

**FACTORS AFFECTING NUTRITIONAL
STATUS OF STUDENTS IN UNIVERSITY
DORMITORIES**

Thesis

Submitted for Partial Fulfillment of The Requirements for M.Sc. Degree in
Community Health Nursing

By

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List of Abbreviations

ACC	Administrative Committee on Coordination
ANZFA	Australia New Zealand Food Authority
BMI	Body Mass Index
CAPMAS	Central Agency for Public Mobilization and Statistics
CDC	Center for Disease Control
D.M	Diabetes Mellitus
FAO	Food Agriculture Organization
GIT	Gastro-Intestinal Tract
HHS	Department of Health and Human Services
IBM	International Business Machines
IFPRI	International Food Policy Research Institute
ILSI	International Life Sciences Institute
PC	Personal Computer
SCN	Subcommittee on Nutrition
SPSS	Statistical Package for the Social Sciences
UN	United Nations
USDA	United States Department of Agriculture
WHO	World Health Organization

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ABSTRACT

Objectives: The aim of this study was to determine factors affecting nutritional status of university students in dormitories through: assessing the knowledge, dietary pattern about nutrition among the students in university dormitories and evaluating the nutritional services in dormitories.

Subjects and methods: A descriptive analytical study for all students who were continued living for four years in Mansoura University dormitories. A total of 400 university students were taken. They were found in the following three dormitories; El-Zahraa (200 female students), Toshki (136 male students) and Gehan (64 female students) were included in this study, and from different faculties. For data collection, 3 tools were used :1) An interviewing questionnaire for assessing socio-demographic characteristics of students, nutritional health problems, assessing dietary knowledge, eating habits, opinions of students regarding to dormitory services and recommendations of students regarding services of the dormitory. 2) Anthropometric measurements which included weight and height 3) An observational checklist to assess [a] the food handlers [b] the dormitory environment.

Results: The results revealed inadequate dietary knowledge specially among male students and inadequate dietary habits of the students. Personal hygiene of food handlers was toward negative response in addition to presence of cats in dormitory restaurants.

Conclusion and recommendations: Significant differences were detected between nutritional knowledge, dietary habits, dormitory services and gender, and residence of the students. GIT problems dental decay were the most common health problems among students in dormitories. About one third of female students were taking more than the recommended calories/day. The study detected that the nutritional system of the dormitory was affecting the nutritional status of the students. Most of the students were missing the dormitory meals due to time of meals and insufficient cooking of food. Breakfast was the most frequent skipped meal. It is recommended that a sound information and healthy habits concerning nutrition to be taught to university students and food handlers in dormitories, and changing the nutritional system in the dormitories. Nurses can play a vital role in promoting and protecting the optimal health status of students, screening, evaluating, and referring, identifying and interpreting the health status of the students to dormitory personnel.

Keywords: University students, nutritional status, dormitory.

INTRODUCTION

A college campus setting may be a critical setting for the development and maintenance of healthful dietary behaviors as well. As adolescents transition from high school to college, oftentimes their physical and social environments change. Consequently, their lifestyles change substantially as well, and the prevalence of health risk behaviors such as unhealthful dietary patterns, and physical inactivity (**McArthur et al., 2000**).

Health of the university students is of vital importance to the community as they represent the future existence and prosperity for the country. University period is the late stage of adolescence in which, WHO puts the ages between 11 and 21 for adolescence stages (**Polnay, 2002**). Different health services are offered to the university students group through the university facilities supply, including the quick cold or hot meals and drinks through food handlers working in the kitchens of the university dormitories. A variety of infections can be transmitted to these students through food handlers, serving food or drinks (**Shimbo et al., 2004**).

During university period, a multitude of nutritional imbalances as nutrient requirements peak while lifestyle choices can compromise dietary intake. Most focus on this age group tends to be about issues of weight: obesity, dysfunctional eating, and eating disorders (**Doris et al., 2003**).

