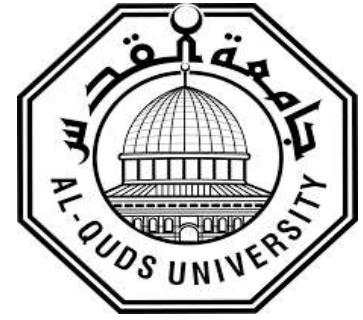


Deanship of Graduate Studies

Al-Quds University



**Assessment of Knowledge, Attitude, and Practice among
Nurses toward Nutrition Care in Hospitals at Hebron / West
Bank**

M.Sc Thesis

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Jerusalem-Palestine

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**Assessment of Knowledge, Attitude, and Practice
among Nurses toward Nutrition Care in Hospitals at
Hebron / West Bank**

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Dedication

My sincerest gratitude to my supervisors, Dr. Kefah Zaben, for help in planning, guidance, support, and encouragement.

Thank you also to the nurses from all of the hospitals, which were involved in the study. Without whom this thesis would not have been possible, also with all of my love and my respect to my teachers at Al-Quds University.

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Faculty team in Al-Quds University

Finally, my thanks go to all the people who have supported me to complete the research work.

Hala Ibrahim Ali Shalaldah

Declaration

I certify that this thesis which is submitted to the Deanship of Graduate Studies to get the degree of Master in Public Health, this is my own research and my own work and it doesn't submit to any other universities or any institutions.

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Abstract

Background: Accountability in identifying nutritional issues, evaluating patients' nutritional status in clinical settings, creating diet plans, and advising patients about specific dietary modifications are all part of maintaining appropriate nutrition for patients and clients. However, there are not enough dietitians and nutritionists to meet the growing needs of an aging population because they interact with patients the most. Nurses are essential multidisciplinary players in nutritional care. They routinely perform preliminary nutritional assessments, refer patients, and work with patients, their families, or important caregivers to support recommendations for changing meal planning and implementing special diets.

Aim: This study aimed to assess nurses' knowledge, attitude, and practice toward nutrition care in Hebron/Palestine.

Method: This is a descriptive cross-sectional study, including all nurses who work in selected hospitals in Hebron, Yata Hospital, Mezan Hospital, Mohtseb Hospital, Alia Hospital, Hebron Red Crescent Hospital and have direct contact with patients. 200 nurses participated in the study out of 220 nurses. Data were collected by valid and reliable (Cronbach Alpha 0.81) self-administered questionnaire that asked about Nutrition knowledge, attitudes, and practices of nurses with their sociodemographic factors. The data were analyzed using the Statistical Package for Social Sciences (SPSS), version 25.

Result: Most nurses (77%) were under 30 years old. Participants showed insufficient knowledge of Nutrition. The study shows positive attitudes towards nutrition among the participants. However, results found good practices toward nutrition, 89.5% of them agree that the protocols for nutrition screening and assessment are available in their hospital.

Conclusion: The study shows insufficient nutritional knowledge and neutral attitudes among nurses, while their practices are good. The study also shows that most of the participants receive nutrition training in their universities. In addition to effective and efficient training and teaching programs in all hospitals to target all nurses who have direct patient contact, it is advised that nutrition curricula be added to medical and nursing schools.

تقييم مدى المعرفة والمواقف والممارسات لدى الممرضين والممرضات فيما يتعلق بالرعاية التغذوية في مستشفيات الخليل- الضفة الغربية

اسم الطالب : حلا ابراهيم علي شلالدة

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الملخص

خلفية البحث: ان تحديد المشكلات الغذائية، وتقييم الحالة التغذوية للمرضى في البيئات السريرية، وإنشاء خطط النظام الغذائي، وتقديم المشورة للمرضى حول تعديلات غذائية محددة، كلها جزء من الحفاظ على التغذية المناسبة للمرضى والعملاء. ومع ذلك، لا يوجد عدد كافٍ من أخصائيي التغذية لتلبية الاحتياجات المتزايدة للسكان. الممرضون يلعبون دوراً متعدد التخصصات في الرعاية الغذائية. يقومون بشكل روتيني بإجراء تقييمات غذائية أولية، وإحالة المرضى، والعمل مع المرضى أو أسرهم أو مقدمي الرعاية المهمين لدعم التوصيات المتعلقة بتغيير تخطيط الوجبات وتنفيذ أنظمة غذائية خاصة.

هدف البحث: هدفت هذه الدراسة إلى تقييم معرفة واتجاهات وممارسة الممرضين في المستشفيات تجاه الرعاية الغذائية في مستشفيات الخليل/فلسطين.

إجراءات البحث: هذه دراسة وصفية مقطعية، شملت جميع الممرضين الذين يعملون في مستشفيات مختارة في الخليل، مستشفى يطا الحكومي، مستشفى الميزان، مستشفى المحتسب، مستشفى عالية، مستشفى الهلال الأحمر في الخليل ولهم اتصال مباشر مع المرضى. شارك في الدراسة 200 ممرض من أصل 220 ممرض. تم جمع البيانات عن طريق استبيان ذاتي يتمتع بدرجة عالية من الدقة والثبات (Cronbach Alpha 0.81) والذي سأل عن المعرفة والمواقف والممارسات التغذوية للممرضات مع العوامل الاجتماعية والديموغرافية الخاصة بهم. وتم تحليل البيانات باستخدام الحزمة الإحصائية للعلوم الاجتماعية (SPSS، الإصدار 25)

النتائج: معظم الممرضات (77%) كانت أعمارهن أقل من 30 سنة. أظهر المشاركون معرفة غير كافية تجاه التغذية. وتظهر الدراسة مواقف ايجابية تجاه التغذية بين المشاركين. ومع ذلك، وجدت النتائج ممارسات جيدة تجاه التغذية، حيث وافق 89.5% منهم على أن البروتوكولات لغرض فحص وتقييم التغذية متوفرة في المستشفى الخاص بهم.

الخاتمة: أظهرت الدراسة عدم كفاية المعرفة الغذائية وكانت المواقف التغذوية ايجابية لدى الممرضين، في حين أن ممارساتهن جيدة. وتظهر الدراسة أيضًا أن معظم المشاركين يتلقون تدريبًا غذائيًا في جامعاتهم. بالإضافة إلى برامج التدريب والتعليم الفعالة والكفوة في جميع المستشفيات لاستهداف جميع الممرضين الذين لديهم اتصال مباشر مع المرضى، ينصح بإضافة مناهج التغذية إلى كليات الطب والتمريض.

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Chapter One

Introduction

1.1 Background:

Nutrition is an important part of health promotion since it helps to control and prevent numerous diseases, including hypertension and diabetes¹. Humans must pay close attention to nutrition at all times of their lives, including preconception, pregnancy, lactation, childhood, adolescence, menopause, and old age. In developing nations, nutritional engagement in the treatment process is frequently overlooked, despite a significant increase in the numerous burdens of undernutrition, overnutrition, Noncommunicable Diseases (NCDs), and related comorbidities. Nutritional education is essential for promoting good eating habits⁴. However, simply knowing about nutrition may not be enough to modify dietary patterns; a good attitude toward healthy eating habits must also be promoted.

Hospitalized patients' nutritional status falls under clinical nutrition, which focuses on preventing, diagnosing, and managing nutritional and metabolic changes associated with acute and chronic diseases, as well as conditions caused by nutrient deficiencies or excesses (T Cederholm et al., 2017).

Nurses are often the first members of the healthcare team to notice a patient's feeding issues (Boaz ,2013), As a crucial component of nursing knowledge and practice, nutrition is taught to student nurses as part of their curricula at universities, some patients are interested in hearing a nurse's opinion on the compatibility of their nutritional consumption with their current health status. Therefore, nurses should be willing to provide nutritional advice (Naser et al., 2021). They frequently conduct initial nutrition screenings, refer patients, and facilitate recommendations to modify diet plans and implement special diets with patients, their families, or significant caregivers (Ali et al., 2020).

The trend toward lowering the cost of hospital treatment expands healthcare providers' responsibilities to reduce the actual number of clinicians working with each client. The dietician is the dietary specialist on the healthcare team. However, the nutritionist is not always present to answer patients' nutritional questions. Furthermore, hospitalized patients are typically less inclined to follow nutritional guidelines. Pain, anxiety, or drugs may impair their ability to learn about healthy eating. Nurses have a critical role in nutrition management for their patients. They have the most direct contact with patients and are frequently available as a nutritional education resource in the absence of the dietician (Al-shwaiyat et al., 2013).

Routine clinical practice is heavily reliant on nurses, they determine the requirement for optimal nutrition, support during meals, monitor intake, and assess nutritional risk, If the necessary amount of food is not consumed, they provide appropriate solutions (Bjerrum et al., 2011). Humans must pay particular attention to nutrition at several times of the life cycle, including conception, pregnancy, lactation, childhood, adolescence, menopause, and old age (Givens, 2018).

The promotion of health and the prevention of disease both depend heavily on nutrition. However, institutionalized patients around the world frequently experience undernutrition and receive insufficient nutritional treatment. Nutritional knowledge is considered a crucial factor in making healthy food choices and ensuring adequate nutrient intake in all age groups (Ali et al., 2020).

In the critical care unit, nurses are crucial to the assessment, monitoring, and follow-up of numerous complex processes, one such procedure is the delivery of artificial nourishment, which is now a crucial part of the whole package of care intended to improve patient outcomes. However, because of ignorance, a lack of communication, or a failure to report, worsening in patient condition frequently goes undetected for an extended period of time (Ben-Tovim & Theilla, 2021).

Malnutrition is defined as "a state of insufficient calorie or protein intake or absorption" its most important signs are Weight loss and modifications to the body's composition are marks of malnutrition; Nurses must have nutrition knowledge and skills, as well as the ability to prevent nutritional deterioration and cure malnutrition once it has developed (Ferrari et al., 2018).

Malnutrition must be identified and treated as soon as possible in hospitalized patients to avoid poor outcomes. As part of the general admission process, hospitals are now required by the Joint Commission to screen for the risk of malnutrition. However, due to differences in definitions and tools used to screen and diagnose malnutrition, hospitals have found it difficult to standardize this process (Rockville,2020). More than 30% of medical inpatients are at increased risk of malnutrition, a condition that is strongly associated with

increased mortality and morbidity, functional decline, prolonged hospital stays, and increased costs of health care (Schuetz et al.,2019, Mizrahi & Waszyńska,2020).

In order to prepare nurses as future health professionals to deliver nutrition care that is appropriate for their patients' requirements as well as their own, the study by laing & crowley (2021) stated that the current undergraduate nutrition education program falls short in this regard. to improve nurses' ability to assist patients with their long-term health and present dietary issues on a professional level.

1.2. Problem statement

Nurses play an important role in the nutritional care process, which includes any practice performed to improve a patient's food-related behavior and subsequent health outcomes However, quality nutrition care measures in hospitals are lacking in Palestine. Planning and developing strategies and interventions necessitates a thorough understanding of what health staff actually know and practice in routine nutritional care, as well as what personal factors and barriers influence nutrition practice and attitude(Shakhshir.2020).

