
MOS	: Medical Outcomes Studies
NICE	: The National Institute for Health and Care Excellence
QALY	: Quality Adjusted Life Years
QoL	: Quality of Life
RDA	: Recommended Daily Allowance

RNI	:	Recommended Nutritional Intake
SD	:	Standard Deviation
SF-36	:	Short Form Health Survey-36
T2DM	:	Type 2 Diabetes Mellitus
WC	:	Waist Circumference
WHO	:	World Health Organization
WHOQOL-100	:	World Health Organization Quality of Life-100
WHOQOLBREF	:	World Health Organization Quality of Life-BREF
WHOQOL-G	:	World Health Organization Quality of Life-Group
WHR	:	Waist Hip Ratio

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Abstract

Background: Malnutrition is a global health problem especially in extremes of age. Elderly people are a fast-growing group that are 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.

Aim of study: To assess the effect of nutritional status on Health-Related Quality of Life (HRQoL) among community-dwelling elderly living in a rural village in Dakahliya, Egypt.

Methods: A cross-sectional study. A random sample of 170 community-dwelling elderly living in Dakahliya. Demographic data were collected, and comprehensive geriatric assessment was done for each participant including history taking, clinical examination, psychological, mental and functional assessment. Assessment of nutritional status was done using the Mini-Nutritional Assessment (MNA) questionnaire and anthropometric measurements. HRQoL was measured using the Short-Form Health Survey-36 items (SF-36) questionnaire.

Results: The present study showed that among the 170 participants; 45(26.5%) of them were malnourished, 69 (40.6%) were at risk of malnutrition and 56 (32.9%) were well nourished, and showed that HRQoL was significantly poorer in malnourished elderly ($P < 0.001$).

Conclusion: The high prevalence of malnutrition highlights the importance of regular screening of elderly at community settings. As improvement in HRQoL is a growing goal for the worldwide health care and the strong effect of nutritional status on HRQoL, nutritional screening and intervention are extremely important especially for elderly.

Keywords: Malnutrition, Quality of life, Elderly, Community-dwelling, Egypt.

Introduction

Longevity is what everyone desires, but this doesn't necessarily guarantee a good Quality of Life (QoL) (*Rennemark et al., 2009*).

Quality of life is a broad multidimensional concept based on subjective measures of life. More specifically, Health Related Quality of Life (HRQoL) encompasses aspects of quality of life that have been shown to affect health including physical and mental health perceptions (*CDC, 2000*).

HRQoL measures self-perceived health and includes the physical, functional, social and emotional well-being of an individual (*Gomez Pavon, 2010*).

Recently, health promotion in elderly depends on HRQoL rather than mortality or morbidity (*Kostka et al., 2007*).

Elderly are at risk of developing ill health, that impairs HRQoL and make them suffering at their last years (*Naseer et al., 2015*).

Therefore, efforts are directed to determine and modify determinants of HRQoL towards a level that help elderly to live happy and satisfactory life (*Tengland, 2006*).

One of 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 (*Payette, 2005*).

Malnutrition in elderly refers to undernutrition (protein and/or calorie deficiency) (*Bales et al., 2015*).

The criteria for defining nutritional status depends on the tool being used (*Corish et al., 2004*).

The selection of such a tool depends on the population under investigation, as use of anthropometry and questionnaires for nutritional risk screening is more convenient to use in the community compared to medical tests (*Kuczmarski et al., 2000*).

The risk of malnutrition increases with advancement of age (*Margetts et al., 2003*).

One of the contributing factors to malnutrition in elderly is physiological changes with age, such as eating or digestion problems (*Amarantos et al., 2001*), and other is limited instrumental abilities, such as reduced ability to cook or inadequate access to grocery stores (*Kuczmarski et al., 2000*).

The increased risk of malnutrition with aging and demographic changes suggests that malnutrition could be a major public health problem in the future (*Naseer et al., 2015*).

Aim of the work

Assessment nutritional status and its impact on health-related quality of life in a random sample of community-dwelling elderly living in a rural area in Egypt.