Nutritional status is a degree of balance between nutrient intake and metabolic requirements and it is affected by physical, psychosocial, developmental, cultural, and economic factors (**Insel et al., 2002**). Nutritional status has a significance on both health and disease. For the "well" student, an optimal nutritional status helps maintain health,

promotes normal growth and development, supports activity, and protects against disease. During illness, an optimal nutritional status can reduce the risk of complications and hasten recovery (**Tulchinsky and Varavikova, 2000**).

Adolescents constitute the major and most important sector of the population. The current generation of Egyptian adolescents is numerically the largest segment of the population, and it is estimated to amount to 15 millions persons, accounting for about one fifth of the overall population (**Kishk et al., 2004**). It is estimated that 46.6 % of adolescents are anemic. Poor eating habits are the main reason for the high rates of anemia among adolescents in Egypt (**El-Shan et al., 2000**). Nutrition is an essential component of total adolescence health care. Changes occurring during adolescence can cause a crisis in the nutritional needs. Eating habits may change from regular meals prepared at home to irregular meals, skipped meals, nutrition- poor snacks and fast- food meals. Adolescents have been found to have the highest prevalence of any age group of an unsatisfactory nutritional status (**Polnay, 2002**).

Nurses can play a vital role in planning policies at the local and national level that support and encourage healthy food environments, performing assessments of the nutritional status of students, and spearheading the implementation of evidence-based health promotion programs. It is time for nurses to take the lead in efforts aimed at improving the quality of students' dietary intake in the campus setting (**Malone, 2005**). Community health nurse acts as a care provider, advocate, manager and educator and she is responsible for the following: Promoting and protecting the optimal health status of students, screening, evaluating, and referring, identifying and interpreting the health status of the students to dormitory personnel, initiating referrals physicians, and other community health resources for intervention and

follow-through, providing ongoing health counseling with students and dormitory personnel, recommending and helping to implement modification of dormitory programs to meet student's health needs, promoting and assisting in the control of communicable diseases through monitoring of immunization status (**Barkauskas and Baumann, 2002**).

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Aim of the Study

This study aimed to :

Determine factors affecting nutritional status of university students in dormitories through:

- 1- Assessing the knowledge, dietary pattern about nutrition among the students in university dormitories.
- 2- Evaluating the nutritional services in dormitories.

Research questions :

- Is there a relation between sociodemographic factors, dietary knowledge and dietary habits of college students in dormitories?
- What are the most common health problems among college students in dormitories that can affect their nutritional health status ?
- Are the students in dormitories taking the recommended calories/day ?
- Can the nutritional system of the dormitory affect the nutritional status of the students ?

Part I. Healthy Nutrition

Nutrition is a scientific discipline, concerned with the access and utilization of food and nutrients for life. The scope of human nutrition is vast, ranging from biological and metabolic nutrition, through whole body and clinical nutrition, to the massive public health nutrition issues of nutritional programs and the global prevention, control and elimination of malnutrition and nutritional disorders **(WHO World Health Organization, 1999)**.

Nutrition is one of the most important single factors for the health of the individual or the community, and is, consequently a fundamental issue in modern public health. Optimal health is found in good nutrition. So that, eating the right kinds and amount of food with good dietary habits throughout the entire life cycle means healthier bodies and minds, greater vitality and energy, greater resistance to diseases, efficiency and happiness **(Tulchinsky & Varavikova, 2000)**.

- Nutritional Status

The nutritional status is a reflection of the individual nutritional health. The health of the individual is affected by the intake, storage and use of nutrient. Adequate nutrition is essential for normal body functioning, growth, resistance to infection, and repair of tissue **(Grodner et al., 2000 and Dudeck, 2001)**.

Furthermore, it was found that nutritional status reflects the adequacy or inadequacy of a person's diet in supplying nutrients essential to life and well being. Adequate nutrition requires a balance between body needs and available nutrients and is associated with a subjective feeling of well being and health. Extremes of under and over supply of food can lead to illness and death **(Lawrence and Green, 1994)**.