Although patients expect medical health workers to provide nutritional counseling, their expectations are not always met. In a study aimed to investigate the nurses' and doctors' nutritional knowledge, attitude, and practice (KAP) at major Gaza Strip Palestinian hospitals. was determined that doctors and nurses required to enhance their nutritional knowledge, attitudes, and behaviors since they were unable to offer effective nutrition intervention in healthcare settings. (Naser et al., 2021).

However, there is a lack of studies in Palestine particularly in the West Bank to assess the level of knowledge attitude, and practice of nutrition care among nurses in Palestine

1.3 Study justifications:

Since nurses are frequently, the first members of the medical team to provide patients with nutrition, their attitudes and knowledge about nutrition care are crucial to the assessment and intervention of patient nutrition. (Boaz et al.,2013).

The reason the current study was chosen is that not enough research has been done to evaluate the knowledge, attitude, and practice of nurses toward nutrition care in Hebron West bank. and may be help policymakers and managers in the Palestinian Ministry of Health to put a planned strategy to develop nutritional care information and thus improve nutritional status, and put database information to researchers to assess the nurses' knowledge and practice of providing healthy nutrition care to patients in hospitals.

1.4 Main objective:

To assess the knowledge, attitude, and practice of nurses working in selected hospitals toward nutrition care in hospitals at Hebron/West Bank.

1.5 Specific objectives:

1. To assess the level of knowledge of nurses toward nutrition care in selected hospitals in Hebron
2. To evaluate the level of practice of nurses regarding nutrition care in selected hospitals in Hebron
3. To identify the level of attitude of nurses toward nutrition care in selected hospitals in Hebron

4. To identify if there is a significant relationship between knowledge, practice, attitude, and sociodemographic data.

1.6 Study Research Questions:

1. **What is the level of knowledge of nurses toward nutrition care in hospitals in Hebron?**
2. What is the level of practice of nurses toward nutrition care in hospitals in Hebron?
3. What is the level attitude of nurses toward nutrition care in hospitals in Hebron?
4. Is there are significant relationship between the knowledge, practice, and attitude of nurses regarding nutrition care in hospitals and sociodemographic factors?

1.7 Conceptual and Operational Framework

Conceptual framework: The conceptual framework serves as a road map for the study and illustrates how various variables relate to one another.

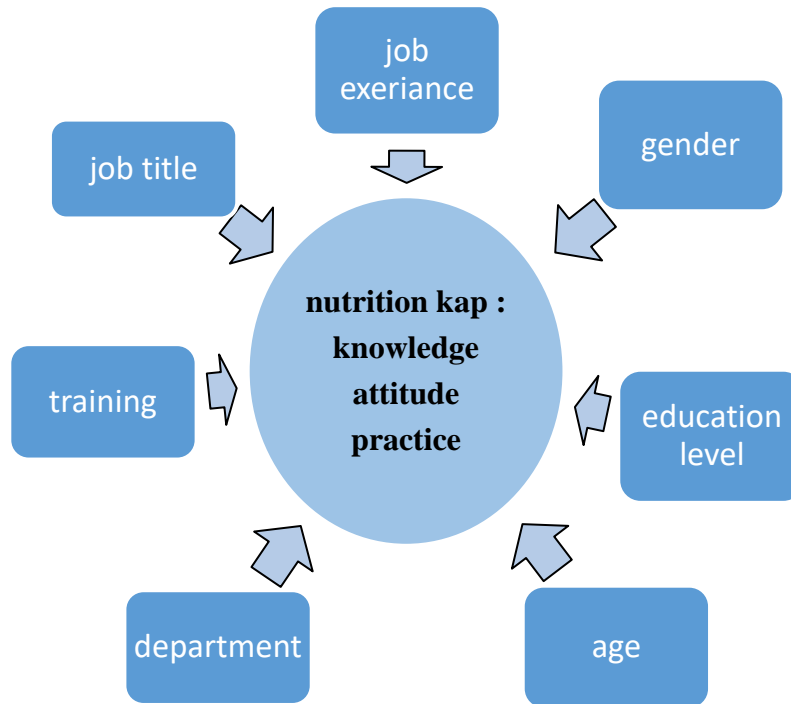


Figure 1.0: Conceptual framework

1.7.1 Conceptual definitions:

Independent variables

The sociodemographic variables in the current study, such as age and gender, as well as other characteristic :department, current job title, length of experience, nutrition training, and educational level are considered independent variables.

Socio-demographic and other variables:

The questionnaire's first section contain these factors. The purpose of questions 1 through 7 in section one is to evaluate these variables in the manner described below.

Age: is the length of time that something or someone has existed (Cambridge Dictionary)

Gender: The socially constructed traits of males, women, girls, and boys are referred to as gender. This encompasses interactions between people as well as the standards, behaviors, and

roles that come with being a woman, man, girl, or boy. Gender is a social construct that differs from culture to culture and is subject to change (who,2019).

Department:

- 1 **Neonatal and Pediatric Nurse:** A nurse works with Neonatal sick babies or pediatric children in maintaining their normal care.
- 2 **NICU Nurse.** Babies are admitted to the hospital's NICU when they are delivered prematurely, have health issues, or have a rough birth. The acronym NICU represents "neonatal intensive care unit." Babies receive care from a team of professionals there.
- 3 **Medical and surgical nurse:** 3. Medical and surgical nurses: They provide preoperative, intraoperative, and postoperative care for patients undergoing both elective and life-saving surgeries.
- 4 **Cardiac care unit,** or CCU for short, is a specialist unit for patients with heart-related issues.
- 5 **Intensive care unit (ICU)** is a dedicated section of a hospital or healthcare facility that offers critical medical treatment.

Job title: An organization's job title is a specific name for a position that is typically linked to a job description outlining the duties and responsibilities of the position (Your dictionary, 2020).

- **Head nurse:** Healthcare workers that perform managerial and nursing responsibilities are known as head nurses. Staff nurses who exhibit experience and a high degree of expertise are frequently promoted to this managerial role. In their healthcare facility, head nurses oversee the nursing staff and act as the main point of contact for the nurses with the physicians, administrators, and other professionals. (career guide ,2021)

- Supervisor nurse: The main objectives of nursing supervisor positions are to improve patient care delivery, quality, and results, with a focus on accomplishing significant clinical healthcare goals. A typical job description for a nurse supervisor includes supervising nursing staff and developing policies and procedures for effective patient care (Norwich University, 2019).
- Registered nurses (RNs) deliver, organize, and oversee medical care while informing the public and patients about a range of health issues (U.S. Bureau of labor statistic ,2022)
- Several forms of gynecological, prenatal, and postpartum care are provided by a nurse-midwife. (baker college ,2021)

Experience: refer to years that a person has acquired in a particular sector of employment.

Dependent variables:

Nurse's knowledge of nutrition care:

Nutrition care is defined as Any action performed by a medical expert to enhance a person's eating habits and subsequent health outcomes (Dumic et al.,2018). According to Nutrition Care Process Model approved by the Academy of Nutrition and Dietetics, nutritional care comprises nutritional assessment, diagnosis, intervention and monitoring and evaluation (Vrkatić et al., 2022).

Nurse's attitude of nutrition care:

An attitude is just a state of mind toward something, a reality, or a circumstance. Because our actions convey our attitudes, how we behave tells others how we feel about a particular issue. Once upon a time, it was thought that once we acquired an attitude, we were unable to modify it. However, psychologists assert that we frequently follow our own instructions. As a result, when

we have negative attitudes, they influence the standards we set for ourselves, which in turn influence the way we act (Congos, D. K., n.d.).

Nurse's practice of nutrition care:

Practice is characterized as the growth of knowledge, abilities, and experiences for the aim of competently carrying out tasks or activities connected to a discipline of producing or delivering value (Lean & Six Sigma professionals, 2022)

Nurses are usually closer to the patient and his family than the nutritionist and act as a link between the dietician and the patient, He promotes nutritional advice, apply nutrition-related practices, perform the necessary nutritional assessment and assist the patient in changing the feeding patterns he needs(Dudek, 2014).

1.7.2 Operational definition:

The self-administered questionnaire used in this study was created by (Naser et al.,2021) which was composed of five sections and fifty-five questions.

Eight questions in the first section of the questionnaire asked about the research population's sociodemographic including age, gender, years of experience, work department, hospital type, and job title. nutrition training, and educational level.

Gender:

In study gender will be assessed by question (1) which consists of 2 categories as the following:

Q.1 what is your gender?

I. Male

II. Female

Age:

In the current study age will be assessed as the following:

Q2: age of participant:

1. Less than 30 years
2. 31-41 years
3. More than 41

Department:

In the current study department of work of nurses be assessed by question (3) as the following:

Q3: What department are you currently working

- 1) Neonatal and Pediatric Nurse
- 2) NICU Nurse.
- 3) Medical and surgical nurse
- 4) ICU and CCU .

Job title:

In the current study job title will be assessed by question (4) which consists of 4 categories as the following:

1. Head nurse
2. Staff nurse

Experience

In the current study length of experience will be assessed by question (5) which consists of 3 categories as the following:

1. Less than 5 years
2. 5-10 years
3. More than 10

Nutrition training:

In the current study Nutrition training will be assessed by question (6) which consists of 3 categories as the following:

1. College training
2. Other training
3. I did not receive training

Level of education:

In the current study Nutrition training will be assessed by question (7) which consists of 4 categories as the following:

1. Diploma
2. Bachelor's degree

3. Master degree

4. Others

1.10. Summary:

After review of the studies there is a gap in literature there is gab in studies that assess the knowledge, attitude, and practice among nurses toward nutrition care, so the researcher found that there a need to do the current research

Chapter Two

Literature Review

2.1 Introduction

Nutrition care refers to any action performed by a medical professional to enhance a person's eating habits and subsequent health outcomes. (Dumic, 2018). Nurses provide comprehensive care to patients, and nutrition is one of the most important needs that nurses provide throughout the continuum of care; It is crucial to understand and apply nutrition knowledge and abilities to all facets of health care, and all nurses require foundational training to accurately analyze dietary intake and give patients the right advice, counseling, and treatment (DiMaria-Ghalili,2014).

In most countries, nurses typically control the nutrition care system. By raising their level of understanding of nutrition's role in illness prevention and treatment (Kris-Etherton et al., 2014). It is accepted that nutritional counseling is the first line of treatment for many chronic conditions. Nurses or other healthcare providers may employ nutritional counseling to enhance the nutritional status and achieve healthcare objectives, even though it is typically carried out by dietitians, to have a meaningful impact on disease prevention, treatment results, and population health, methods must be created and included into nursing education and training programs (Vasiloglou & Fletcher, 2019)

2.2 Knowledge, attitudes, and practices related to nutrition care

2.2.1 nurse's knowledge of nutrition care

Nutritional knowledge is defined as The ability to recognize fundamental information about food and nutrients and their effects on a person's health. Having the necessary information and abilities to assess nutritional hazards enables general practitioners to take action to prevent, control, and treat diseases connected to nutrition (Vrkatić et al.,2022).

(Nurdan, 2013) conducted a descriptive questionnaire to determine the nutrition knowledge level of the nurses working at three hospitals in Zonguldak, Turkey, the mean nutrition knowledge of all participants was obtained as 49.44 ± 10.95 over 100 points. The study concluded nurses who conducted nutritional assessment activities had a statistically significant higher knowledge score compared to those who did not ($p=0.012$), and emphasized the need of a review curriculum regarding the education about clinical nutrition education institutions, and a systematic continuing nutrition education program should be arranged.

A study by Shakhshir (2020) aimed to evaluate the nutritional knowledge of nurses and physicians in clinical care in north Palestine and to determine the relationship between knowledge and demographic data showed there was a significant association in hospital unit and age with knowledge of nutritional care, and there was no significant association between gender, type of hospital, job title and years of experience.

Also, another cross-sectional survey conducted by (boaz et al., 2013) aimed to measure the association between nutrition knowledge and attitudes about nutrition care and feeding patients among nurses working in hospital settings in the south of Israel, found that

the mean proportion of correct responses to the nutrition knowledge questionnaire was $51.9\% \pm 0.1\%$.

A cross sectional study by Abdollahi et al, (2013) aimed to determine nutrition knowledge level of health care providers in some teaching hospitals in Tahrán has found that nurses have poor knowledge especially in clinical nutrition topics and the study emphasized on increasing knowledge level of clinical staff as an effective factor in paying attention to the importance of nutrition care as a part of treatment and care regime of the patients.

Four studies were conducted to assess the knowledge, attitude and practice regarding nutrition care in Nurses and physicians, determined associations between nutrition knowledge and demographic variables such as age, gender and educational level (Ghazi et al.,2018), (Martin et al.,2014), (Mogre, 2017), (Alkhalidy,2019).

2.2.2 Nurse's attitude toward nutrition care

Nurses' attitudes toward nutrition care play an important role in patient nutrition assessment and intervention (Boaz et al.,2013). Attitudes must be examined and understood in order to better understand how to introduce and enhance the delivery of nutrition information in clinical care (Keaver, 2018).

Naser et al. (2021) conducted a study to explore the nutritional knowledge, attitude, and practice (KAP) of nurses and physicians who are working at major Palestinian hospitals in Gaza Strip showed that the obtained percentages of attitude among nurses were 54.2% positive, 22.9% neutral, and 22.9% negative, showing that improving attitudes toward

nutrition is necessary not only in the Palestinian context but also in other regions of the world.

In this study Lyu et al., (2021) performed a cross-sectional study aimed to explore the current status of knowledge, attitudes, clinical practice, and barriers in nutrition support among physicians and nurses working in Chinese Emergency Departments (EDs), and the relationship between their demographic variables and knowledge and attitudes regarding nutrition support, found that attitudes were very positive (4.15/5), more so among nurses compared to physicians. Only few (5.6%) respondents reportedly assessed nutritional condition for all patients , The most common barriers to optimizing nutrition support were being too busy, lack of standardized protocol specific to ED, and lack of teamwork and coordination.

2.2.3 Nurse's practice toward nutrition care

In the study done by Al-Ghabeesh et al. (2012) to explore the sources of knowledge Jordanian registered nurses use during their practice, believe that understanding sources of knowledge used in everyday practice is very helpful in improving the quality of healthcare services, This study used a descriptive correlational design to examine what does Jordanian registered nurses use during their practice as sources of knowledge, the study shows that the information learned during nursing education, personal experience in nursing over time, and acquired knowledge from providing care to patients, are the top three ranked sources used by Jordanian registered nurses in addition to other sources.

In order to evaluate nutrition practice Laur (2016) used a questionnaire that is appropriate for a wide range of healthcare professionals working in the hospital context was devised. The goal was to reflect best practices in nutrition care and could be used as one of a number of tools for a

needs assessment when implementing behavior change in nutrition care. Administration challenges were noted and analyses were completed to determine differences across sites, professions, and years of practice.

A cross-sectional descriptive study was performed at Tabriz University of medical science by Mahmood poor et al. (2021) aimed to assess the current level of KAP of nurses in intensive care units (ICUs) showed that from 110 nurses were included in this study 45.5% had moderate practices, the nursing practice also had a significant relationship with age, work experience in the ICU, and the level of education, and found that nurses surveyed in this study had a moderate practice.

Martin et al. (2019) used a cross-sectional survey aimed to investigate the perceptions of Australian practice nurses on the provision of nutrition care for chronic disease management, including specific nutrition-related activities. showed that almost all practice nurses (89%) believed it was critical to bring up diet anytime a patient needed care. More than half of practicing nurses (61%) weren't sure if their methods helped patients follow dietary advice more frequently, and the majority of practicing nurses (98%) believed that further nutrition education would help them in their job.

Chapter Three

Methodology

This chapter outlines the research methodology used. It starts by explaining the research design and methods, including the study population and its eligibility criteria, sample size, sampling technique, recruitment process, data collection method, data analysis methods, validity and reliability of the research instrument and ethical considerations.

3.1 Research design

The current study was used a quantitative, cross-sectional descriptive research design.

A cross-sectional study is one of the most common study designs. In this type of research study, the population or a subset of it is selected and data is collected to help answer relevant research questions (Kesmodel, 2018).

3.2 Study Population

The target population of the current study is the nurses who work in Alia hospital, Mohammad Ali Mohtaseb-hospital, Yata hospital, Ahli hospital, Al-Mezan hospital, and Palestine Red Crescent hospital, the total population of the study 700 nurses.

Table (3.1): The total population description of the six hospitals.

Hospital	Hospital type	Governorate	Total
Princess Alia hospital	Governmental	Hebron	247
Mohammad-Ali Mohtasseb hospital	Governmental	Hebron	42
Yata hospital	Governmental	Hebron	63
Ahli hospital	Private	Hebron	172
Al-Mezan hospital	Private	Hebron	92
Palestine red crescent hospital	Private	Hebron	84
Total population			700

3.3 Study sample

The sampling is systematic; the sample size was calculated by using G power software. An alpha level of (0.05) was considered and (80%) power was considered, and the effect size was (0.25).

The required sample size is 200 nurses, with probability proportional to size.

Table :(3.2) The numbers and percentages of patients from the six hospitals

Hospital	Sample	Percentage
Princess Alia hospital	43	21.5%
Mohammad Ali Mohtaseb Hospital	12	6%
Yata hospital	18	9%
Ahli hospital	49	25%
Al-Mezan hospital	26	13%
Palestine red crescent hospital	24	12%
Total	200	100%

3.4 Setting

The study was conducted in 6 hospitals in Hebron which The hospitals are Princess Alia hospital, Mohammad Ali Mohtaseb-hospital, Yata hospital, Ahli hospital, Al-Mezan hospital, and Hebron Red Crescent hospital. Ahil, Yata, and Mohammad Ali Mohtaseb are governmental hospitals, Al-Mezan, Palestine red crescent hospital, Ahli are private hospitals.

3.5 The eligibility criteria.

3.5.1 Inclusion Criteria

- Nurses who work in targeted wards in hospital (medical surgical, ICU, CCU, Neonatal and Pediatric, and NICU)
- Registered nurses

3.5.2 Exclusion Criteria

- Nurse who works in Anesthesia, Labor and Delivery Nurse, and emergency nurses
- Part time nurses and volunteer
- Nurses under training

3.6 Study Tool:

The tool that was used in the current study is a self-administered questionnaire which developed by Naser et al., (2021)

The questionnaire has five parts: socio-demographic items (age, gender, department, current job title, length of experience, type of hospital, nutrition training, educational experience), the second part involved general nutrition care statement, the third part involved Knowledge questions, the forth part involves attitude questions, last part involves practice questions.

Four items in the second section of the questionnaire addressed the general nutritional care that hospital nurses provide. The participants were questioned about practice constraints and how they used nutrition-related methods in patient care.

The third portion of the questionnaire of eighteen questions that tested respondents' knowledge of nutritional science. Questions on nutrition were asked of both nurses and doctors on a variety of carefully chosen themes. This technical aspect was reviewed by a committee of technical experts. Their feedback was taken into consideration while creating the final version of the questionnaire, and the study's face validity was confirmed.

The views of nurses working in clinical practice toward the use of nutrition care, treatments, and disease prevention were the focus of the questionnaire's fourth section, which had eighteen

questions. Positive and negative nutritional statements with a three-scale degree of agreement are included in the attitude component of the questionnaire.

Lastly, the fourth component of the questionnaire consists of seven questions about the usual, was designed to assess the participants' practice. After completion, the researcher will classify the nurses as follows; poor practice and good practice. This section consisted of questions about the practice of nurses toward nutrition care and support using 5-point Likert-type scale responses (4 = strongly agree, 3 = agree, 2 = neutral, 1 = disagree, 0 = strongly disagree). The questions in the questionnaire were adapted from the previous study (the study). Participants who gained a score of less than 70% will be classified as poor practice, and the participants who gained a score of 70% and more will be classified as good practice.

Table (3.3): The Instruments of the current study and the numbers of their questions:

No	Instruments	Number of questions in each instrument category:
1.	Socio-demographic self- administration sheet, age, gender, department, current job title, length of experience, nutrition training),	8 questions socio-demographic data
2.	General nutrition care statements	4 questions
3.	knowledge statements	18
4.	Attitude statements	18
5.	Practice statements	7

3.7 Validity and Reliability

The self-administered questionnaire designed by Naser et al. (2021) was the instrument utilized in this study. After validity and reliability analyses, Cronbach's alpha was used to evaluate the revised tool's reliability in terms of (a) the degree to which the question's individual items fit together and (b) whether or not they assess the same construct. The value was 0.81. Prior to gathering data, the researcher verified the reliability.

3.8 Pilot study

In order to assess the viability and enhance the design, twenty questionnaires were distributed to nurses at Alia Hospital. Those who got the questionnaires were requested to provide twenty suggestions in any area. To make it easier to grasp, a few minor format and linguistic changes were made. The "Cronbach Alpha coefficient" was used by the researcher to gauge the instruments' internal consistency. The knowledge component scored 0.812, the attitude component scored 0.725, and the practice component scored 0.901.

3.9 Data collection plan:

After getting the approval from the Public health faculty at Al- Quds university and approval from the administration of the six hospitals, the process of distributing of the questionnaire was began, and the researcher by himself was distribute and recollect the questionnaires from the participants. The data was collected during the beginning of 2023 and the researcher was used a convenience sampling approach. And all participants were fill out the questionnaires by themselves and the researcher was available to answer any questions from the participants.

3.10 Ethical consideration and accessibility

- Ethical approval was received from Al-Quds University. Participants received an information sheet detailing the purpose, goals, and methods of the study, as well as the knowledge that their participation would remain anonymous and they would have the option to decline. A formal letter outlining the proposed study's objectives was written to the general directors of the six hospitals: Princess Alia Hospital, Mohammad Ali Mohtaseb Hospital, Yata Hospital, Ahli Hospital, Al-Mezan Hospital, and Al-Hilal Hospital.
- A consent form that is used to guarantee that nurses agree to participate in the study after being fully informed about privacy, confidentiality, and their ability to revoke consent at any point while completing the questionnaire

3.11 Data analysis plan:

Following the completion of data collection, the Statistical Package for Social Science (SPSS) was used to enter the data. The SPSS program version 25 was used to conduct the statistical analysis. The demographic and clinical features of the individuals will be described using descriptive statistics (means, standard deviations for continuous variables, frequency distributions, and proportions for categorical data). The correlation between the nurses' knowledge score and sociodemographic factors In order to ensure that there were no inconsistencies, the researcher examined all of the data using the means, standard deviations, p-value, T test, one-way Anova, and independent t test. A p-value of less than 0.05 indicated that the error was likely to be significant.

Chapter four

Results:

The descriptive analytical method was used in this study. This technique aids in understanding the current situation and planning for the future. The current study aimed to assess nurses' nutrition knowledge, attitudes, and practices

The analysis process involves organizing and synthesizing data to answer research questions. After gathering data, the study researcher organized the information to clarify its significance and interpreted the results.

This chapter illustrates the results of a statistical analysis of the data, including descriptive analysis that presents the socio-demographic characteristics of the study sample and answers to the study questions. The researcher used simple statistics including frequencies, means, and percentages, independent sample t-test, and one-way ANOVA.

4.1 SOCIO-DEMOGRAPHIC INFORMATION

Data were examined based on the study's objectives. The researcher gathered the data for analysis using a self-administered questionnaire. The information includes the enrolled nurses' educational level they obtained, the hospital they work in, job title, nutritional training, hospital department they work in, years of experience as official nurses in the nursing profession, gender, and age.

A total of two hundred questionnaires were collected from the governmental (35%) and non-governmental hospitals (65%) in six hospital department categories; Pediatric and neonatal nursing, Neonatal intensive care unit nursing, Surgical and internal medicine nursing, Intensive Care Unit (ICU) and Coronary Care Unit (CCU), as follows (19.8%, 18.6%, 23.1%, 13.58%, 23.1%, 25.7%.

It is clear from Table 4.1 that the participants were almost equally distributed among females (n= 104) and males (n= 96). The results revealed the mean age of the participants was

28.51± 0.500 ranging from 21-49, most age groups were ≤30 years. Two groups of nurses participated in the study: Head Nurses (6.5 %), and Registered Nurses (93.5%).45% of respondents had a job experience of less than five years regarding educational level, and most participants had bachelor's degrees (83.5%; n=167). more than half (68%) of the participants received nutritional training at university,(13.5%) of them didn't receive nutritional training. The demographic characteristics of the participants in this study are presented in Table (4.1).

Table 4. 1 Demographic characteristics of participants (n=200) :

Category	Variable	Frequency	Percentage %
Hospital	Alia hospital	43	21.5%
	Ahli hospital	77	38.5%
	Yata hospital	18	9%
	Mohtaseb hospital	9	4.5%
	Helal hospital	20	10%
	Mezan hospital	33	16.5%
	Total	200	100%
Gender	Male	96	48%
	Female	104	52%
	Total	200	100%
Age	≤30 years	154	77%
	31-40 years	42	21%
	≥41years	4	2%
	Total	200	100%
Department	Pediatric and neonatal nursing	68	19.8%
	Neonatal intensive care unit nursing	37	18.6%
	Surgical and internal medicine	50	23.1%
	nursing	45	25.7%
	ICU-CCU	200	100%
	Total		
Job title	Head nurse	13	6.5%
	Registered Nurse	187	93.5%
	Total	200	100%
Job experience	Less than 5 years	91	45.5%
	5-10 years	80	40%

	More than 10 years	29	14.5%
	Total	200	100%
Nutrition training	University training	136	68.0%
	Other training	37	18.5%
	I did not receive any training	27	13.5%
	Total	200	100%
Education degree	Diploma	25	12.5%
	Bachelor's degree	167	83.5%
	Master's degree	8	4.0%
	Total	200	100%

4.2 General nutritional care given by nurses in hospitals.

The following table distributes the responses of the participating nurses towards statements about the nutritional care they provide to their patients. The table shows that less half of nurses sometimes (39%) and (31.5%) of them provide nutrition advice to their patients. (46.5%) of nurses were asked to advice less than 25% of patients in the past six months, Also, the tables shows the most important reasons that prevented nurses from providing nutritional advice to patients were lack of time to give nutrition/dietary advice (44.5%), lack of adequate information/knowledge in nutrition(36.5%), (6%) of nurses think that patients are not interested, (5.5%) of them think that nutrition advice is not important while less percentage (2.5%)of them stated that dietary advice is too complicated as a reason.

Approximately half of the participants (45.5%) seek nutrition/dietary advice from their nutritionist, followed by (31%) from the Internet, (16%) from their supervisor, Libraries (0.5%) and other sources (7%). The table below shows the frequency and percentage of the participating nurses toward nutritional care statements they provide to their patients.

Table 4.2: Frequency of numbers and percentages of participants' responses to nutritional care statements

N = 200 nurses	Frequency	Percent(%)
1. The participants provide nutrition advices to patients/clients		
Always	42	21 %
Most of the time	63	31.5 %
Sometime	78	39 %
Never	17	8.5 %
2. Patients seek nutrition advice		
Never	33	16.5 %
Less than 25% of patients	93	46.5 %
25-50% of patients	57	28.5 %
50-75% of patients	17	8.5 %
3. The reasons they think it prevents them from providing nutrition/dietary advice to patients?		
Lack of time to give nutrition/dietary advice	89	44.5 %
Lack of adequate information/knowledge in nutrition	73	36.5 %
Nutrition advice is not important	11	5.5 %
Patients are not interested	12	6 %
Dietary advice is too complicated	5	2.5 %
Others	10	5 %
4. When you have a problem in giving nutrition advice to your patients where do you go for help?		
To a dietician	91	45.5 %
To my superior/supervisor	32	16 %
To the library	1	.5 %
To the Internet	62	31 %
Others	14	7 %

4.3 knowledge of nurses regarding nutrition

Table 4.3 illustrates the frequency and percentage of correct answers to questions within the knowledge domain for the study participants. The average correct nutrition knowledge of nurses is considered insufficient (50.16), The mean knowledge score was 10.53 (SD± 2.55).

As shown that the item with the most correct answers was question No: 1; “what is the period of children’s exclusive breastfeeding” (n=176; 88%), and the item with the least correct answers was "Excess of specific nutrient may increase body loss of calcium" (n= 41; 20.5%). The total knowledge score level is 50.4% The score is well below the accepted adequate knowledge of 80%.

It is important to highlight that 75.5% (n=151) of participants were not aware that consuming fish and chicken is the most beneficial way to get the most benefit from dietary calcium. Additionally, 25% (n=150) of the participants did not know that an adult with a body mass index (BMI) between 25.0-29.9 kg/m² is considered overweight based on their nutritional status.

Table 4.3: Frequency of numbers and percentages of participants' nutrition knowledge

Knowledge Number	True Answer	Frequency	Percent
1. What is the period of children's exclusive breastfeeding?	6 months	176	88%
2. An important mineral for menopausal women.	Calcium	83	41.5%
3. Who are at risk of malnutrition from the community groups?	Under five children and Pregnant women	125	62.5%
4. What is the adequate intake of calcium for adults aged 51-70 years?	1200 mg/day	92	46%
5. What is the protective nutrient against hypertension?	Potassium	114	57%
6. Which is the most concentrated source of vitamin B12?	Meat	144	72%
7. Which of the following is not an antioxidant nutrient ?	Zinc	73	36.5%
8. Excess of specific nutrient may increase body loss of calcium.	Protein	41	20.5%
9. The percentage of total energy that should come from fats per day.	25%	90	45%

10. What are the types of food might have a preventive effect on various types of cancer?	Fruit & vegetable	174	87%
11. How much kilocalories can be obtained from one gram of fat?	9 kilocalories	73	36.5
12. A common nutrient deficiency in alcoholic persons.	Vitamin B1	76	38%
13. Nutrient strongly associated with the prevention of neural tube defects.	Folic acid	143	71.5%
14. Nutrition status of an adult whose body mass index is between 25.0-29.9 kg/m ² .	Overweight	50	25%
15. Long term treatment of tuberculosis by isoniazid may cause deficiency of:	Niacin & Pyridoxine	79	39.5%
16. Eating large amount of raw egg white may develop	Biotin deficiency	85	42.5%
17. Vitamin C is not involved in :	muscle contraction	78	39%
18. To have maximum benefit of dietary calcium, an individual should eat:	Fish & Chicken	49	24.5%
19. In the average diet, which minerals are at great risk of deficiency?	Calcium, iodine & iron	119	59.5%

20. An ideal weight gain for the normal-weight pregnant woman.	11–14 kg	138	69%
21. In large doses, which vitamins may accumulate in the body to dangerous levels?	Vitamin A & vitamin D	105	52.5%
Total			50.16

4.3.1 Classification of nutritional knowledge:

Knowledge score was calculated by giving one point for the correct answer and 0 for the incorrect answers, then the correct answers were summed and the possible scores for the respondents were 0-21.

Table 4.3.1 indicates that 23% of the nurses have poor nutritional knowledge, more than half (66%) of nurses have moderate nutritional knowledge, and 11% of nurses enjoy excellent nutritional knowledge.

a-knowledge score is less than 9 (25th Percentile)

b-Knowledge score is 9 - <13 (75th Percentile)

c-Knowledge score is ≥ 13

Table 4.3.1: Classification of nutritional knowledge:

Knowledge level classification	Frequency	Percent
Poor ^a	46	23%
Moderate ^b	132	66%
Excellent ^c	22	11%

4.4 Level of nurse's attitude toward nutrition care

The following table describes the frequencies and percentages of nurses' responses to statements related to their Attitudes toward the significance of nutrition in the medical field and the treatment and prevention of different diseases. The attitude section involved 18 questions. From questions 1-10, the answers (agree) and (strongly agree) were considered answers that express a positive attitude towards the sentence, from questions 11-18, the answers (disagree) and (strongly disagree) were considered positive attitudes for statements. The mean attitude score was 2.70 which means a neutral attitude.

According to Table (4.4), the majority of nurses (92%) had a positive attitude toward the nutritional statement "Diet has an important role in the prevention and treatment of diseases". The lowest positive attitude (27%) was in the statement "The pleasures of eating are more important than the potential health benefits of dieting", 25% of nurses disagreed, and 2% strongly disagreed with this statement.

Table 4.4: Attitude of nurses toward nutrition care (N=200).

No.	N=200	Positive	Neutral	Negative	Mean	SD
		n (%)	n (%)	n (%)		
1	Diet has an important role in the prevention and treatment of diseases	184 (92 %)	16 (8 %)	–	3.330	0.618
2	Graduate schools should place greater emphasis on nutritional education	183 (91.5 %)	16 (8 %)	1 (,5 %)	3.205	0.595
3	On job training should devote time to nutrition-related issues	182 (91 %)	15 (7.5 %)	3 (1.5 %)	3.220	0.673
4	Understanding food composition and preparation can help provide reliable nutritional advice	158 (79 %)	17 (8.5 %)	25 (12.5 %)	2.880	0.888
5	Medication can be decreased or removed if a prescribed diet is adopted by patients	177 (88.5 %)	22 (11 %)	1 (,5 %)	3.195	0.6627
6	Nurses should spend more time exploring dietary/eating habits during patient care	151 (75.5 %)	38 (19 %)	11 (5.5 %)	2.845	0.770
7	Most nurses are very knowledgeable about nutrition	97 (48.5 %)	54 (27 %)	49 (24.5 %)	2.270	0.949
8	physicians should involve themselves in nutrition counseling	176 (88 %)	16 (8 %)	8 (4 %)	3.290	2.230
9	Nurses should involve themselves in nutrition/dietary counseling	171 (85.5 %)	18 (9 %)	11 (5.5 %)	2.975	0.697
10	Obesity is a health problem in Palestine	158 (79 %)	28 (14%)	14 (7 %)	3.075	0.879
11	The pleasures of eating are more important than the potential health benefits of dieting	54 (27 %)	33 (16.5 %)	113 (56.5 %)	1.550	1.106
12	Diet has no effect on prolonging life	80 (40 %)	44 (22 %)	76 (38 %)	2.115	1.228
13	Nutrition/dietary counseling should be given to only those who are obese	124 (62 %)	24 (12 %)	52 (26 %)	2.560	1.201
14	Dietary counseling is a waste of time because people don't change their eating habits anyway	108 (54 %)	28 (14 %)	64 (32 %)	2.380	1.175

15	Nutrition advice is not the responsibility of the nurses.	90 (45 %)	33 (16.5 %)	7 (38.5 %)	2.090	1.276
16	Nutrition advice is not important to people with infectious diseases	116 (58 %)	28 (14 %)	56 (28 %)	2.465	1.344
17	Adolescents are not at risk of malnutrition	136 (68 %)	25 (12.5 %)	39 (19.5 %)	2.780	1.220
18	There is no need of early diagnosis and treatment of obesity	138 (69 %)	21 (10.5 %)	41 (20.5 %)	2.695	1.307

4.4 nurse's nutritional care practice

The findings showed a good average of practice feedback of (3.20±0.58). 89.7% of participants agreed with the item “The protocols for the purpose of nutrition screening and assessment are available in my hospital” with high mean of 3.41± 0. 809. Where are 89% of nurses agree with this item. The lowest mean (2.98±1.02) was for the practice item “Patients' nutrition status will be assessed before discharging them from the hospital” where 37.3% strongly agree and 34.5% with this item. 87% of the nurses reported screening a patient’s nutrition status during admission. 80.5 % of nurses assessed patient nutrition status during the hospital stay as a regular procedure in their department. (82.5%) of the nurses will document the patient’s nutrition care plan in their department.

Table 4.5: Distribution of nurses' responses to nutritional care Practices statements.

Practice	Strongly agree	agree	neutral	disagree	Strongly disagree	Mean	SD
The protocols for the purpose of nutrition screening and assessment are available in my hospital	113 (56.5%)	66 (33%)	14 (7%)	5 (2.5%)	2 (1%)	3.41	.809
Screening a patient's nutrition status at admission is a regular procedure in my hospital	95 (47.5%)	79 (39.5%)	20 (10%)	6 (3%)	-	3.31	.773
Assessment of patient nutrition status during the hospital stay is a regular procedure in my hospital	83 (41.5%)	81 (40.5%)	31 (15.5%)	3 (1.5%)	2 (1%)	3.20	.826
The nutrition care plan (individualized dietary intake and calculated calorie needed for malnourished patient) is documented in the patient's record in my hospital	85 (42.5%)	80 (40%)	30 (15%)	5 (2.5%)	-	3.22	.792
Patients' nutrition status will be assessed before discharging them from the hospital	75 (37.5%)	69 (34.5%)	37 (18.5%)	15 (7.5%)	4 (2%)	2.98	1.02
A patient unable to tolerate orally or enteral feeding will be referred to a parenteral nutrition in my hospital	75 (37.5%)	72 (36%)	48 (24%)	5 (2.5%)	-	3.08	.843
Healthcare providers involved in nutrition screening and assessment will undergo training on nutrition support in my hospital	89 (44.5%)	68 (34%)	37 (18.5%)	5 (2.5%)	1 (0.5%)	3.19	.860

4.6 The relationship between the sociodemographic variables and the KAP dimensions

The relationship between knowledge, attitudes, practice, and total KAP scores and socio-demographic characteristics was tested by using t-test and one-way analysis of variance (ANOVA).

The results in Table (5.6) showed that there was a significant association between knowledge and job title factor. The result also revealed that the head nurse had higher scores of nutritional knowledge frequency than the staff nurse (4.29 ± 0.61 , $p\text{-value} = 0.001$). On the other hand, the rest of the factors, including the gender, type of hospital, department, experience year, and nutrition training were not significantly related to significant differences in participants' knowledge of nutritional care.

For the Attitude dimension, there was a significance relationship between attitude and education level. The high positive attitude was for nurses who had a master degree (51.00 ± 8.10 , $p\text{-value} = 0.015$).

Also, there was a significant relationship between practice and experience year. Better practice among those with an experience of 5-10 years than others (3.326 ± 0.452 , $p\text{-value} = 0.050$). The results show that there is no significant difference between the nutrition practice of nurses attributed to gender, age, department, nutrition training, and job title variables.

Table 4.6 The relationship between nurses' demographic factors and nutritional care knowledge attitude and practice.

Knowledge				
Variable	N	Mean \pm SD	F/t	P.value
Gender				
Female	104	10.65 \pm 2.50	0.685	0.408
Male	96	10.40 \pm 2.61		
Hospital				
Princess Alia hospital	43	10.58 \pm 2.32	1.631	0.154
Ahli hospital	77	10.12 \pm 2.56		
Yata hospital	18	11.33 \pm 1.97		

Mohtaseb hospital	9	10.11±1.45		
Hilal hospital	20	10.10±2.91		
Mezan hospital	33	11.36±2.91		
Department				
Pediatric and neonatal unit	68	10.57±2.27	0.212	0.888
Neonatal intensive care unit	37	10.75±2.51		
Surgical and intimal medicine unit	50	10.52±2.29		
ICU-CCU	45	10.31±3.23		
Age				
≤30	154	10.35±2.28	2.56	0.080
31-40	42	11.28±3.21		
≥41	4	9.50±3.69		
Job title				
Head nurse	13	12.69±4.00	3.226	0.007*
Staff nurse	187	10.38±2.36		
Experience year				
Less than 5 years	91	10.24±2.24	2.354	0.098
5-10 years	80	10.55±2.05		
More than 10 years	29	11.41±3.82		
Training				
Nutrition training in college	136	10.52±2.53	0.135	0.874
Other training	37	10.40±2.27		
I did not receive any training	27	10.74±3.02		
Education				
Diploma	25	10.76±2.71	1.820	0.165
Bachelor's degree	167	10.42±2.47		
Master's degree	8	12.12±3.31		
Attitude				
Variable	N	Mean ±SD	F/T	P-value
Gender				
Female	104	49.32±6.37	0.864	0,094
Male	96	48.47±7.49		
Hospital				
Government hospitals		49.74±7.53	1.234	0.213
Non-Governmental hospitals		48.47±6.56		
Department				

Pediatric and neonatal unit	68	49.50±7.25	1.89	0.133
Neonatal intensive care unit	37	48.54±6.34		
Surgical and intimal medicine unit	50	50.14±5.88		
ICU-CCU	45	47.00±7.70		
Age				
≤30	154	49.30±6.74	1.924	0.149
31-40	42	47.21±7.53		
≥41	4	52.00±5.29		
Job title				
Head nurse	13	48.92±7.25	0.002	0.570
staff nurse	187	48.91±6.92		
Experience year				
Less than 5 years	91	48.30±6.06	0.715	0.490
5-10 years	80	49.57±7.63		
More than 10 years	29	49.03±7.48		
Training				
Nutrition training in college	136	46.16±6.32	0.550	0.578
Other training	37	48.97±7.31		
I did not receive any training	27	47.62±9.14		
Education				
Diploma	25	42.87±6.64	4.312	0.015*
Bachelor's degree	167	48.89±6.61		
Master's degree	8	51.00±8.10		
Practice				
Gender				
Variable	N	Mean ±SD	F/T	P-value
Female	104	3.195±0.565	0.061	0.805
Male	96	3.209±0.616		
Hospital				
Government hospitals	70	3.198±0.603	0.011	0.989
Non-Governmental hospitals	130	3.204±0.583		
Department				
Pediatric and neonatal unit	68	3.102±0.656	1.023	0.383
Neonatal intensive care unit	37	3.278±0.505		
Surgical and intimal medicine unit	50	3.257±0.446		

ICU-CCU	45	2.228±0.676		
Age				
≤30	154	3.205±0.586	0.011	0.989
31-40	42	3.190±0.621		
≥41	4	3.214±0.444		
Job title				
Head nurse	13	3.120±0.860	2.724	0.100
Registered nurse	187	3.207±0.568		
Experience year				
Less than 5 years	91	3.120±0.681	3.049	0.050*
5-10 years	80	3.326±0.452		
More than 10 years	29	3.113±0.565		
Training				
Nutrition training in college	136	3.187±0.632	2.584	0.078
Other training	37	3.096±0.516		
I did not receive any training	27	3.423±0.378		
Education				
Diploma	25	3.325±0.409	1.523	0.210
Bachelor's degree	167	3.203±0.586		
Master's degree	8	2.857±1.052		

* Significant at the 0.05 level.

Chapter Five:

Discussion

5.1 Introduction:

This cross-sectional descriptive study aimed to assess the level of knowledge, attitude, and practices of nurses' nutrition care in selected Hebron hospitals. The sample size of this study was 200, and it was conducted in six hospitals, the study included a representative sample. This chapter outlines, discusses, and compares the findings of this study with other studies that share similar objectives. It is believed by the researchers of this study that it is the first of its own in Hebron regarding nutrition care. Therefore, the study's findings will help close the knowledge gap regarding Palestinian nurses' lack of knowledge about nutrition care. They can also serve as a baseline for further research and be used to nutrition care practices, administration, and education.

5.2 Main finding of the study

The demographic data showed that the proportion of respondents by workplace was similar to the proportions of hospitals in the population, indicating more generalizability. This also applied to the age distribution, which included a very large percentage of individuals under the age of 30, who make up the majority of nurses in the targeted institutions. also it was almost equally distributed among males (48%) females (52%), It was not anticipated to exist in the nursing profession. Moreover, the distribution of the nurses according to the current job title reflected the actual percentages in the targeted hospitals, where nurses (93.5%) had around threefold the percentage of Head nurses (6.5%). The demographic factors in the current study included a variable related to the nutrition training that the participant had received, as this factor

can affect several elements of nutritional and overall care, largely due to variances in received training. (Ramuada et al.,2022).

The demographic factors in the current study included a variable related to the nutrition training that the participant had received, which gives it a kind of novelty compared to the rest of the reviewed studies, as different aspects of nutritional and overall care can be affected by this factor, mostly related to differences in received curriculums (Baker, Cary, & da Conceicao Bento, 2021; Kajander-Unkuri et al., 2021).

5.3 knowledge of nurses regarding nutrition care

The current study results showed that the total mean for participants' knowledge was 10.53, and the average correct nutrition knowledge is considered insufficient (50.1%), The score is compatible with the study results by Hadera et al., (2022), where an inadequate level of knowledge of enteral nutrition among nursing personnel was determined, with 67.% of score level. Also, the Jordanian participated nurses in other studies showed that the mean rate of correct answer for therapeutic nutritional knowledge of Jordanian nurses was 58.8% (Al-Shwaiyat et al., 2013). A study that used the same questionnaire found the total nutrition knowledge score was 7.44 which is considered insufficient (NASER et al.,2021). The fact that many health training programs do not contain nutrition curriculum and placements leads to somewhat inconsistent results (Ramuada et al., 2023)

The study findings are consistent with a prior Palestinian study by Shakshir and Khayat (2023) which found that nurses have poor knowledge and demonstrated that lack of nutritional knowledge, attitude, and behaviors among nurses is a national concern.

Overall, this study shows that 23% of nurses have poor nutritional knowledge, more than half (66%) of nurses have moderate nutritional knowledge, and 11% of nurses enjoy excellent nutritional knowledge. In Qatar, similar results were observed, with 21% of physicians having poor nutritional knowledge, 60% having moderate nutritional knowledge, and 19% having good nutritional knowledge. Also, a study by Buxton & Davies, (2013) revealed that only 3.6% of the sample students had good nutritional knowledge.

Despite the current study's overall insufficient knowledge score, the vast majority (88%) answered correctly that the Period of children's exclusive breastfeeding is six months. This percentage is higher than what was found in a previous study by Naser et al (2022) when participants were asked about the same issue (77%) answered correctly.

5.4 Attitude of nurses toward nutrition care

Compared to previous studies conducted in Gaza by Naser et al. (2021) where the percentage of favorable attitudes towards nutritional claims was 22.9%, the determined percentage of nurses with a suitable number of positive attitudes was significantly higher. the findings can support the recommendation for ongoing training in hospital settings and aid in implementing related policies. It also highlights the need to improve attitudes toward nutrition, emphasizing that this enhancement is important not only in Palestine but also globally.

5.4 nurse's nutritional care practice

The level of nutritional care practice among nurses varies depending on experience, education, resources, practice environment, and personal views. Assessing and addressing these characteristics can assist in improving nutritional care delivery and patient outcomes.

There are many reasons that lead to poor nutritional practices, which are lack of training and education, lack of resources, lack of time for nurses, high proportion of patients relative to the number of nurses, limited awareness of the importance of nutrition and personal determinants, lack of confidence, and insufficient sources and practices for screening.

The fundamental organizational forms for supplying nutrition are nutritional processes, which include screening for persons at nutritional risk and conducting a thorough nutritional evaluation (Cederholm et al., 2017).In this survey, 89% of nurses stated that their hospital had

protocols in place for nutrition screening and assessment. However, only 39.9% of Malaysian healthcare professionals were found to have nutrition screening and assessment methods in place in their departments, according to a study done by Karim et al. (2014).

Early screening allows healthcare providers to design suitable nutrition plans suited to each patient's specific needs, which can lead to better overall health outcomes and recovery. The mean practice outcomes of the current study show that nurses have good practices toward patient's nutrition status screening at admission as a regular and organized procedure in their hospital. This result is similar to the result of study by Theilla RN., 2016)

5.6 Relationship between study variables and nurses' nutritional knowledge, attitudes, and Practices.

The agreement appears between the findings of the current study and the study by Buxton & Davies (2013), both studies results revealed that there was no statistically significant difference between nurses' knowledge with respect to age group, gender, work experience, and educational background. Another study by Shakhshir & Alkaiyat (2023) in North Palestine found no significant association between gender, type of hospital, job title, and years of experience with knowledge of nutritional care.

No significant relationship was found between the department in which the participant works and the level of nutritional knowledge for nurses. Many studies examined the effect of a department on the level of nutritional knowledge for nurses and did not find a significant relationship. For example, a study conducted among nursing students in Greece (Yfanti, 2011).

In terms of the gender's relationship with the level of knowledge about nutritional care, the study of Hammouh et al., (2023) found that female participants significantly higher

knowledge levels than males, in this study there is no relationship between gender and knowledge level. No significant relationship with nurses' level of nutritional knowledge and year of experience. Many studies found the same result. For example, a study conducted in Turkey included 302 nurses from different hospitals (Yalcin et al., 2013).

For the Practice dimension, Significant differences were found between participants' experience year and whether practice. This result goes with the result of another previous cross-sectional descriptive study was performed at Tabriz University of medical science by Mahmood et al. (2021), found that the nursing practice had a significant relationship with work experience.

5.7 Recommendations:

After discussing the results of this study, based on the findings and discussion of the current study, the researcher recommends to:

1. Hospitals should improve staff awareness of nutritional care programs through training, peer education, and sharing experiences and brochures
2. . Establishing nutritional practice guidelines can improve standards and clinical practice by emphasizing theoretical principles, skill development, and critical evaluation abilities.
3. Continuous assessment and updating of nutritional knowledge among nurses.
4. Evaluation for the current nutrition training program contents for nurses.
5. Employing specialized employees trained in the field of nutrition (nutritionist), which leads to improving employee performance related to nutritional care.
6. Conduct more detailed studies into factors that affect nurses' nutritional knowledge and practice, and more specific nutritional issues will be beneficial. as well as focusing on the investigation of the barriers to appropriate nutritional care.

7. Conduct More research about nutrition to include a sample from other hospitals in West Bank.
8. Nursing educators should design appropriate type and method of educational courses to get better nutritional knowledge and practice levels.

5.8 limitations:

The methodology was implemented rigorously and accurately. This study was however limited to the Hebron area, furthermore some nurses refused to participate. It is also possible that those who responded may have had a better level of nutritional knowledge than those who did not, thus resulting in an overestimation of the level of nutritional knowledge.

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Questionnaire:

Socio-demographic and other Information		
1.	Gender	1) Male 2) Female
2.	Age	-----
3.	Department	1) Neonatal and Pediatric Nurses 2) NICU Nurse. 3) Medical and surgical nurse: 4) CCU and ICU
4.	current job title	1) Head nurse 2) Supervisor nurse 3) Registered Nurse (B.Sc. N) 4) Staff Nurse 5) Midwifery (Staff Midwife)
5.	length of experience	1) Less than 5 years 2) 5-10 3) More than 10
6.	nutrition training.	1. College training 2. Other training 3. I did not receive training
7.	Level of education	1. Diploma degree 2. Bachelor's degree 3. Master degree 4. Others
Knowledge Section		
1.	Children should breast feed exclusively for :	1. 2 months 2. 4 months 3. 6 months*
2.	What mineral is important for menopausal women ?	1. Iron 2. Zinc 3. Calcium*
3.	Which groups are at risk of malnutrition in the community?	1. Under five children and pregnant women 2. Adolescents, under five children and pregnant women* 3. Old people, adolescents and adult men
4.	The adequate intake level of calcium for adult	1. 500 milligrams/day

	aged 51-70 years is:	<ol style="list-style-type: none"> 2. 1200 milligrams/day* 3. 3000 milligrams/day
5.	Which nutrient is protective against hypertension?	<ol style="list-style-type: none"> 1. Potassium* 2. Chlorine 3. Iron
6.	The most concentrated source of vitamin B 12 is:	<ol style="list-style-type: none"> 1. Fruit 2. Whole grain 3. cerealsMeat*
7.	Which of the following is not an antioxidant nutrient?	<ol style="list-style-type: none"> 1. Vitamin E 2. Beta-carotene 3. Zinc*
8.	Excess of which nutrient may increase body calcium loss:	<ol style="list-style-type: none"> 1. Protein* 2. Saturated fat 3. Potassium
9.	What percentage of the daily total energy should come from fats?	<ol style="list-style-type: none"> 1. 20 2. 25%* 3. 35 %
10.	Types of food believed to have a preventive effect on various types of cancer are:	<ol style="list-style-type: none"> 1. Fruit and vegetable* 2. Milk 3. Meat
11.	The number of kilocalories in one gram of fat is:	<ol style="list-style-type: none"> 1. 4 2. 7 3. 9*
12.	12. A common nutrient deficiency in alcoholic is:	<ol style="list-style-type: none"> 1. Vitamin B1* 2. Iron 3. Protein
13.	13. Nutrient strongly associated with the prevention of neural tube defects is:	<ol style="list-style-type: none"> 1. Folate* 2. Zinc 3. Beta-carotene
14.	4. Nutrition status of an adult whose Body Mass Index is between 25.0-29.9 kg/m Is rated?	<ol style="list-style-type: none"> 1. Underweight 2. Normalweight 3. Overweight*

15.	Administration of drugs such as isoniazid used in the treatment of tuberculosis for a long time can cause deficiency of which nutrient?	<ol style="list-style-type: none"> 1. Vitamin B complex 2. Calcium and iron 3. Niacin and vitamin B6*
16.	A person eating diet containing large amount of raw egg white for a long time is likely to develop:	<ol style="list-style-type: none"> 1. Niacin deficiency 2. Biotin deficiency* 3. Vitamin A deficiency
17.	Vitamin C is not involved in:	<ol style="list-style-type: none"> 1. Maintaining healthy gum 2. Muscle contraction* 3. Strengthening blood vessel walls
18.	In order to obtain adequate calcium from diet you could eat:	<ol style="list-style-type: none"> 1. Oranges and bananas 2. Chicken and fish 3. milk and yogurt*
19.	The minerals most often at risk of being deficient in the average diet are:	<ol style="list-style-type: none"> 1. Calcium, iodine and iron* 2. Iron, sodium, calcium 3. Potassium, calcium
20.	An ideal weight gain for the normal pregnant woman is:	<ol style="list-style-type: none"> 1. 11–14 kg* 2. 14–16 kg 3. 18–23 kg
21.	Some vitamins may accumulate in the body to dangerous levels if large doses of vitamin supplements are frequently taken. Examples of these would be:	<ol style="list-style-type: none"> 1. Vitamins A and C 2. Vitamins A and D* . 3. All B-vitamins

Attitude section

	Statement	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1.	Diet has an important role in prevention and treatment of disease					
2.	Nursing schools should place greater emphasis on nutritional education.					
3.	On job training should devote time to nutrition-related issues.					
4.	It is important to have an understanding of Food composition and preparation to provide					

	reliable nutritional advice.					
5.	In many cases, medication could be reduced or eliminated if patients followed a recommended diet.					
6.	Nurses should spend more time exploring dietary/eating habits during patient care.					
7.	Most nurses are very knowledgeable about nutrition					
8.	Doctors/Clinicians should involve themselves in nutrition counselling.					
9.	Nurses should involve themselves in nutrition/dietary counselling					
10.	Obesity is a health problem in Palestine					
11.	The pleasures of eating are more important than the potential health benefits of dieting.					
12.	Diet has no effect on prolonging life.					
13.	Nutrition/dietary counseling should be given to only those who are obese					
14.	Dietary counseling is a waste of time because people don't change their eating habits anyway					
15.	Nutrition advice is not the responsibility of the nurse.					
16.	Nutrition advice is not important to people with HIV/AIDS					
17.	Adolescents are not at risk of malnutrition					
18.	There is no need of early diagnosis and treatment of obesity					
Practice section						
1.	The protocols for the purpose of nutrition screening and assessment are available in my hospital	Strongly agree Agree Neutral Disagree Strongly disagree				
2.	Screening a patient's nutrition status at admission is a regular procedure in my hospital	Strongly agree Agree Neutral Disagree Strongly disagree				
3.	Assessment of patient nutrition status during the hospital stay is a regular procedure in my hospital	Strongly agree Agree Neutral Disagree				

		Strongly disagree
4.	The nutrition care plan (individualized dietary intake and calculated calorie needed for malnourished patient) is documented in the patient's record in my hospital	Strongly agree Agree Neutral Disagree Strongly disagree
5.	Patients' nutrition status will be assessed before discharging them from the hospital	Strongly agree Agree Neutral Disagree Strongly disagree
6.	A patient unable to tolerate orally or enteral feeding will be referred to a parenteral nutrition in my hospital	Strongly agree Agree Neutral Disagree Strongly disagree
7.	Healthcare providers involved in nutrition screening and assessment will undergo training on nutrition support in my hospital	Strongly agree Agree Neutral Disagree Strongly disagree

Annex2: Questionnaire – Arabic Version

الرجاء العلم ان هذا البحث هو بحث أكاديمي بحث ولذلك سيتم احترام خصوصيتك بشكل كامل.

قسم البيانات الاجتماعية والديموغرافية

الجنس :

1. انثى

2. ذكر

المستشفى الذي تعمل فيه:

1. مستشفى عالية الحكومي

2. مستشفى الاهلى

3. مستشفى يطا الحكومي

4. مستشفى محمد علي المحتسب

5. مستشفى الهلال

6. مستشفى الميزان

العمر:

1. اقل من 30

2. 31-40 سنة

3. اكثر من 41

القسم الذي تعمل فيه:

1. تمريض الأطفال وحديثي الولادة

2. تمريض وحدة العناية المركزة لحديثي الولادة

3. تمريض الجراحة والباطني

4. وحدة العناية القلبية او العناية المركزة ICU-CCU

المسمى الوظيفي:

1. رئيس التمريض

2. ممرض/ة مسجل/ة (طاقم التمريض)

سنوات الخبرة:

1. أقل من 5 سنوات
2. 5-10 سنوات
3. أكثر من 10 سنوات

هل تلقيت أي تدريب تغذوي؟

1. تدريب اثناء الدراسة في الجامعة
2. تدريبات أخرى
3. لم اتلقى أي تدريب تغذوي

درجة التعليم:

1. درجة الدبلوم
2. درجة البكالوريوس
3. درجة الماجستير
4. غيرها

القسم الثاني: قسم الممارسات التغذوية العامة:

1. هل تقدم النصائح الغذائية لمرضاك؟
 - دائماً
 - معظم الوقت
 - أحيانا
 - أبداً
2. كم مرة طلب منك نصيحة غذائية من قبل مرضاك خلال الأشهر الستة السابقة؟
 - ابدا
 - أقل من 25% من المرضى
 - (25-50%) من المرضى
 - (50-75%) من المرضى
3. أي مما يلي تعتقد أنه يمنعك من تقديم النصائح الغذائية للمرضى؟
 - 1- ضيق الوقت لإعطاء نصيحة تغذوية
 - 2- نقص المعلومات الكافية او المعرفة في التغذية

- 3- نصائح التغذية ليست مهمة
 - 4- المرضى غير مهتمين
 - 5- النصائح الغذائية معقدة كثيرا
 - 6- اسباب أخرى
4. عندما تواجه مشكلة في تقديم النصائح الغذائية / التغذية لمرضاك، أين تذهب للحصول على المساعدة؟

- لأخصائي التغذية
- إلى رئيسي / مشرفي
- إلى المكتبة
- إلى شبكة الإنترنت
- غيرها

القسم الثالث: قسم الاسئلة المتعلقة بالمعرفة

1. ما هي يعتمد فيها الطفل فقط على الرضاعة الطبيعية:

- شهران
- 4 شهور
- 6 شهور

2. ما هي اهم المعادن للنساء في مرحلة سن الامان؟

- الحديد
- الزنك
- الكالسيوم

3. الفئات الأكثر عرضة لخطر سوء التغذية في المجتمع هي:

- الاطفال دون سن الخامسة والنساء الحوامل
- المراهقون, والاطفال دون سن الخامسة ,والنساء الحوامل
- كبار السن والمراهقون والرجال البالغين

4. ما هو المعدل المناسب من تناول الكالسيوم للبالغين في عمر 50-70 ؟

- 500 ملغم/يوم
- 1200 ملغم/يوم
- 3000 ملغم/يوم

5. ما هو العنصر الغذائي الذي يحمي من ارتفاع ضغط الدم؟

- البوتاسيوم
- الكلور
- الحديد

6. المصدر الأكثر تركيزًا لفيتامين ب 12 هو:

- الفاكهة
- الحبوب الكاملة
- الحبوب واللحوم

7. أي مما يلي ليس من العناصر الغذائية المضادة للأكسدة؟

- فيتامين E))
- بيتا كاروتين
- الزنك

8. أي العناصر الاتية يؤدي تناولها بأفراط الى فقدان الكالسيوم في الجسم:

- البروتين
- الدهون المشبعة
- البوتاسيوم

9. ما هي النسبة المئوية من إجمالي الطاقة اليومية التي ينبغي تأتي من مصادر الدهون؟

- 20%
- 25%
- 35%

10. ما هي أنواع الأطعمة التي يُعتقد أن لها تأثيرًا وقائيًا على أنواع مختلفة من السرطان المختلفة؟

- الخضار والفواكه
- الحليب
- اللحم

11. ما هو عدد السعرات الحرارية في جرام واحد من الدهون؟

- 4
- 7
- 9

12. ما هو العنصر الغذائي الأكثر نقصًا عند الأشخاص مدمني الكحول؟

- فيتامين ب 12
- الحديد
- البروتين

13. أي العناصر الغذائية التي تساعد على الوقاية من التشوهات العصبية؟

- حمض الفوليك
- الزنك
- بيتا كاروتين

14. تعتبر الحالة التغذوية لشخص بالغ يتراوح مؤشر كتلة جسمه 25-29.9 كجم/م

- نقص في الوزن
- الوزن الطبيعي
- زيادة في الوزن

15. إدخال الأدوية مثل إيزونيازيد (isoniazid) المستخدمة في علاج مرض السل لفترة طويلة يمكن أن

تسبب نقص في أي مغذيات؟

- فيتامين ب المركب
- الكالسيوم والحديد
- النياسين وفيتامين ب 6

16. من المحتمل أن يصاب الشخص الذي يتناول نظامًا غذائيًا يحتوي على كمية كبيرة من بياض البيض الغير

مطهي لفترة طويلة ب:

- نقص النياسين

• نقص البيوتين

• نقص فيتامين

17. فيتامين سي لا يساهم في:

• الحفاظ على لثة صحية

• انقباض العضلات

• تقوية جدران الأوعية الدموية

18. ما هي الاغذية التي يمكن من خلالها الحصول على الكالسيوم الكافي للجسم ؟

• البرتقال والموز

• السمك والدجاج

• الحليب واللبن

19. ما هي المعادن الأكثر عرضة لخطر النقص في النظام الغذائي العادي؟

• الكالسيوم, اليود والحديد

• الحديد, الصوديوم والكالسيوم

• البوتاسيوم والكالسيوم

20. ما هي زيادة الوزن المثالية للمرأة الحامل اثناء فترة الحمل؟

• 1. 11-14 kg

• 2. 14-16 kg

• 3. 18-23 kg

21. ما هي الفيتامينات التي تتراكم في الجسم إلى مستويات خطيرة إذا تم تناول جرعات كبيرة من مكملات

الفيتامينات بشكل متكرر؟

• فيتامين أ + فيتامين س

• فيتامين أ + فيتامين د

• كل فيتامينات ب (B Vitamins)

القسم الرابع: قسم الموقف المتعلق بالرعاية التغذوية

1. النظام الغذائي له دور مهم في الوقاية وعلاج المرض

• موافق بشدة

• موافق

• محايد

- معارض
 - معارض بشدة
2. يجب أن تركز كليات التمريض بشكل أكبر على التثقيف الغذائي.

- موافق بشدة
- موافق
- محايد
- معارض
- معارض بشدة

3. يجب أن يخصص اثناء التدريب العملي وقتاً للقضايا المتعلقة بالتغذية.

- موافق بشدة
- موافق
- محايد
- معارض
- معارض بشدة

4. من المهم أن يكون لديك فهم بمكونات الطعام وتحضيره لتقديم مشورة غذائية سليمة.

- موافق بشدة
- موافق
- محايد
- معارض
- معارض بشدة

5. اتباع المرضى نظام غذائي موصى به يمكن ان يقلل او يحد من استخدام الادوية في كثير من الحالات

- موافق بشدة
- موافق
- محايد
- معارض
- معارض بشدة

6. اثناء رعاية المرضى يجب على الممرضين قضاء المزيد من الوقت في استكشاف العادات الغذائية؟

- موافق بشدة
- موافق
- محايد
- معارض
- معارض بشدة

7. معظم الممرضين على دراية (معرفة) جيدة بالتغذية السليمة

- موافق بشدة
- موافق
- محايد
- معارض
- معارض بشدة

8. يجب على الاطباء المشاركة في استشارات البرنامج الغذائي للمريض

- موافق بشدة
- موافق
- محايد
- معارض
- معارض بشدة

9. يجب على الممرضين المشاركة في استشارات البرنامج الغذائي للمريض

- موافق بشدة
- موافق
- محايد
- معارض
- معارض بشدة

10. تعتبر السمنة مشكلة صحية في فلسطين

- موافق بشدة
- موافق

- محايد
- معارض
- معارض بشدة

11. يعتبر مذاق الطعام اهم من الفوائد الصحية للطعام

- موافق بشدة
- موافق
- محايد
- معارض
- معارض بشدة

12. نظام الغذائي ليس له تأثير على إطالة الحياة

- موافق بشدة
- موافق
- محايد
- معارض
- معارض بشدة

13. الاستشارة الغذائية يجب أن تقدم فقط لأولئك الذين يعانون من السمنة المفرطة

- موافق بشدة
- موافق
- محايد
- معارض
- معارض بشدة

14. النصائح الغذائية هي مضيعة للوقت لان الاشخاص لا يغيرون عاداتهم الغذائية مهما كان

- موافق بشدة
- موافق
- محايد
- معارض
- معارض بشدة

15. النصائح التغذوية ليست من مسؤولية الممرضين

- موافق بشدة
- موافق
- محايد
- معارض
- معارض بشدة

16. نصائح التغذية ليست مهمة للأشخاص الذين يعانون فيروس نقص المناعة البشرية / الإيدز

- موافق بشدة
- موافق
- محايد
- معارض
- معارض بشدة

17. المراهقون ليسوا عرضة لخطر سوء التغذية

- موافق بشدة
- موافق
- محايد
- معارض
- معارض بشدة

18. لا داعي للتشخيص المبكر وعلاج السمنة

- موافق بشدة
- موافق
- محايد
- معارض
- معارض بشدة

القسم الثالث: قسم الأسئلة المتعلقة بالممارسات التغذوية:

1. البروتوكولات الخاصة بفحص وتقييم التغذية متاحة في المستشفى الذي أعمل فيه

- موافق بشدة
- موافق
- محايد
- معارض

- معارض بشدة
2. يعد فحص الحالة التغذوية للمريض عند دخوله إجراءً منتظمًا في المستشفى الذي أعمل فيه:
- موافق بشدة
 - موافق
 - محايد
 - معارض
 - معارض بشدة
3. يعد تقييم الحالة الغذائية للمريض أثناء إقامته في المستشفى إجراءً منتظمًا في المستشفى:
- موافق بشدة
 - موافق
 - محايد
 - معارض
 - معارض بشدة
4. يتم توثيق خطة الرعاية الغذائية (المدخول الغذائي الفردي والسعرات الحرارية المحسوبة اللازمة للمريض سوء التغذية) في سجل المريض في المستشفى الذي أعمل فيه:
- موافق بشدة
 - موافق
 - محايد
 - معارض
 - معارض بشدة
5. يتم تقييم الحالة التغذوية للمرضى قبل خروجهم من المستشفى:
- موافق بشدة
 - موافق
 - محايد
 - معارض
 - معارض بشدة
6. يتم إحالة المريض غير القادر على تحمل التغذية عن طريق الفم أو التغذية المعوية إلى قسم التغذية الوريدية في المستشفى:
- موافق بشدة
 - موافق

- محايد
- معارض
- معارض بشدة

7. يخضع مقدمو الرعاية الصحية المشاركون في فحص التغذية وتقييمها للتدريب على الرعاية التغذوية في

المستشفى الذي أعمل فيه

- موافق بشدة
- موافق
- محايد
- معارض
- معارض بشدة

Annex3: Consent form



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كلية الصحة العامة

تمودج طلب موافقة المرشحين على مشاركتهم في البحث العلمي

العنوان: تقييم المعرفة والمواقف والممارسة بين المرشحين تجاه الرعاية التغلوية في المستشفيات في الخليل / الضفة الغربية

الباحث: السيدة حلا شلالة - طالبة ماجستير 0569351999

المطرف: الدكتور كفاح الزين

تكون الاستمارة من خمسة أقسام، تشمل أسئلة اختيار من متعدد عن المعلومات الفردية واسئلة تخدم طبيعة تعاملك مع أهم الأمور المتعلقة بالرعاية التغلوية للمريض، واسئلة متعلقة بالمعلومات التغلوية. وكذلك عن رأيك حول بعض السلوكيات والمواقف المتعلقة بذلك، ونتمنى من حضرتك إكمال جميع الأسئلة.

التاريخ: 4.2.2023

يلعب المرشحين دورًا مهمًا في عملية الرعاية الغذائية، والتي تشمل أي ممارسة يتم إجراؤها لتحسين سلوك المريض المتعلق بالغذاء والنتائج الصحية اللاحقة ومع ذلك، هناك نقص في الدراسات في فلسطين وخاصة في الضفة الغربية لتقييم مستوى الموقف المعرفي وممارسة الرعاية التغلوية بين المرشحين في فلسطين.

جميع المعلومات المزودة من طرف المرشح هي لغرض البحث العلمي، حيث إن السرية والخصوصية في الحفاظ على هذا المعلومات شيء أساسي في هذا البحث، لذلك لا يوجد اسم أو أي شيء يدل على هوية الشخص الذي قام في تعبئة الاستمارة.

لأي استفسار أو مراجعة يمكنك مراسلة الباحثة

مع الشكر

توقيع المرشح: _____

Annex 4: Ethical committee approval

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التاريخ: 31/1/2023

عزيزتي الطالبة حلا الشالدة المحترمة
برنامج ماجستير الصحة العامة

الموضوع: موافقة لجنة اخلاقيات البحث العلمي

قامت اللجنة الفرعية لأخلاقيات البحث التابعة لكلية الصحة العامة بمراجعة مشروع الرسالة بعنوان:
"Assessment of Knowledge, Attitude, and Practice among Nurses toward nutrition care in Hospitals at Hebron governorate-West Bank"

المقدم من (مشرف البحث/د. كفاح الزين).
يعتبر مشروعك مستوفياً لمتطلبات أخلاقيات البحث في جامعة القدس.
تتمنى لكم كل التوفيق في تسيير المشروع.

ملاحظة: في حالة الحاجة الى موافقة من اللجنة المركزية في الجامعة، تستطيع التقدم باستخدام هذه
الموافقة على الرابط: <https://research.alquds.edu/en/ethics/48-how-to-apply.html>

رئيسة اللجنة الفرعية لأخلاقيات البحث
كلية الصحة العامة
د. نهى الشريف



نسخة/ أعضاء لجنة البحث
نسخة/ الملف

Jerusalem Branch/Telefax 02-2799234
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فرع القدس / تليفاكس 02-2799234
فرع غزة / تليفاكس 08-2644220-2644210
ص.ب. 51000 القدس

Annex 5: Approval letters

State of Palestine Ministry of Health Education in Health and Scientific Research Unit		دولة فلسطين وزارة الصحة وحدة التعليم الصحي والبحث العلمي
Ref.:		الرقم: ٥٥١٩٧١/٥٥٨
Date:		التاريخ: ٥٥٨/٥٥٨/٥٥٨
<p>ق. أ. الوكيل المساعد لشؤون المستشفيات والطوارئ المحترم،،، تحية واحترام،،،</p> <p><u>الموضوع: تسهيل مهمة بحث</u></p> <p>يرجى تسهيل مهمة الطالبة: حلا الشالدة- برنامج ماجستير الصحة العامة/ جامعة القدس، ويأشرف د. كفاح الزين، في عمل بحث بعنوان:</p> <p>“Assessment of Knowledge, Attitude, and Practice among Nurses towards nutrition care in Hospitals at Hebron/ West Bank”</p> <p>من خلال السماح للطالبة بالحصول على معلومات من خلال تعبئة استبانة من قبل الممرضين/ات عينة الدراسة، وذلك في:</p> <p style="text-align: center;">- مستشفى عاليه - مستشفى بطا - مستشفى المحتسب</p> <p>على ان يتم الالتزام بالسياسات و اخلاقيات البحث العلمي، وعدم التعرض للمعلومات الشخصية للمرضى. على ان يتم تزويد الوزارة بنسخة PDF من نتائج البحث. مع الاحترام،،،</p> <p>د. عبد الله القواسمي رئيس وحدة التعليم الصحي والبحث العلمي</p> <p>نسخة: عميد كلية الصحة العامة المحترم/ جامعة القدس</p> 		
Telfax: 09-2333901	scientificresearch.dep@gmail.com	تلفاكس: 09-2333901



التاريخ: 2023/11/18

حضرة الدكتور حازم الشلالة المحترم
مدير مستشفى الميزان

الموضوع: تسهيل مهمة الطالبة حلا الشلالة

تحية طيبة وبعد،،

تقوم الطالبة حلا الشلالة/ برنامج ماجستير الصحة العامة/ كلية الصحة العامة/ جامعة القدس بإجراء بحث الرسالة بإشراف د. كفاح
الزوين وبمعاون:

**Assessment of Knowledge, Attitude, and Practice among Nurses toward nutrition care in
Hospitals at Hebron / West Bank**

هي بحاجة الى توزيع امثلة الدراسة على المرضى في مستشفى الميزان، لذا نرجو من حضرتكم تسهيل مهمة الطالبة والسماح لها
بتوزيع الاستقالة على المرضى العاملين في قسم المستشفى باستثناء ممرضين التخدير والطوارئ لإنهاء إجراءات البحث، علما
بان المعلومات ستكون لأغراض البحث العلمي فقط.

وتفضلوا بقبول فائق الاحترام،

كلية الصحة العامة
Faculty of Public Health



د. حازم الشلالة

عميد كلية الصحة العامة

لمسألة: الملف

Al-Quds University
Jerusalem
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جامعة القدس
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كلية الصحة العامة

التاريخ: 2023/11/18

حضرة الدكتور يوسف التكروري المحترم
مدير مستشفى الأهلي

الموضوع: تسهيل مهمة الطالبة حلا الشلانة

تحية طيبة وبعد،،

تقوم الطالبة حلا الشلانة/ برنامج ماجستير الصحة العامة/ كلية الصحة العامة/ جامعة القدس بإجراء بحث الرسالة بإشراف د. كفاح الزين ويعتوان:

Assessment of Knowledge, Attitude, and Practice among Nurses toward nutrition care in Hospitals at Hebron / West Bank

هي بحاجة الى توزيع استبانة للدراسة على الممرضين في مستشفى الأهلي، لذا نرجو من حضرتكم تسهيل مهمة الطالبة والسماح لها بتوزيع الاستبانة على الممرضين العاملين في القسم المستشفى باستثناء ممرضين التخدير والطوارئ لإنهاء إجراءات البحث، علما بأن المعلومات ستكون لأغراض البحث العلمي فقط.

وتفضلوا بقبول فائق الاحترام،

شاهة الصحة العامة
Faculty of Public Health



د. حازم اغا

عميد كلية الصحة العامة

نسخة: الملف

Jerusalem
P.O.Box 51000
Telefax +970-2-2799234
Email: sphealth@admis.aquds.edu

رقم الفس / تليفون 02-2799234
ص.ب. 51000 القدس
البريد الإلكتروني: sphealth@admis.aquds.edu

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جامعة القدس
القدس
كلية الصحة العامة

التاريخ: 2023/11/18

حضرة الدكتور حاتم البربروي المحترم
المدير العام لمستشفى الهلال الأحمر الفلسطيني/ الخليل

الموضوع: تسهيل مهمة الطالبة حلا الشالدة

تحية طيبة وبعد،،

تقوم الطالبة حلا الشالدة/ برنامج ماجستير الصحة العامة/ كلية الصحة العامة/ جامعة القدس بإجراء بحث الرسالة بإشراف د. كلاح
الزين ويعنوان:

**Assessment of Knowledge, Attitude, and Practice among Nurses toward nutrition care in
Hospitals at Hebron / West Bank**

هي بحاجة الى توزيع استبانة الدراسة على الممرضين في مستشفى الهلال الأحمر الفلسطيني/ الخليل، لذا نرجو من حضرتكم
تسهيل مهمة الطالبة والسماح لها بتوزيع الاستبانة على الممرضين العاملين فيقسام المستشفى باستثناء ممرضين قديمين والعلواري
لإنهاء إجراءات البحث، علما بان المعلومات ستكون لأغراض البحث العلمي فقط.

وتفضلوا بقبول فائق الاحترام.

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